

1. Identification of Substance & Company

Product

Product name	Tanking Mastic (P&S)
Other names	Carlisle CCW-704
Product code	SES014
HSNO approval	HSR002669
Approval description	Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017
UN number	1993
DG class	3
Proper Shipping Name	FLAMMABLE LIQUID, N.O.S.
Packaging group	III
Hazchem code	3Y
Uses	Solvent-based rubberized bitumen mastic

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

3.1C
6.1E (respiratory irritation)
6.3A
6.4A
6.8B
6.9B
9.1B

Hazard Statements

H226 - Flammable liquid and vapour.
H335 - May cause respiratory irritation.
H315 - Causes skin irritation.
H320 - Causes eye irritation.
H361 - Suspected of damaging fertility or the unborn child.
H371 - May cause damage to organs through prolonged or repeated exposure.
H411 - Toxic to aquatic life with long lasting effects.

SYMBOLS

WARNING



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P103 - Read label before use.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe vapours.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray*.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection*.
P281 - Use personal protective equipment as required.

P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before re-use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
asphalt	8052-42-4	0-45%
Bitumen emulsion	64742-93-4	0-45%
Distillates, petroleum, petroleum residues vacuum	68955-27-1	0-45%
Solvent naphtha (petroleum), light aromatic	64742-95-6	10-30%
Cumene	98-82-8	0.1-1%
1,2,4-trimethylbenzene	95-63-6	3-7%
Xylene	1330-20-7	0.1-1%
Limestone	1317-65-3	10-30%
Crystalline Silica	14808-60-7	0.1-1%
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2	5-10%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities

Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed	Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor if experiencing symptoms.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use.
Inhaled	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3Y

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >1500L (containers >5L) 500L (containers ≤5L) 250L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds (2016)	Ingredient	WES-TWA*	WES-STEL
	asphalt	5mg/m ³	data unavailable
	Solvent naphtha (petroleum), light aromatic	100ppm, 525mg/m ³	data unavailable
	Cumene	25ppm, 125mg/m ³	75ppm, 375mg/m ³
	1,2,4-trimethylbenzene	25ppm, 123mg/m ³	data unavailable
	Xylene	50ppm, 217mg/m ³	data unavailable
	Limestone	10mg/m ³	data unavailable
	Crystalline Silica	0.1mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.

Skin



Protective gloves are recommended. Nitrile gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use an respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	black paste
Odour	petroleum odour
pH	no data
Vapour pressure	3mmHg
Viscosity	no data
Boiling point	no data
Volatile materials	200g/L
Freezing / melting point	no data
Solubility	negligible in water
Specific gravity / density	no data
Flash point	108°F = 42°C
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Strong oxidiser
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon, hydrocarbons
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: large amounts may cause gastrointestinal irritation.
 IF IN EYES: May cause mild eye irritation. IF ON SKIN: Causes skin irritation.
 IF INHALED: May cause respiratory irritation. May cause drowsiness or dizziness.
 CHRONIC TOXICITY:

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Bitumen emulsion >5000mg/kg, Distillates, petroleum, petroleum residues vacuum 4320mg/kg (rat), Solvent naphtha (petroleum), light aromatic >15000mg/kg (rat), Cumene 1400 mg/kg bw (rat), 1,2,4-trimethylbenzene 3280 mg/kg (rat), Xylene 1590 mg/kg (mouse), Limestone >5000mg/kg, Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, salts with bentonite >5000mg/kg.
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is >5000 mg/kg. Data considered includes: Bitumen emulsion >2000mg/kg, Distillates, petroleum, petroleum residues vacuum >2000mg/kg (rabbit), Solvent naphtha (petroleum), light aromatic >3160 mg/kg (rabbit), Cumene 3160 mg/kg bw (rabbit), 1,2,4-trimethylbenzene data unavailable, Xylene >1700mg/kg, m-xylene: 3228 mg/kg/day (rabbits).
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is 20mg/L. Data considered includes: Bitumen emulsion >94.4mg/m ³ , Solvent naphtha (petroleum), light aromatic >12mg/L (rat), Cumene 40 mg/l (rat), 1,2,4-trimethylbenzene 18mg/l (4h, rat), Xylene 27.6 mg/L (rat, vapour), Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, salts with bentonite >12.6mg/L (4h).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant, because at least one of the ingredients (xylene) present in greater than 0.1% is suspected to be a reproductive or developmental toxicant.
	Systemic	The mixture is considered to be a suspected target organ toxicant, because at least one of the ingredients (xylene) present in greater than 1% is suspected to be a target organ toxicant. This mixture may affect the CNS if inhaled and cause dizziness and drowsiness. Xylene may affect the liver, kidney and CNS.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be toxic towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: Distillates, petroleum, petroleum residues vacuum 48mg/L (96h, Brachydanio rerio), Solvent naphtha (petroleum), light aromatic 2200mg/L (96hr, fish), 2.6 mg/L (96hr, Crustacea), Cumene 2.7 mg/l (96hr, Salmo gairdneri), 0.6 mg/l (48hr, Daphnia magna), 2.6 mg/l (72hr, algae), 1,2,4-trimethylbenzene 7.72mg/L
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	(96hr, Pimephales promelas (fathead minnow)), 17mg/L (48hr, Cancer magister), , Xylene 8.5mg/l (48hr, Palaemonetes pugio (Crustacea)), 3.3 mg/l (96hr, Oncorhynchus mykiss), 10mg/l (72hr, Skeletonema costatum).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	This mixture is not considered toxic towards terrestrial vertebrates.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1993	Proper shipping name:	FLAMMABLE LIQUID, N.O.S.
Class(es)	NA	Packing group:	III
Precautions:	Flammable liquid Marine Pollutant	Hazchem code:	3Y

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017. All ingredients are listed on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L is stored in any one location.
Location compliance certificate	Required if > 1500L (containers >5L), 500L (containers ≤5L), 250L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 500L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals9
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number

WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.
References	
Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
August 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Elastigum
Other names	General Stick
Product code	SES015
HSNO approval	HSR002662
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1133
DG class	3
Proper Shipping Name	ADHESIVES
Packaging group	III
Hazchem code	3Y
Uses	Bituminous solvent mastic for the building industry

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

3.1C
6.3B
6.8B
6.9B
9.1C

Hazard Statements

H226 - Flammable liquid and vapour.
H316 - Causes mild skin irritation.
H361 - Suspected of damaging fertility or the unborn child.
H371 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

SYMBOLS

WARNING



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P103 - Read label before use.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe vapours.

P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/eye/face protection.
 P281 - Use personal protective equipment as required.
 P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P332+P313 - If skin irritation occurs: Get medical advice/ attention.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Solvent naphtha (petroleum), light aromatic	64742-95-6	10-20%
Xylene	1330-20-7	1-3%
ingredients not contributing to HSNO classes	mixture	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.
Eye contact If product gets in eyes, wash material from them with running water for several minutes. If symptoms persist, seek medical advice.
Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/ attention.
Inhaled Generally, inhalation of vapours is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances: Unknown.
Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code: 3Y

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location compliance certificates must be available if storing >1500L (containers >5L), 500L (containers ≤5L), 250L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

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NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	Solvent naphtha (petroleum), light aromatic	100ppm, 525mg/m ³	data unavailable
	Xylene	50ppm, 217mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes	Protective eyewear is not normally necessary when using this product. However, it is always prudent to use protective eyewear if splashes are likely.
Skin	If discomfort is felt (e.g., if pre-existing conditions exist, such as dermatitis, cuts or sensitive skin), gloves may be helpful. If you suffer from dermatitis type skin conditions, use gloves. Nitrile gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use.
Respiratory	A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a respirator with an organic

vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	black paste
Odour	no data
pH	no data
Vapour pressure	no data
Viscosity	>20.5mm ² / @ 40°C
Boiling point	no data
Volatile materials	NA
Freezing / melting point	no data
Solubility	insoluble in water
Specific gravity / density	1.44kg/L @ 20°C +/-0.040
Flash point	>30°C
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Acids and bases and strong oxidisers.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon.
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: if large quantities are swallowed: symptoms include nausea and vomiting.

IF ON SKIN: repeated and prolonged exposure may cause skin irritation and dermatitis due to degreasing properties of the solvent.

IF INHALED: vapours may cause dizziness and drowsiness. High concentrations may cause central nervous system depression, headaches, dizziness, tiredness and incoordination and in extreme cases loss of consciousness.

CHRONIC TOXICITY: May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure: central nervous system, respiratory system, blood, liver.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Solvent naphtha (petroleum), light aromatic >15000mg/kg (rat), Xylene 1590 mg/kg (mouse).
	Dermal	No evidence of dermal toxicity.
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >5,000 ppm. Data considered includes: Solvent naphtha (petroleum), light aromatic >12mg/L (rat), Xylene 27.6 mg/L (rat, vapour).
	Eye	The mixture is not considered to be an eye irritant.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.

Chronic	Sensitisation Mutagenicity Carcinogenicity Reproductive / Developmental Systemic Aggravation of existing conditions	No ingredient present at concentrations > 0.1% is considered a sensitizer. No ingredient present at concentrations > 0.1% is considered a mutagen. No ingredient present at concentrations > 0.1% is considered a carcinogen. The mixture is considered to be a suspected reproductive or developmental toxicant. Xylene is classed 6.8B by EPA. The mixture is considered to be a suspected target organ toxicant. Xylene may affect the CNS. None known.
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12. Ecological Data

Summary

This mixture may be harmful towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 10 mg/L and 100 mg/L. Data considered includes: Solvent naphtha (petroleum), light aromatic 2200mg/L (96hr, fish), 2.6 mg/L (96hr, Crustacea), , Xylene 8.5mg/l (48hr, Palaemonetes pugio (Crustacea)), 3.3 mg/l (96hr, Oncorhynchus mykiss), 10mg/l (72hr, Skeletonema costatum).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	Not considered ecotoxic towards terrestrial vertebrates.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1133	Proper shipping name:	ADHESIVES
Class(es)	3	Packing group:	III
Precautions:	Flammable liquid	Hazchem code:	3Y

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017.
All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L is stored in any one location.
Location compliance certificate	Required if > 1500L (containers >5L), 500L (containers ≤5L), 250L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 500L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number

WES Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls EPA notices, www.epa.govt.nz, Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.
Other References: Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
August 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	BMA Solvent
Other names	Not assigned
Product code	SES225
HSNO approval	HSR002650
Approval description	Solvents (Flammable) Group Standard 2017
UN number	1993
DG class	3
Proper Shipping Name	FLAMMABLE LIQUID, n.o.s. (contains toluene, acetone, solvent naphta)
Packaging group	II
Hazchem code	3YE
Uses	Solvent for roofing systems

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002650, Solvents (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

Hazard Statements

3.1B	H225 - Highly flammable liquid and vapour.
6.1D (oral)	H302 - Harmful if swallowed.
6.1E (aspiration)	H304 - May be fatal if swallowed and enters airways.
6.3A	H315 - Causes skin irritation.
6.4A	H319 - Causes serious eye irritation.
6.8B	H361 - Suspected of damaging fertility or the unborn child.
6.9B (narcotic)	H336 - May cause drowsiness or dizziness.
6.9B	H371 - May cause damage to organs through prolonged or repeated exposure.
9.1B	H411 - Toxic to aquatic life with long lasting effects.
9.3C	H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
 P102 - Keep out of reach of children.
 P103 - Read label before use.

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/eye/face protection.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P331 - Do NOT induce vomiting.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before re-use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
toluene	108-88-3	10-30%
acetone	67-64-1	10-30%
solvent naphtha (petroleum), light aliphatic	64742-89-8	30-60%
ingredients not contributing to HSNO classes	mixture	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is recommended. Accessible eyewash is recommended

Exposure

Swallowed IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.
Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.
Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3YE

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location compliance certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Std	Ingredient	WES-TWA*	WES-STEL
	toluene	50ppm, 188 mg/m ³ (skin)	data unavailable
	acetone	500ppm, 1185mg/m ³	1000ppm, 2375 mg/m ³

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin



Protective gloves are recommended. Nitrile, teflon or PVA gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. . If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	Liquid
Odour	no data
pH	no data
Vapour pressure	no data
Viscosity	no data
Boiling point	110-111°C (Toluene)
Volatile materials	no data
Freezing / melting point	no data
Solubility	no data
Specific gravity / density	no data
Flash point	4°C (Toluene)
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	no data

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Oxidisers, strong acids, bases.
Substance Specific	none known
Incompatibility	
Hazardous decomposition products	Oxides of carbon
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death.

IF IN EYES: may cause eye irritation.

IF ON SKIN: may cause skin irritation. Repeated or prolonged contact may cause drying out of the skin resulting in non-allergic dermatitis. This product can be absorbed through the skin.

INHALED: high concentrations of vapours may cause dizziness and drowsiness.

CHRONIC TOXICITY: Toluene vapours may cause reversible damage to kidneys and liver. Prolonged exposure can cause nerve damage (CNS). Toluene may cause damage to foetus possible fetotoxicity, paternal effects. Toluene may cause ototoxicity.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is 300 and 2000 mg/kg. Data considered includes: toluene 636 mg/kg (rat), acetone 3000 mg/kg (mouse). Solvent naphtha is an aspiration hazard.
	Dermal	No evidence of acute dermal toxicity.
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is 20mg/L. Data considered includes: toluene 12.5 - 28.8 mg/l (vapour, rat).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients (toluene, acetone, hexane) present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients (Toluene, acetone) present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant, because at least one of the ingredients (toluene) present in greater than 0.1% is suspected to be a reproductive or developmental toxicant.
	Systemic	The mixture is considered to be a suspected target organ toxicant (toluene, hexane), because at least one of the ingredients present in greater than 1% is suspected to be a target organ toxicant. This mixture may cause dizziness and drowsiness.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be toxic towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: toluene 5.8 mg/l (96hr, Oncorhynchus mykiss), 11.5 mg/l (48hr, Daphnia magna), 12.5mg/L (72hr, Algal), solvent naphtha is classed 9.1B by EPA.
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	The mixture is considered harmful to terrestrial vertebrates. See acute toxicity above.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions

There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.

Disposal method

Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.

Contaminated packaging

Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of

containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1993	Proper shipping name:	FLAMMABLE LIQUID, n.o.s. (contains toluene, acetone, solvent naphta)
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid, Marine pollutant.	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002650, Solvents (Flammable) Group Standard 2017.

All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002650, Solvents (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters

HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Torch-on Primer Solvent Based
Other names	General Rapid Primer
Product codes	SES299, SES297
HSNO approval	HSR002669
Approval description	Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017
UN number	1263
DG class	3
Proper Shipping Name	PAINT
Packaging group	II
Hazchem code	3YE
Uses	Bituminous solvent primer for the building industry

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

3.1B
6.1E (aspiration)
6.1D (oral)
6.3A
6.4A
6.6B
6.7B
6.8B
6.9B
6.9B (narcotic)
9.1B
9.3C

Hazard Statements

H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H320 - Causes eye irritation.
H341 - Suspected of causing genetic defects.
H341 - Suspected of causing cancer.
H361 - Suspected of damaging fertility or the unborn child.
H371 - May cause damage to organs through prolonged or repeated exposure.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.
H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
 P102 - Keep out of reach of children.
 P103 - Read label before use.
 P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P210 - Keep away from ignition sources. No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground/bond container and receiving equipment.
 P241 - Use explosion-proof electrical equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/eye protection/face protection.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P301+P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
 P331 - Do NOT induce vomiting.
 P330 - Rinse mouth.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P363 - Wash contaminated clothing before reuse.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
 P391 - Collect spillage.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Xylene	1330-20-7	10-25%
Toluene	108-88-3	10-20%
Styrene	100-42-5	5-10%
Solvent Naphtha (petroleum) light aromatic	EC no: 918-668-5	5-10%
n-Butyl acetate	123-86-4	3-5%
Ethyl acetate	141-78-6	2-3%
Methylisobutyl ketone	trade secret	2-3%
Methyl ethyl ketone	78-93-3	2-3%
Acetone	67-64-1	2-3%
Ethylbenzene	100-41-4	0.2-3%
Heptane	142-82-5	1-2.5%
Hexane	110-54-3	1-2.5%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Call a POISON CENTRE or doctor/physician if you feel unwell.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.

Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code: 3YE

6. Accidental Release Measures

Containment If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.

Emergency procedures In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).

Clean-up method Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Disposal Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.

Precautions Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location compliance certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents. Store in original container only.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds (2016)	Ingredient	WES-TWA*	WES-STEL
	xylene	50ppm, 217mg/m ³	data unavailable
	toluene	50ppm, 188 mg/m ³ (skin)	data unavailable
	styrene ⁺	50ppm, 213mg/m ³⁺	100ppm, 426mg/m ³⁺
	n-butyl acetate	150ppm, 713mg/m ³	200ppm, 950mg/m ³
	ethyl acetate	200ppm, 720mg/m ³	data unavailable
	methylisobutyl ketone	50ppm, 205mg/m ³	75ppm, 307mg/m ³
	methyl ethyl ketone	150ppm, 445mg/m ³	300ppm, 890mg/m ³
	acetone	500ppm, 1185mg/m ³	1000ppm, 2375 mg/m ³
	ethylbenzene	100ppm, 434mg/m ³	125ppm, 543mg/m ³
	heptane	400ppm, 1640mg/m ³	500ppm, 2050mg/m ³
	hexane	20ppm, 72mg/m ³	data unavailable




* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

+ NOTE: March 2018: proposal to lower the WES of Styrene to 20ppm (TWA) and 40ppm (STEL)

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes		Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.
Skin		Protective gloves are recommended. PVA gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.
Respiratory		A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	black Liquid
Odour	no data
pH	no data
Vapour pressure	no data
Viscosity	no data
Boiling point	80°C
Volatile materials	566.64g/L
Freezing / melting point	no data
Solubility	insoluble in water
Specific gravity / density	0.930kg/L @20°C (+/-0.030)
Flash point	<21°C
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination. Keep away from direct sunlight. Keep away from plastics.
Incompatible groups	Oxidising agents, peroxides, strong acids, sulphur, strong bases, trichloromethane, metals such as aluminium and copper.
Hazardous decomposition products	Styrene, peroxides, methane, carbon dioxide, carbon monoxide, organic acids and alcohols
Hazardous reactions	Styrene polymerises readily above 65°C with risk of fire and explosion.

11. Toxicological Information

Summary

IF SWALLOWED: May be fatal if swallowed and enters airways. May cause gastrointestinal irritation.

IF IN EYES: Causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing. The vapour also irritates the eyes.

IF ON SKIN: Causes skin irritation. May cause allergic skin reaction.

IF INHALED: Can irritate the nose and throat. At high concentrations: can harm the nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness.

CHRONIC TOXICITY: Suspected of causing cancer (styrene, ethylbenzene). May damage fertility or the unborn child (xylene, toluene, ethylbenzene, styrene). Causes damage to organs through prolonged or repeated exposure: central nervous system, respiratory system, blood, liver. Toluene may cause ototoxicity.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is between 300 and 2000 mg/kg. Data considered includes: xylene 1590 mg/kg (mouse), toluene 636 mg/kg (rat), styrene 316 mg/kg (mouse), n-butyl acetate 3200 mg/kg (rabbit), ethyl acetate 4100mg/kg (mouse), Methylisobutyl ketone 1600mg/kg (guinea pig), methyl ethyl ketone 2737 mg/kg (rat), acetone 3000 mg/kg (mouse), ethylbenzene 3500mg/kg (rat).
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is >5000 mg/kg. Data considered includes: xylene >1700mg/kg, m-xylene: 3228 mg/kg/day (rabbits).
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >20mg/L (vapour). Data considered includes: xylene 27.6 mg/L (rat, vapour), toluene 12.5 - 28.8 mg/l (vapour, rat), styrene 6.8 mg/l (mouse, vapour), n-butyl acetate 2 mg/l (rat, dust/mist), ethyl acetate L ₅₀ >22.5mg/L, ethylbenzene 9.6mg/L (vapour, rat).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.

Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	The mixture is considered to be a suspected mutagen, because at least one of the ingredients (styrene) present in greater than 0.1% is suspected to be a mutagen.
	Carcinogenicity	The mixture is considered to be a suspected carcinogen, because at least one of the ingredients (styrene and ethyl benzene) present in greater than 0.1% is suspected to be a carcinogen. Ethylbenzene is possibly carcinogenic to humans (IARC Group 2B). Not classed as carcinogenic in EU. Styrene is possibly carcinogenic to humans (IARC Group 2B).
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant, because at least one of the ingredients (toluene, xylene, ethylbenzene, styrene) present in greater than 0.1% is suspected to be a reproductive or developmental toxicant. Toluene may cause damage to foetus possible fetotoxicity and paternal effects.
	Systemic	The mixture is considered to be a suspected target organ toxicant, because at least one of the ingredients (toluene, xylene, ethylbenzene, styrene) present in greater than 1% is suspected to be a target organ toxicant. This mixture may affect the CNS if inhaled and cause dizziness and drowsiness.
	Aggravation of existing conditions	Toluene may cause ototoxicity. Xylene may affect the liver, kidney and CNS. None known.

12. Ecological Data

Summary

This mixture is considered toxic towards aquatic organisms with possible long term effects and harmful towards terrestrial vertebrates.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: xylene 8.5mg/l (48hr, Palaemonetes pugio (Crustacea)), 3.3 mg/l (96hr, Oncorhynchus mykiss), 10mg/l (72hr, Skeletonema costatum), not bioaccumulative, readily biodegradable., toluene 5.8 mg/l (96hr, Oncorhynchus mykiss), 11.5 mg/l (48hr, Daphnia magna), 12.5mg/L (72hr, Algal), styrene 0.72 mg/l (96hr, algae), 4.7 mg/l (48hr, Daphnia magna), 9.1 mg/L (96hr, Sheepshead minnow), n-butyl acetate 18 mg/l (96hr, Fathead minnow), 32 mg/l (48hr, Brine shrimp), ethylbenzene 4.6mg/L (72hr, Selenastrum capricornutum (Algae)), 4.2mg/L (96hr, Oncorhynchus mykiss (Fish, fresh water)), 2.1mg/L (48hr, Daphnia magna (Crustacea))
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	Considered as ecotoxic to terrestrial vertebrates. Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is between 500 and 2000 mg/kg. See acute toxicity.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1263	Proper shipping name:	PAINT
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid Marine pollutant.	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017. All ingredients are listed on the NZIoC

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Required if > not required is handled or stored.
Tracking	This substance is required to be tracked if > not required is present.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), is stored.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals9
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is

STEL	prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
TWA	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
UN Number	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
WES	United Nations Number Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Torch-on Primer Water based
Other names	General Eco-Primer
Product code	20L - SES300, 1L - SES297
HSNO approval	non hazardous
Approval description	non hazardous
UN number	NA
DG class	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	Coating/bituminous paint with water base for the building industry

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is not classified as a hazardous according to the criteria of the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017

Classes

none

Hazard Statements

SYMBOLS

none

Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

none

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Bitumen	8052-42-4	not specified
Emulsifiers	Proprietary	not specified
Water	7732-18-5	not specified

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities

Ready access to running water is recommended.

Exposure

Swallowed	The product is not considered harmful if swallowed. In case of persistent symptoms, contact the National Poisons Centre or a Doctor.
Eye contact	If product gets in eyes, wash material from them with running water for several minutes. If symptoms persist, seek medical advice.
Skin contact	Flush with large amounts of water. Remove all contaminated clothing. Contact a doctor if experiencing symptoms.
Inhaled	Generally, inhalation of vapours is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	There are no specific risks for fire/explosion for this chemical. It is non-flammable.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	No special measures are required.
Hazchem code:	NA

6. Accidental Release Measures

Containment	In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	No special protective clothing is normally necessary.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	Bitumen	5mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes	Protective eyewear is not normally necessary when using this product. However, it is always prudent to use protective eyewear if splashes are likely.
Skin	Protective gloves and clothing are not normally necessary. However, it is prudent to wear gloves when handling chemicals in bulk or for an extended period of time.
Respiratory	Respirator is not required under normal use. Ensure adequate natural ventilation. If product is being used in confined conditions, the use of a mask or respirator may be preferred.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	brown liquid
Odour	no data
pH	8-10
Vapour pressure	no data
Viscosity	no data
Boiling point	no data
Volatile materials	no data
Freezing / melting point	no data
Solubility	water soluble
Specific gravity / density	1kg/L @20°C
Flash point	no data
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible groups	none known
Substance Specific Incompatibility	none known
Hazardous decomposition products	none known
Hazardous reactions	none known

11. Toxicological Information

Summary

IF IN EYES: direct contact may cause eye irritation.

IF ON SKIN: prolonged or repeated contact with skin may result in slight skin irritation.

IF INHALED: excessive exposure to vapours or spray mist may cause slight irritation to throat.

CHRONIC: heating bitumen may release emissions that are probably carcinogenic to humans if inhaled.

Supporting Data

Acute	Oral	No evidence of acute oral toxicity.
	Dermal	No evidence of acute dermal toxicity.
	Inhaled	No evidence of acute inhalation toxicity. Fumes/vapours may be irritating to throat.
	Eye	The mixture is considered to be an eye irritant.
Chronic	Skin	The mixture is considered to be a skin irritant.
	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	Bitumen is classed by IARC as possibly carcinogenic to humans, group 2A. This refers to oxidised bitumen and their emissions during for roofing, e.g. when heated to a high temperature. This mixture is a water based emulsified bitumen and is used at room temperature. No emissions are expected during use. No studies have been carried out on water based emulsions of bitumen.
	Reproductive / Developmental	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	No ingredient present at concentrations > 1% is considered a target organ toxicant.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is not expected to be ecotoxic in the environment.

Supporting Data

Aquatic	No data for mixture is available. Using EC ₅₀ 's for ingredients, the estimated EC ₅₀ for the mixture is > 100 mg/L.
Bioaccumulation	Not applicable.
Degradability	Not applicable.
Soil	No data available for the mixture.
Terrestrial vertebrate	This product is not considered harmful to terrestrial vertebrates. No LC ₅₀ (diet) data for ingredients are available and the classification is based on the LD ₅₀ (oral) – see section 11 – oral toxicity.
Terrestrial invertebrate	The mixture is not considered harmful to terrestrial invertebrates.
Biocidal	Not applicable

13. Disposal Considerations

Restrictions	Local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	NA

15. Regulatory Information

This product is not classified as a hazardous according to the criteria of the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017.

All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	Not required.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Not required.
Approved handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Not required.
Signage	Not required.
Location test certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval non hazardous, non haz Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number

WES

Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data

Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).

Controls

EPA notices, www.epa.govt.nz, Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz

WES

The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.

Other References:

Suppliers SDS, EU ECHA, ChemIDplus

Review

Date

July 2018

Reason for review

Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Vapour Barrier Primer
Other names	Carlisle CCW-702
Product code	SES301
HSNO approval	HSR002662
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1133
DG class	3
Proper Shipping Name	ADHESIVES
Packaging group	II
Hazchem code	3YE
Uses	Solvent based contact adhesive for industrial use only

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

3.1B
 6.1D (oral)
 6.1D (inhalation)
 6.3A
 6.4A
 6.8B
 6.9B (narcotic)
 6.9B
 9.1B
 9.3C

Hazard Statements

H225 - Highly flammable liquid and vapour.
 H302 - Harmful if swallowed.
 H332 - Harmful if inhaled.
 H315 - Causes skin irritation.
 H319 - Causes serious eye irritation.
 H361 - Suspected of damaging fertility or the unborn child.
 H336 - May cause drowsiness or dizziness.
 H371 - May cause damage to organs through prolonged or repeated exposure.
 H411 - Toxic to aquatic life with long lasting effects.
 H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
 P102 - Keep out of reach of children.
 P103 - Read label before use.
 P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from ignition sources. No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground/bond container and receiving equipment.
 P241 - Use explosion-proof electrical equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/eye/face protection.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P301+P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
 P331 - Do NOT induce vomiting.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P332+P313 - If skin irritation occurs: Get medical advice/ attention.
 P362 - Take off contaminated clothing and wash before re-use.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
 P391 - Collect spillage.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
toluene	108-88-3	40-70%
acetone	67-64-1	10-15%
petroleum hydrocarbon resin	Proprietary	10-30%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is recommended. Accessible eyewash is recommended

Exposure

Swallowed IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.
Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.
Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3YE

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location compliance certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Std	Ingredient	WES-TWA*	WES-STEL
	toluene	50ppm, 188 mg/m ³ (skin)	data unavailable
	acetone	500ppm, 1185mg/m ³	1000ppm, 2375 mg/m ³

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin



Protective gloves are recommended. Nitrile, teflon or PVA gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. . If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	thin dark blue liquid
Odour	sweet solvent odour
pH	no data
Vapour pressure	54.6mmHg
Viscosity	350cps
Boiling point	113-230°C
Volatile materials	450g/L
Freezing / melting point	no data
Solubility	negligible in water
Specific gravity / density	no data
Flash point	-18°C
Danger of explosion	no data
Auto-ignition temperature	465°C
Upper & lower flammable limits	LEL: 1.3%, UEL: 12.8%
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Oxidisers, strong acids, bases.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death.

IF IN EYES: may cause eye irritation.

IF ON SKIN: may cause skin irritation. Repeated or prolonged contact may cause drying out of the skin resulting in non-allergic dermatitis. This product can be absorbed through the skin.

INHALED: high concentrations of vapours may cause dizziness and drowsiness.

CHRONIC TOXICITY: Toluene vapours may cause reversible damage to kidneys and liver. Prolonged exposure can cause nerve damage (CNS). Toluene may cause damage to foetus possible fetotoxicity, paternal effects. Toluene may cause ototoxicity.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is 300 and 2000 mg/kg. Data considered includes: toluene 636 mg/kg (rat), acetone 3000 mg/kg (mouse). Solvent naphtha is an aspiration hazard.
	Dermal	No evidence of acute dermal toxicity.
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is 18mg/L. Data considered includes: toluene 12.5 - 28.8 mg/l (vapour, rat).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients (toluene, acetone, hexane) present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients (Toluene, acetone) present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant, because at least one of the ingredients (toluene) present in greater than 0.1% is suspected to be a reproductive or developmental toxicant.
	Systemic	The mixture is considered to be a suspected target organ toxicant (toluene, hexane), because at least one of the ingredients present in greater than 1% is suspected to be a target organ toxicant. This mixture may cause dizziness and drowsiness.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be toxic towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: toluene 5.8 mg/l (96hr, Oncorhynchus mykiss), 11.5 mg/l (48hr, Daphnia magna), 12.5mg/L (72hr, Algal), solvent naphtha is classed 9.1B by EPA.
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	The mixture is considered harmful to terrestrial vertebrates. See acute toxicity above.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions

There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.

Disposal method

Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.

Contaminated packaging

Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1133	Proper shipping name:	ADHESIVES
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid, Marine pollutant.	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017. All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters

HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Enviroclad Adhesive
Other names	Sure-weld Bonding Adhesive
Product code	STP000
HSNO approval	HSR002669
Approval description	Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017
UN number	1133
Proper Shipping Name	ADHESIVE
DG class	3
Packaging group	II
Hazchem code	3YE
Uses	contact adhesive

Company Details

Company	Viking Roofspec	
Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

Hazard Statements

3.1B	H225 - Highly flammable liquid and vapour.
6.1E (aspiration)	H304 - May be fatal if swallowed and enters airways.
6.1D (oral)	H302 - Harmful if swallowed.
6.3A	H315 - Causes skin irritation.
6.4A	H320 - Causes eye irritation.
6.5B	H317 - May cause an allergic skin reaction.
6.7B	H341 - Suspected of causing cancer.
6.8B	H361 - Suspected of damaging fertility or the unborn child. (state route if known)
6.9B	H373 - May cause damage to organs through prolonged or repeated exposure.
6.9B (narcotic)	H336 - May cause drowsiness or dizziness.
9.1B	H411 - Toxic to aquatic life with long lasting effects.
9.3C	H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other Classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/eye protection/face protection.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P331 - Do NOT induce vomiting.
P330 - Rinse mouth.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Toluene	108-88-3	15-40%
Solvent naphtha (petroleum), light aliphatic	64742-89-8	10-30%
Acetone	67-64-1	5-10%
Polychloroprene	9010-98-4	7-13%
Heat reactive phenolic resin	trade secret	1-5%
Styrene Butadiene polymer	trade secret	0.5-1.5%
Chlorinated polypropylene	trade secret	0.5-1.5%
Xylene	1330-20-7	0.5-1.5%
Polyphenol antioxidant	trade secret	0.1-1.0%
Magnesium oxide	1309-48-4	0.1-1.0%
Zinc oxide	1314-13-2	0.1-1.0%
Ethylbenzene	100-41-4	0.1-1.0%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities

Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed

IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Call a POISON CENTRE or doctor/physician if you feel unwell.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.

Skin contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhaled

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:

Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.

Suitable extinguishing substances:

Carbon dioxide, extinguishing powder, foam.

Unsuitable extinguishing substances:

Unknown.

Products of combustion:

Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment:

Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code:

3YE

6. Accidental Release Measures

Containment

If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.

Emergency procedures

In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).

Clean-up method

Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Disposal

Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.

Precautions

Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location compliance certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 10mg/m³ for dusts and mists when limits have not otherwise been established.



NZ Workplace Exposure Stds	Ingredient	WES-TWA	WES-STEL
	Toluene	50ppm, 188 mg/m ³ (skin)	data unavailable
	Solvent naphtha (petroleum), light aliphatic	data unavailable	data unavailable
	Acetone	500ppm, 1185mg/m ³	1000ppm, 2375 mg/m ³
	Magnesium oxide	10mg/m ³ (fume)	data unavailable
	Zinc Oxide	5mg/m ³ (fume)	data unavailable
	Xylene	50ppm, 217mg/m ³	data unavailable
	Ethylbenzene	100ppm, 434mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes		Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.
Skin		Protective gloves are recommended. PVC or rubber gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.
Respiratory		A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	yellowish liquid
Odour	hydrocarbon odour
pH	no data
Vapour pressure	54.1mmHg
Vapour density	3.2 (air =1)
Viscosity	2500 cps
Boiling point	56 - 137 °C
Volatile materials	670 g/L VOC
Freezing / melting point	-95 - -47°C

Solubility	negligible in water
Specific gravity / density	0.849 g/cm ³
Flash point	-20°C
Danger of explosion	no data
Auto-ignition temperature	230°C
Upper & lower flammable limits	LEL: 1%, UEL: 12.8%
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Strong oxidisers, acids, bases
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon, oxides of nitrogen.
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: May be fatal if swallowed and enters airways. May cause gastrointestinal irritation.

IF IN EYES: Causes serious eye irritation.

IF ON SKIN: Causes skin irritation. May cause allergic skin reaction.

IF INHALED: May cause drowsiness or dizziness. May cause respiratory irritation.

CHRONIC TOXICITY: Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure: central nervous system, respiratory system, blood, liver.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is between 300 and 2000 mg/kg. Data considered includes: Toluene 636 mg/kg (rat), Solvent naphtha (petroleum), light aliphatic no, Acetone 3000 mg/kg (mouse).
	Dermal	No evidence of dermal toxicity.
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is 20mg/L (vapour). Data considered includes: Toluene 12.5 - 28.8 mg/l (vapour, rat),
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients (toluene, solvent naphtha (petroleum), light aliphatic, acetone) present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients (toluene, solvent naphtha (petroleum), light aliphatic, acetone) present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	The mixture is considered to be a contact sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	The mixture is considered to be a suspected carcinogen. Ethylbenzene is classed by IARC as Group 2B (possibly carcinogenic to humans).
	Reproductive / Developmental Systemic	The mixture is considered to be a suspected reproductive or developmental toxicant. Xylene and toluene are classed 6.8B by EPA.
	Aggravation of existing conditions	The mixture is considered to be a suspected target organ toxicant. Xylene and toluene may affect the CNS. None known.

12. Ecological Data

Summary

This mixture is toxic towards aquatic organisms with long lasting effects and harmful towards terrestrial vertebrates.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L and at least one of the components is either bioaccumulative or persistent in the aquatic environment. Data considered includes: Toluene 5.8 mg/l (96hr, <i>Oncorhynchus mykiss</i>), 11.5 mg/l (48hr, <i>Daphnia magna</i>), 12.5mg/L (72hr, Algal).
Bioaccumulation	No data
Degradability	No data

Soil	No evidence of soil toxicity.
Terrestrial vertebrate	Considered as ecotoxic to terrestrial vertebrates. Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is between 500 and 2000 mg/kg. See acute toxicity.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1133	Proper shipping name:	ADHESIVE
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017. All ingredients appear on the NZIoC.

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Weathered Membrane Cleaner
Other names	None assigned
Product code	STP001
HSNO approval	HSR002528
Approval description	Cleaning Products (Flammable) Group Standard 2017
UN number	1263
DG class	3
Proper Shipping Name	PAINT RELATED MATERIAL
Packaging group	II
Hazchem code	3YE
Uses	cleaner

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002528, Cleaning Products (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

3.1B
6.1E (aspiration)
6.3B
6.9B
6.9B (narcotic)
9.1B

Hazard Statements

H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H316 - Causes mild skin irritation.
H371 - May cause damage to organs through prolonged or repeated exposure.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P103 - Read label before use.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray*.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.

P280 - Wear protective gloves/eye/face protection.
 P332+P313 - If skin irritation occurs: Get medical advice/ attention.
 P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
 P391 - Collect spillage.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Solvent naphtha (petroleum), light aliphatic	64742-89-8	10-30%
ingredients not contributing to HSN0 classes	mixture	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.
Eye contact If product gets in eyes, wash material from them with running water for several minutes. If symptoms persist, seek medical advice.
Skin contact Flush immediately with water. Remove all contaminated clothing. If skin irritation occurs: Get medical advice/ attention.
Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances: Unknown.
Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code: 3YE

6. Accidental Release Measures

Containment If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in

Disposal	properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services. Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	No ingredient listed		
* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.			

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes	Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if splashes are likely.
Skin	If discomfort is felt (e.g., if pre-existing conditions exist, such as dermatitis, cuts or sensitive skin), gloves may be helpful. If you suffer from dermatitis type skin conditions, use gloves. Nitrile gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.
Respiratory	A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	clear liquid
Odour	hydrocarbon odour
pH	no data
Vapour pressure	11.5mmHg
Viscosity	no data
Boiling point	118-150°C
Volatile materials	no data
Freezing / melting point	no data
Solubility	negligible in water
Specific gravity / density	0.74-0.76
Flash point	18°C
Danger of explosion	no data
Auto-ignition temperature	320°C
Upper & lower flammable limits	LEL: 0.9%, UEL 7%
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Acids and bases and strong oxidisers.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon.
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: if large quantities are swallowed: symptoms include nausea and vomiting.

IF ON SKIN: repeated and prolonged exposure may cause skin irritation and dermatitis due to degreasing properties of the solvent.

IF INHALED: vapours may cause dizziness and drowsiness. High concentrations may cause central nervous system depression, headaches, dizziness, tiredness and incoordination and in extreme cases loss of consciousness.

Supporting Data

Acute	Oral	Solvent Naphtha possesses low acute toxicity for mammals, with LD ₅₀ 's >5000mg/kg. However, it is possible that if Solvent naphtha is taken into the mouth, it would be aspirated into the lungs and might then cause pneumonitis. It is therefore classified 6.1E (aspiration), however the viscosity of this product is very low.
	Dermal Inhaled	No evidence of acute dermal toxicity. Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >20mg/L. Data considered includes: Solvent naphtha (petroleum), light aliph. >20mg/L (estimated)
	Eye Skin	The mixture is not considered to be an eye irritant. The mixture is considered to be a mild skin irritant. Prolonged or repeated skin exposure over a long period of time can result in severe irritant dermatitis.
	Chronic Sensitisation Mutagenicity Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a sensitizer. No ingredient present at concentrations > 0.1% is considered a mutagen. This hydrocarbon solvent is considered carcinogenic by some agencies (based on possible aromatic hydrocarbon concentration), however white spirits is not listed by IARC and not classified by EPA as carcinogenic. Some hydrocarbon solvents are considered carcinogenic – particularly those that contain aromatic compounds (benzene, ethyl benzene).
	Reproductive / Developmental Systemic Aggravation of existing conditions	Some components, e.g., xylene, have been shown to cause foetal toxicity in animals at doses which are maternally toxic. Not expected to impair fertility. No ingredient present at concentrations > 1% is considered a target organ toxicant. None known.

12. Ecological Data

Summary

This mixture may be toxic towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: Solvent naphtha (petroleum), light aliph. no data (see other hydrocarbons).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity
Terrestrial vertebrate	See acute toxicity
Terrestrial invertebrate	No evidence of ecotoxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1263	Proper shipping name:	PAINT RELATED MATERIAL
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid Ecotoxic.	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002528, Cleaning Products (Flammable) Group Standard 2017.
All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Required if > not required is handled or stored.
Tracking	This substance is required to be tracked if > not required is present.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002528, Cleaning Products (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Clear Cut-Edge Sealant
Other names	Not assigned
Product code	STP012A
HSNO approval	HSR002662
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1263
DG class	3
Proper Shipping Name	PAINT RELATED MATERIAL
Packaging group	II
Hazchem code	3YE
Uses	Solvent based Sealant

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

Hazard Statements

3.1B	H225 - Highly flammable liquid and vapour.
6.1D (inhalation)	H332 - Harmful if inhaled.
6.1D (oral)	H302 - Harmful if swallowed.
6.1E (dermal)	H313 - May be harmful in contact with skin.
6.3A	H315 - Causes skin irritation.
6.4A	H320 - Causes eye irritation.
6.8B	H361 - Suspected of damaging fertility or the unborn child.
6.9B	H371 - May cause damage to organs through prolonged or repeated exposure.
6.9B (narcotic)	H336 - May cause drowsiness or dizziness.
9.1D	H402 - Harmful to aquatic life.
9.3C	H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe vapours.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/eye/face protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P330 - Rinse mouth.
P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before re-use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Toluene	108-88-3	45-70
Xylene	1330-20-7	15-40

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.

Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3YE

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	Toluene	50ppm, 188 mg/m ³ (skin)	data unavailable
	Xylene	50ppm, 217mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin



Protective gloves are recommended. Nitrile, teflon or PVA gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. . If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	viscous clear liquid
Odour	solvent odour
pH	no data
Vapour pressure	no data
Viscosity	no data
Boiling point	110-137°C
Volatile materials	732.800g/L
Freezing / melting point	no data
Solubility	negligible in water
Specific gravity / density	0.872g/ml
Flash point	8.9°C
Danger of explosion	no data
Auto-ignition temperature	526°C
Upper & lower flammable limits	LEL: 1.0%, UEL: 7.1%
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Oxidisers, strong acids, bases.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death.

IF IN EYES: may cause eye irritation.

IF ON SKIN: may cause skin irritation. Repeated or prolonged contact may cause drying out of the skin resulting in non-allergic dermatitis. This product can be absorbed through the skin.

INHALED: high concentrations of vapours may cause dizziness and drowsiness.

CHRONIC TOXICITY: Toluene and Xylene vapours may cause reversible damage to kidneys and liver. Prolonged exposure can cause nerve damage (CNS). Toluene and Xylene may cause damage to foetus possible fetotoxicity, paternal effects. Toluene may cause ototoxicity.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is between 300 and 2000 mg/kg. Data considered includes: Toluene 636 mg/kg (rat), Xylene 1590 mg/kg (mouse).
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is between 2000 and 5000 mg/kg. Data considered includes: Xylene >1700mg/kg, m-xylene: 3228 mg/kg/day (rabbits).
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is between 10 and 20mg/L (vapour). Data considered includes: Toluene 12.5 - 28.8 mg/l (vapour, rat), Xylene 27.6 mg/L (rat, vapour).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients (toluene, xylene) present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients (Toluene, xylene, solvent naphtha) present are considered skin irritants in more concentrated form.
	Chronic	
	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant, because at least one of the ingredients (toluene, xylene) present in greater than 0.1% is suspected to be a reproductive or developmental toxicant.
	Systemic	The mixture is considered to be a suspected target organ toxicant (toluene, xylene), because at least one of the ingredients present in greater than 1% is suspected to be a target organ toxicant. This mixture may cause dizziness and drowsiness.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be harmful towards aquatic organisms and towards terrestrial vertebrates.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 and 100 mg/L. Data considered includes: Toluene 5.8 mg/l (96hr, Oncorhynchus mykiss), 11.5 mg/l (48hr, Daphnia magna), 12.5mg/L (72hr, Algal), Xylene 8.5mg/l (48hr, Palaemonetes pugio (Crustacea)), 3.3 mg/l (96hr, Oncorhynchus mykiss), 10mg/l (72hr, Skeletonema costatum).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	The mixture is considered harmful to terrestrial vertebrates. See acute toxicity above.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1263	Proper shipping name:	PAINT RELATED MATERIAL
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017.

All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:	
SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	This substance is required to be tracked if > not required is present.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	One-Part Pourable Sealer (White)
Product code	STP460
HSNO approval	HSR002670
Approval description	Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017
UN number	NA
DG class	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	Moisture cure sealant

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

6.3A
8.3A
9.1C

Hazard Statements

H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H412 - Harmful to aquatic life with long lasting effects

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P264 - Wash hands thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/eye protection/face protection*.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before re-use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTRE or doctor/physician.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Amino silane	1760-24-3	proprietary

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor if experiencing any symptoms. If conscious, give plenty of water to drink.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.

Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: There are no specific risks for fire/explosion for this chemical. It is non-flammable.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code: NA

6. Accidental Release Measures

Containment If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.

Emergency procedures In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).

Clean-up method Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Disposal Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.

Precautions Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards



A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	No ingredients listed		
* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.			

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes		Protect eyes with goggles, safety glasses or full face mask. Avoid wearing contact lenses.
Skin		Avoid any skin contact. Wear overalls, rubber boots and impervious gloves. Vinyl gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking.
Respiratory		A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	viscous white liquid
Odour	mild ester odour
pH	no data
Vapour pressure	no data
Viscosity	30000cps
Boiling point	no data
Volatile materials	<1%
Freezing / melting point	no data
Solubility	negligible in water
Specific gravity / density	1.4g/cm ³
Flash point	no data
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible groups	None known
Substance Specific Incompatibility	None known
Hazardous decomposition products	None known
Hazardous reactions	None known

11. Toxicological Information

Summary

IF SWALLOWED: may be harmful if ingested.
 IF IN EYES: direct contact may cause severe eye irritation/corneal injury.
 IF ON SKIN: may cause slight irritation.
 IF INHALED: product has low volatility, therefore an unlikely form of exposure.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Amino silane 7.46mL/kg.
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is >5000 mg/kg. Data considered includes: Amino silane LDLo 16mL/kg (rabbit).
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >5,000 ppm. Data considered includes: Amino silane 1,49 - 2,44 mg/l (rat).
	Eye	The mixture is considered to be corrosive to the eye. Amino silane may cause corneal injury.
Chronic	Skin	The mixture is considered to be a skin irritant. Amino silane is considered a skin irritant.
	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	No ingredient present at concentrations > 1% is considered a target organ toxicant.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is considered harmful towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 10 mg/L and 100 mg/L. NZ EPA has classed amino silane as 9.1C.
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	See acute toxicity.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	No data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	NA

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017.

All ingredients appear on the NZIoC

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L is stored in any one location.
Location compliance certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the

TWA	TWA is not exceeded Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.
References	
Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus
Review	
Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Water Cut-off mastic
Other names	None assigned
Product code	STP870
HSNO approval	HSR002662
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1133
DG class	3
Proper Shipping Name	ADHESIVES
Packaging group	II
Hazchem code	3YE
Uses	Elastomeric sealer for EPDM and TPO Single-Ply Membranes

Company Details

Company	Viking Roofs spec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofs spec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

Hazard Statements

3.1B	H225 - Highly flammable liquid and vapour.
6.3B	H316 - Causes mild skin irritation.
6.9B	H371 - May cause damage to organs through prolonged or repeated exposure.
9.1B	H411 - Toxic to aquatic life with long lasting effects.

SYMBOLS

DANGER



Other Classifications

This substance does contain silica (quartz) which is classed as a carcinogen (6.7A) if in an inhalable form (e.g. fine dust). However this component is bound by the polymer portion of the sealant. The only way this component would be released is through incineration. This product does not trigger carcinogenicity classifications.

Precautionary Statements

- P103 - Read label before use.
- P210 - Keep away from ignition sources. No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground/bond container and receiving equipment.
- P241 - Use explosion-proof electrical equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P260 - Do not breathe vapours.

P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/eye/face protection.
 P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P332+P313 - If skin irritation occurs: Get medical advice/ attention.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P391 - Collect spillage.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
solvent naphtha (petroleum), light aliphatic	64742-89-8	10-30%
polybutene	trade secret	10-30%
hydrous clay	proprietary	3-7%
hydrotreated paraffinic oil	trade secret	1-5%
silica compound	proprietary	1-5%
polyphenol antioxidant	trade secret	<0.1%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.
Eye contact If product gets in eyes, wash material from them with running water for several minutes. If symptoms persist, seek medical advice.
Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/ attention.
Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances: Unknown.
Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code: 3YE

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location compliance certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	Solvent naphtha (petroleum), light aliphatic	data unavailable	data unavailable
	hydrotreated paraffinic oil	5mg/m ³	data unavailable
	crystalline silica	0.1mg/m ³ (respirable dust)	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes	Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if splashes are likely.
Skin	If discomfort is felt (e.g., if pre-existing conditions exist, such as dermatitis, cuts or sensitive skin), gloves may be helpful. If you suffer from dermatitis type skin conditions, use gloves. Nitrile gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.
Respiratory	A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	Viscous grey liquid
Odour	mild solvent
pH	Not available
Vapour pressure	11.25mmHg
Viscosity	1200000cps
Boiling point	119-141°C
Volatile materials	VOC 250g/L
Freezing / melting point	no data
Solubility	Negligible
Specific gravity / density	1.2-1.3 (relative)
Flash point	10°C
Danger of explosion	no data
Auto-ignition temperature	246°C
Upper & lower flammable limits	LEL: 0.9%, UEL: 6.7%
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Acids and bases and strong oxidisers.
Substance Specific	none known
Incompatibility	
Hazardous decomposition products	Oxides of carbon.
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: if large quantities are swallowed: symptoms include nausea and vomiting.

IF ON SKIN: repeated and prolonged exposure may cause skin irritation and dermatitis due to degreasing properties of the solvent.

IF INHALED: vapours may cause dizziness and drowsiness. High concentrations may cause central nervous system depression, headaches, dizziness, tiredness and incoordination and in extreme cases loss of consciousness.

Supporting Data

Acute	Oral	Solvent Naphtha possesses low acute toxicity for mammals, with LD ₅₀ 's >5000mg/kg. However, it is possible that if Solvent naphtha is taken into the mouth, it would be aspirated into the lungs and might then cause pneumonitis. It is therefore classified 6.1E (aspiration), however the viscosity of this product is very low.
	Dermal	No evidence of acute dermal toxicity.
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >20mg/L. Data considered includes: Solvent naphtha (petroleum), light aliph. >20mg/L (estimated)
	Eye	The mixture is not considered to be an eye irritant.
	Skin	The mixture is considered to be a mild skin irritant. Prolonged or repeated skin exposure

Chronic	Sensitisation	over a long period of time can result in severe irritant dermatitis.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a mutagen. This hydrocarbon solvent is considered carcinogenic by some agencies (based on possible aromatic hydrocarbon concentration), however white spirits is not listed by IARC and not classified by EPA as carcinogenic. Some hydrocarbon solvents are considered carcinogenic – particularly those that contain aromatic compounds (benzene, ethyl benzene).
	Reproductive / Developmental	No ingredients is classed as a reproductive/developmental toxicant.
	Systemic	No ingredient present at concentrations > 1% is considered a target organ toxicant.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be toxic towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: Solvent naphtha (petroleum), light aliph. no data (see other hydrocarbons).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity
Terrestrial vertebrate	See acute toxicity
Terrestrial invertebrate	No evidence of ecotoxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1133	Proper shipping name:	ADHESIVES
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid Ecotoxic.	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017.
All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Required if > not required is handled or stored.
Tracking	This substance is required to be tracked if > not required is present.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available to Datachem LTD. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Flexible F.A.S.T Adhesive Dual Cartridge
Other names	not assigned
Product code	STP900B
HSNO approval	HSR002679 for Part A HSR002670 for Part B
Approval description	Part A: Surface Coatings and Colourants (Toxic [6.7]) Group Standard 2017 Part B: Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017
UN number	NA
DG class	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	Part B of two part adhesive for roofing systems

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

PART A:

6.1D (inhalation)
6.1E (respiratory irritation)
6.3A
6.4A
6.5A
6.5B
6.7B
6.9A

Hazard Statements

H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 - May cause an allergic skin reaction.
H341 - Suspected of causing cancer.
H372 - Causes damage to organs through prolonged or repeated exposure.

SYMBOLS

DANGER



Classes

PART B:

6.1E (oral)

6.3A

6.4A

Hazard Statements

H303 - May be harmful if swallowed

H315 - Causes skin irritation.

H320 - Causes eye irritation.

SYMBOLS

WARNING



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements for both parts

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe vapours.

P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P280 - Wear protective gloves/protective clothing.

P280 - Wear protective gloves/eye protection.

P285 - In case of inadequate ventilation wear respiratory protection.

302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P363 - Wash contaminated clothing before reuse.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention

P304+P341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

P308+P313 - IF exposed or concerned: Get medical advice/ attention.

P405 - Store locked up.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

3. Composition / Information on Ingredients

Component of Part A	CAS/ Identification	Conc (%)
Diphenylmethane-4,4'-diisocyanate	101-68-8	25-60%
Diphenylmethane Diisocyanate (MDI) Mixed Isomers	26447-40-5	10-30%
Isocyanates, reaction product of polyol with methylenediphenyl diisocyanate	39420-98-9	10-30%
Benzene, 1,1'-methylenebis[isocyanato-, homopolymer	39310-05-9	10-30%
Diphenylmethane-2,4'-diisocyanate	5873-54-1	10-30%
Diphenylmethanediisocyanate, isomers and homologues	9016-87-9	7-13%
4,4'-Methylenediphenyl-4,4'-diisocyanate, oligomers	25686-28-6	3-7%

Component of Part B	CAS/ Identification	Conc (%)
Dipropylene glycol	110-98-5	5-10%
Tris (1-chloro-2-propyl) phosphate	13674-84-5	10-20%
Triethylene diamine	280-57-9	0.1-1%
Ethanol, 2-(dimethylamino)-	108-01-0	0.1-1%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhaled IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: There are no specific risks for fire/explosion for this chemical. It is not classed as flammable. Excessive pressure or temperatures may cause explosive rupture of containers.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam, fog sprays, water jets.

Unsuitable extinguishing substances: If using water use very large quantities of cold water. The reaction between water and hot isocyanates may be vigorous.

Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide, oxides of nitrogen and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code: NA

6. Accidental Release Measures

Containment If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.

Emergency procedures If a significant spill occurs:
Stop leak if safe/necessary; Isolate area. Collect spill – see below; Transfer to container for disposal. Dispose of according to guidelines below (Section 13).

Clean-up method Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Disposal Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.

Precautions No special protective clothing is normally necessary.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Store in original container only protected from direct sunlight in a dry, cool well ventilated area. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Do not store above 25°C. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. Wash hands after use. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols. Do not eat, drink or smoke in work area. Remove contaminated clothing or protective equipment before entering eating area.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.




NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	Dipropylene glycol	data unavailable	data unavailable
	Tris (1-chloro-2-propyl) phosphate	data unavailable	data unavailable
	triethylene diamine	data unavailable	data unavailable
	Ethanol, 2-(dimethylamino)-	2ppm, 7.4mg/m ³	6ppm, 22mg/m ³
	Diphenylmethane-4,4-diisocyanate	0.02mg/m ³ (for isocyanates)	0.07mg/m ³ (for Isocyanates)
	Diphenylmethane Diisocyanate (MDI)	0.02mg/m ³ (for isocyanates)	0.07mg/m ³ (for Isocyanates)
	Mixed Isomers		

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes		Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.
Skin		Avoid any skin contact. Wear overalls, rubber boots and impervious gloves. Neoprene, Nitrile, Latex or butyl rubber gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking.
Respiratory		A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a 'ENTER RESPIRATOR TYPE'. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary. It is important to note that odour cannot be used to indicate whether a respirator should be used or cartridges be replaced (the odour threshold for isocyanate is lower than the level at which toxic effects could occur).

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	light yellow to amber liquid
Odour	faint aromatic
pH	no data
Vapour pressure	0.00001mmHg
Viscosity	270mPa.s
Boiling point	200°C (@5mmHg)
Volatile materials	no data
Freezing / melting point	<-20°C
Solubility	reacts with water
Specific gravity / density	1.16g/cm ³
Flash point	200°C
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable at room temperatures and in dry conditions. Substance reacts with water to produce carbon dioxide gas in an exothermic reaction (i.e. releases heat).
Conditions to be avoided	Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	May react with alcohols, ammonia, amines, aqueous acids and alkalis (exothermic). With water/moisture: carbon dioxide is produced; pressure may build up inside closed containers (danger of bursting). High humidity may harden contents of container or cause valve blockage.
Substance Specific Incompatibility	As above.
Hazardous decomposition products	Carbon monoxide, traces of hydrogen cyanide, oxides of nitrogen.
Hazardous reactions	This substance reacts with water. The reaction may become progressively vigorous and can be violent at high temperatures depending on the solvents present and how well it is mixed with water.

11. Toxicological Information

Summary

Part A:

IF SWALLOWED: Low oral toxicity, but will irritate mouth, throat and stomach.

IF IN EYES: causes serious eye irritation resulting in pain, watering, redness.

IF ON SKIN: causes skin irritation. May cause an allergic skin reaction, possible effects included dermatitis (skin swelling, reddening and blistering), Effects may re-occur upon exposure to extremely low levels of isocyanate and related chemicals. Effects may be delayed after initial exposure.

IF INHALED: may be toxic if inhaled. May irritate respiratory tract. May cause an allergic response which can include hyperactive airway, bronchitis (wheezing, gasping, unconsciousness), neurological effects (e.g., headache, euphoria, depression). Effects may re-occur upon exposure to extremely low levels of isocyanate and related chemicals (e.g., exposure to vehicle exhaust). High vapour concentration may cause central nervous system depression causing drowsiness and dizziness.

CHRONIC TOXICITY: Diphenylmethane-4,4-diisocyanate is suspected of causing cancer if inhaled (EU ECHA). Sensitisation is considered a long term (chronic) effect. Chronic overexposure to isocyanates may cause lung damage including decrease in lung function, which may be permanent.

PART B:

IF IN EYES: may be irritating to eyes.

IF ON SKIN: may cause mild skin irritation.

Supporting Data for Part A

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Diphenylmethane-4,4'-diisocyanate 2200 mg/kg (mouse), Diphenylmethane Diisocyanate (MDI) Mixed Isomers >5000mg/kg (rat), Isocyanates, Diphenylmethanediisocyanate, isomers and homologues >5000mg/kg (rat), 4,4'-Methylenediphenyl-4,4'-diisocyanate, oligomers >2000mg/kg (rat).
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is >5000 mg/kg. Data considered includes: Diphenylmethane-4,4'-diisocyanate 9400mg/kg (rabbit)
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is between 1 and 5mg/L. Data considered includes: Diphenylmethane-4,4'-diisocyanate 0.369 mg/l (rat, inhalation), Diphenylmethane Diisocyanate (MDI) Mixed Isomers 0.49mg/L (rat), isomers and homologues 0.49mg/L (rat), 4,4'-Methylenediphenyl-4,4'-diisocyanate, oligomers 0.49mg/L rat, (air).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	The mixture is considered to be a contact and respiratory sensitizer. Isocyanates are considered sensitizers if inhaled and by dermal contact.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	The mixture is considered to be a suspected carcinogen. IARC have evaluated diphenylmethane-4,4'-diisocyanate as not classifiable as to its carcinogenicity to humans (Group 3). However in the EU diphenylmethane-4,4'-diisocyanate is classed as a suspected carcinogen.
	Reproductive / Developmental Systemic	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation. The mixture is considered to be a known or presumed target organ toxicant, because MDI analogues present in greater than 1% is known or presumed to be a target organ toxicant. This product may cause respiratory irritation if inhaled.
	Aggravation of existing conditions	Individuals with impaired lung function or existing allergies (including dermatitis) should not work with this chemical – they are at increased risk of becoming sensitised with further potential health effects.

Supporting Data for Part B

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is between 2000 and 5000 mg/kg. Data considered includes: Tris (1-chloro-2-propyl) phosphate 1017mg/kg (female rat), triethylene diamine 1700 mg/kg (rat), Ethanol, 2-(dimethylamino)- 1830mg/kg (rat).
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is >5000 mg/kg. Data considered includes: Tris (1-chloro-2-propyl) phosphate >5000, triethylene diamine 3200 mg/kg, Ethanol, 2-(dimethylamino)- 1220mg/kg (rabbit).
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >5mg/l. Data considered includes: Tris (1-chloro-2-propyl) phosphate >4.6mg/lL (4 hours, rat,aerosol),Ethanol, 2-(dimethylamino)- 1641ppm (rat, vapour) = 5.98mg/L (rat, vapour).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental Systemic	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Aggravation of existing conditions	No ingredient present at concentrations > 1% is considered a target organ toxicant. None known.

12. Ecological Data

Summary

This mixture is not considered ecotoxic

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is > 100 mg/L. Data considered includes: Tris (1-chloro-2-propyl) phosphate 54.2mg/L (48hr, Fish), 30mg/L (96hr, fresh water fish), 63mg/L (48hr, Daphnia magna), 41mg/L (96hr, Selenastrum capricornutum (algae)), triethylene diamine EC ₅₀ =92 mg/L - Daphnia, Ethanol, 2-(dimethylamino)- 81mg/L (96h, Pimephales promelas (Fish, fresh water)), 98.37mg/L (48h, Daphnia magna Straus), 35mg/L (72h, Scenedesmus sp. (Algae)). The substance will react with water to form carbon dioxide and a non hazardous polymer.
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	This mixture is not considered toxic towards terrestrial vertebrates.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	NA

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017.
All Ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 10000L is stored.
Location compliance certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Part A: Approval HSR002679, Surface Coatings and Colourants (Toxic [6.7]) Group Standard 2017, Part B: Approval HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Viking Surface sealer Part A
Other names	Viking Primer Sealer Part A
Product code	VPS100A
HSNO approval	HSR002670
Approval description	Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017
UN number	NA
DG class	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	part A - epoxy sealer

Company Details

Company	Viking Roofs spec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofs spec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

6.3A
6.4A
6.5B
9.1C

Hazard Statements

H315 - Causes skin irritation.
H320 - Causes eye irritation.
H317 - May cause an allergic skin reaction.
H412 - Harmful to aquatic life with long lasting effects.

SYMBOLS

WARNING



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P103 - Read label before use.
P261 - Avoid breathing vapours.
P264 - Wash hands thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P362 - Take off contaminated clothing and wash before re-use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Polyamide resin	proprietary	10-30%
Pigment	trade secret	10-30%
Calcium carbonate	1317-65-3	<10%
Ingredients not contributing to HSNO classes, including water	mixture	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed DO NOT INDUCE vomiting. Contact the National Poisons Centre or a Doctor if experiencing symptoms. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhaled Generally, inhalation of fumes is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: There are no specific risks for fire/explosion for this chemical. It is not classed as flammable.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

Hazchem code: NA

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep in a cool, dry place. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.



NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	calcium carbonate	10mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes		Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.
Skin		Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Neoprene or rubber gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.

Respiratory

A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a respiratory with a particulate filter (dust/mist). If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	white/coloured liquid
Odour	ammonical odour
pH	8.5-9.5
Vapour pressure	no data
Viscosity	no data
Boiling point	100°C
Volatile materials	58%
Freezing / melting point	no data
Solubility	soluble in water
Specific gravity / density	1.24g/cm ³
Flash point	no data
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible groups	none known
Substance Specific	none known
Incompatibility	
Hazardous decomposition products	oxides of carbon and nitrogen, nitric acid, ammonia.
Hazardous reactions	none known

11. Toxicological Information

Summary

IF IN EYES: may cause irritation of the eyes.

IF ON SKIN: causes skin irritation or rash.

IF INHALED: vapours may cause respiratory irritation.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: polyamide resin >2000mg/kg bw.
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is >5000 mg/kg. Data considered includes: Polyamide resin>2000mg/kg bw.
	Inhaled	No evidence of inhalation toxicity.
	Eye	The mixture is considered to be irritating to the eye.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	The mixture is considered to be a contact sensitizer, because at least one of the ingredients present in greater than 0.1% is known to be a contact sensitizer (polyamide resin).
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	No evidence of reproductive/developmental toxicity.
	Systemic	No ingredient present at concentrations > 1% is considered a target organ toxicant.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is considered harmful in the aquatic environment with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 10 mg/L and 100 mg/L and at least one of the components is either bioaccumulative or persistent in the aquatic environment. Data considered includes: polyamide resin 7.07mg/L (96h, Danio rerio (fish)), 5.18mg/L (48hr, Daphnia magna).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	See acute toxicity.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	NA

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017.

All Ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L is stored in any one location.
Location compliance certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
August 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Viking Surface sealer Part B
Other names	Viking Primer Sealer Part A
Product code	VPS100B
HSNO approval	HSR002670
Approval description	Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017
UN number	3082
DG class	9
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID (contains bisphenol A)
Packaging group	III
Hazchem code	3Z
Uses	part B - epoxy sealer

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

Hazard Statements

6.3B	H316 - Causes mild skin irritation.
6.4A	H320 - Causes eye irritation.
6.5B	H317 - May cause an allergic skin reaction.
6.9B	H371 - May cause damage to organs through prolonged or repeated exposure.
9.1B	H411 - Toxic to aquatic life with long lasting effects.

SYMBOLS

WARNING



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

- P102 - Keep out of reach of children.
- P103 - Read label before use.
- P260 - Do not breathe vapours.
- P264 - Wash hands thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P391 - Collect spillage.
P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Bisphenol A resin	25036-25-3	10-30%
calcium carbonate	471-34-1	<10%
ingredients not contributing to HSNO classes, including water	mixture	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.
Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhaled Generally, inhalation of vapours is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: There are no specific risks for fire/explosion for this chemical. It is non-flammable.
Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances: Unknown.
Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment: No special measures are required.
Hazchem code: 3Z

6. Accidental Release Measures

Containment If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures In the event of spillage alert the fire brigade to location and give brief description of

	hazard.
Clean-up method	Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Disposal	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Precautions	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.




NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	calcium carbonate	10mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes 	Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.
Skin 	Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Nitrile gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.
Respiratory 	A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a respirator with an organic vapour cartridge. . If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable
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August 2018

9. Physical & Chemical Properties

Appearance	white liquid
Odour	no odour
pH	8.0-8.5
Vapour pressure	no data
Viscosity	no data
Boiling point	100°C
Volatile materials	58%
Freezing / melting point	no data
Solubility	soluble in water
Specific gravity / density	1.25g/cm ³
Flash point	no data
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible groups	Strong oxidisers, strong acids and bases, aluminium.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon and nitrogen, smoke.
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: may cause irritation to the mouth, throat and gastrointestinal system.

IF IN EYES: may cause serious eye irritation.

IF ON SKIN: causes skin irritation, may cause an allergic skin reaction.

IF INHALED: may cause respiratory irritation.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Bisphenol A diglycidyl ether - bisphenol A copolymer 15600mg/kg (mouse), 10.7mL/kg (rat), calcium carbonate 6450mg/kg (rat).
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is >5000 mg/kg. Data considered includes: Bisphenol A diglycidyl ether - bisphenol A copolymer >20mL/kg (rabbit).
	Inhaled	No evidence of acute inhalation toxicity.
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	The mixture is considered to be a contact sensitizer, because at least one of the ingredients present in greater than 0.1% is known to be a contact sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental Systemic	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Aggravation of existing conditions	The mixture is considered to be a suspected target organ toxicant, because bisphenol A resin present in greater than 1% is suspected to be a target organ toxicant (EPA). None known.

12. Ecological Data

Summary

This mixture is considered toxic towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the estimated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: Bisphenol A ether resin 1.2 mg/L (96h, <i>Oncorhynchus mykiss</i>), 2.7 mg/L (48h, <i>Daphnia magna</i>).
Bioaccumulation	No data for the mixture.
Degradability	No data for the mixture.
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	No evidence of toxicity towards terrestrial vertebrates.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	3082	Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID (contains bisphenol A)
Class(es)	9	Packing group:	III
Precautions:	Marine Pollutant	Hazchem code:	3Z

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017. All Ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including sub-manufactured for own use or have been supplied.
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L is stored.
Location compliance certificate	Not required.
Flammable zone	Not required.

Fire extinguisher

Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
REVIEW DATE	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: **+64 9 940 30 80**.



1. Identification of Substance & Company

Product

Product name	Toluene Cleaning Agent
Other names	Toluene
Product code	MCD030
HSNO approval	HSR001227
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1294
DG class	3
Proper Shipping Name	TOLUENE
Packaging group	II
Hazchem code	3YE
Uses	Solvent

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR001227, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

Hazard Statements

3.1B	H225 - Highly flammable liquid and vapour.
6.1D (oral)	H302 - Harmful if swallowed.
6.1D (inhalation)	H332 - Harmful if inhaled.
6.3A	H315 - Causes skin irritation.
6.4A	H320 - Causes eye irritation.
6.8B	H361 - Suspected of damaging fertility or the unborn child.
6.9B	H371 - May cause damage to organs through prolonged or repeated exposure.
9.1D	H402 - Harmful to aquatic life.
9.3C	H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

- P101 - If medical advice is needed, have product container or label at hand.
- P102 - Keep out of reach of children.
- P103 - Read label before use.
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from ignition sources. No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground/bond container and receiving equipment.
 P241 - Use explosion-proof electrical equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P260 - Do not breathe vapours.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/eye/face protection.

P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
 P330 - Rinse mouth.
 P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P332+P313 - If skin irritation occurs: Get medical advice/ attention.
 P362 - Take off contaminated clothing and wash before re-use.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Toluene	108-88-3	100%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.
Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.
Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances: Unknown.
Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water.

Protective equipment: May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
 Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code: 3YE

6. Accidental Release Measures

Containment If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Std	Ingredient	WES-TWA*	WES-STEL
	toluene	50ppm, 188 mg/m ³ (skin)	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin



Protective gloves are recommended. Nitrile, teflon or PVA gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. . If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	clear colourless liquid
Odour	characteristic odour
pH	no data
Vapour pressure	3.5kPa @20°C
Viscosity	no data
Boiling point	110°C
Volatile materials	100%
Freezing / melting point	no data
Solubility	0.515kg/m ³ in water
Specific gravity / density	0.872g/ml
Flash point	4°C (Toluene)
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	LEL: 1.2 Vol%, UEL: 8.0 Vol%
Corrosiveness	not corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Oxidisers, strong acids, bases.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death.

IF IN EYES: may cause eye irritation.

IF ON SKIN: may cause skin irritation. Repeated or prolonged contact may cause drying out of the skin resulting in non-allergic dermatitis. This product can be absorbed through the skin.

INHALED: high concentrations of vapours may cause dizziness and drowsiness.

CHRONIC TOXICITY: Toluene vapours may cause reversible damage to kidneys and liver. Prolonged exposure can cause nerve damage (CNS). Toluene may cause damage to foetus possible fetotoxicity, paternal effects. Toluene may cause ototoxicity.

Supporting Data

Acute	Oral	LD ₅₀ (oral, rat) for toluene 636 mg/kg (rat).
	Dermal	No evidence of dermal toxicity.
	Inhaled	LC ₅₀ (inhalation, rat) toluene 12.5 - 28.8 mg/l (vapour, rat).
	Eye	Toluene is considered an eye irritant.
	Skin	Toluene is a skin irritant.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	Toluene is suspected to be a reproductive or developmental toxicant.
	Systemic	Toluene is considered a suspected systemic toxicant by inhalation.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be harmful towards aquatic organisms and terrestrial vertebrates.

Supporting Data

Aquatic	EC ₅₀ 's for toluene 5.8 mg/l (96hr, Oncorhynchus mykiss), 11.5 mg/l (48hr, Daphnia magna), 12.5mg/L (72hr, Algal).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	The mixture is considered harmful to terrestrial vertebrates. See acute toxicity above.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1294	Proper shipping name:	TOLUENE
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR001227, Surface coatings and Colourants (Flammable) Group Standard 2017.
All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR001227, Surface coatings and Colourants (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring

using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Butylclad Adhesive
Other names	Not assigned
Product code	SBA000
HSNO approval	HSR002662
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1133
DG class	3
Proper Shipping Name	ADHESIVES
Packaging group	II
Hazchem code	3YE
Uses	Butyl roofing adhesives (Red) NZ

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

Hazard Statements

3.1B	H225 - Highly flammable liquid and vapour.
6.1D (oral)	H302 - Harmful if swallowed.
6.1E (aspiration)	H304 - May be fatal if swallowed and enters airways.
6.3A	H315 - Causes skin irritation.
6.4A	H319 - Causes serious eye irritation.
6.8B	H361 - Suspected of damaging fertility or the unborn child.
6.9B (narcotic)	H336 - May cause drowsiness or dizziness.
6.9B	H371 - May cause damage to organs through prolonged or repeated exposure.
9.1B	H411 - Toxic to aquatic life with long lasting effects.
9.3C	H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/eye/face protection.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P331 - Do NOT induce vomiting.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before re-use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
toluene	108-88-3	10-30%
acetone	67-64-1	10-30%
hexane	110-54-3	10-30%
additives	proprietary	1-10%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is recommended. Accessible eyewash is recommended

Exposure

Swallowed IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.
Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.
Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3YE

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location compliance certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Std	Ingredient	WES-TWA*	WES-STEL
	toluene	50ppm, 188 mg/m ³ (skin)	data unavailable
	acetone	500ppm, 1185mg/m ³	1000ppm, 2375 mg/m ³
	hexane	20ppm, 72mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin



Protective gloves are recommended. Nitrile, teflon or PVA gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. . If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	Liquid
Odour	no data
pH	no data
Vapour pressure	no data
Viscosity	no data
Boiling point	110-111°C (Toluene)
Volatile materials	no data
Freezing / melting point	no data
Solubility	no data
Specific gravity / density	no data
Flash point	4°C (Toluene)
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	no data

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Oxidisers, strong acids, bases.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death.

IF IN EYES: may cause eye irritation.

IF ON SKIN: may cause skin irritation. Repeated or prolonged contact may cause drying out of the skin resulting in non-allergic dermatitis. This product can be absorbed through the skin.

INHALED: high concentrations of vapours may cause dizziness and drowsiness.

CHRONIC TOXICITY: Toluene vapours may cause reversible damage to kidneys and liver. Prolonged exposure can cause nerve damage (CNS). Toluene may cause damage to foetus possible fetotoxicity, paternal effects. Toluene may cause ototoxicity. Hexane is known to affect the peripheral nervous system.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is 300 and 2000 mg/kg. Data considered includes: toluene 636 mg/kg (rat), acetone 3000 mg/kg (mouse), hexane 25000mg/kg (rat).
	Dermal	No evidence of acute dermal toxicity.
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is 20mg/L. Data considered includes: toluene 12.5 - 28.8 mg/l (vapour, rat), hexane 48000ppm/4H (rat).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients (toluene, acetone, hexane) present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients (Toluene, acetone, hexane) present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant, because at least one of the ingredients (toluene) present in greater than 0.1% is suspected to be a reproductive or developmental toxicant.
	Systemic	The mixture is considered to be a suspected target organ toxicant (toluene, hexane), because at least one of the ingredients present in greater than 1% is suspected to be a target organ toxicant. This mixture may cause dizziness and drowsiness.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be toxic towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: toluene 5.8 mg/l (96hr, Oncorhynchus mykiss), 11.5 mg/l (48hr, Daphnia magna), 12.5mg/L (72hr, Algal), hexane 2.50mg/L (96hr, Fathead minnow), 3.9mg/L (48hr, Daphnia magna).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	The mixture is considered harmful to terrestrial vertebrates. See acute toxicity above.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions

There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.

Disposal method

Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.

Contaminated packaging

Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1133	Proper shipping name:	ADHESIVES
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid, Marine pollutant.	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017.

All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)

IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Dec-K-ing PVC Adhesive
Other names	Exterior Vinyl Contact Adhesive
Product code	SDF005
HSNO approval	HSR002662
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1133
DG class	3
Proper Shipping Name	ADHESIVES
Packaging group	II
Hazchem code	3YE
Uses	sealant/adhesive

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand 0800 729 799 0800 729 788 www.vikingroofspec.co.nz	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone		
Fax		
Website		

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

3.1B
6.1E (oral)
6.3B
6.4A
6.8B
6.8C
9.1C

Hazard Statements

H225 - Highly flammable liquid and vapour.
H303 - May be harmful if swallowed
H316 - Causes mild skin irritation.
H320 - Causes eye irritation.
H361 - Suspected of damaging fertility or the unborn child.
H362 - May cause harm to breast-fed children.
H412 - Harmful to aquatic life with long lasting effects.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P260 - Do not breathe vapours.
 P263 - Avoid contact during pregnancy/while nursing.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection*.
 P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
 P332+P313 - If skin irritation occurs: Get medical advice/ attention.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Ethyl acetate	141-78-6	30-50%
Butanone	78-93-3	30-50%
Alkanes, C14-17, chloro	85535-85-9	0.1-1%
Toluene	108-88-3	0.1-1%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Call a POISON CENTRE or doctor/physician if you feel unwell.
Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact Flush immediately with large amounts of water. Remove all contaminated clothing. If skin irritation occurs: Get medical advice/ attention.
Inhaled Generally, inhalation of fumes is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances: Unknown.
Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment: Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code: 3YE

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Std	Ingredient	WES-TWA*	WES-STEL
	Ethyl acetate	200ppm, 720mg/m ³	data unavailable
	Butanone	150ppm, 445mg/m ³	300ppm, 890mg/m ³
	Alkanes, C14-17, chloro	data unavailable	data unavailable
	Toluene	50ppm, 188 mg/m ³ (skin)	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Avoid wearing contact lenses.

Skin



Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Neoprene and PVA gloves are recommended. Replace gloves frequently. Gloves should be checked for tears or holes before use.

Respiratory

A respirator when airborne concentrations approach the WES (section 8). Use a Organic vapour cartridge with a particulate filter. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	liquid (various colours)
Odour	characteristic
pH	no data
Vapour pressure	75mmHg
Viscosity	1600mPa.s (20°C) (dynamic), >7mm ² /s (40°C) (kinetic)
Boiling point	no data
Volatile materials	no data
Freezing / melting point	no data
Solubility	no data
Specific gravity / density	0.9g/cm ³ @20°C
Flash point	-4°C (closed cup)
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	LEL: 1.8%, UEL: 11.5%
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable.
Conditions to be avoided	Keep away from heat. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Strong oxidizers. Acids.
Substance Specific Incompatibility	Avoid heat and sources of ignition.
Hazardous decomposition products	A mixture including carbon monoxide, carbon dioxide, smoke and other toxic fumes may be evolved when this material undergoes combustion or thermal or oxidative degradation
Hazardous reactions	Reacts with alcohols, amines, aqueous acids and alkalis

11. Toxicological Information

Summary

IF SWALLOWED: may cause gastrointestinal irritation.

IF IN EYES: may cause eye irritation.

IF ON SKIN: may dry out the skin.

IF INHALED: Vapours may be harmful and irritating to the respiratory tract. Vapours may cause drowsiness and dizziness.

CHRONIC TOXICITY: vapours may cause effects to the CNS, liver, thyroid and adrenal glands. May affect infants through breast milk. May affect fertility and development of the foetus.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: ethyl acetate 4100mg/kg (mouse), Butanone 2737 mg/kg (rat), toluene 636 mg/kg (rat).
	Dermal	No evidence of dermal toxicity.
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >20mg/kg. Data considered includes: toluene 12.5 - 28.8 mg/l (vapour, rat).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.

Reproductive / Developmental	The mixture is considered to be a reproductive or developmental toxicant, because at least one of the ingredients present in greater than 0.1% is known or suspected to have an effect on or via lactation. Toluene may affect fertility and foetal development. Alkanes, C14-17, chloro may affect infants via lactation.
Systemic	The mixture is considered to be a suspected target organ toxicant, because ethyl acetate present in greater than 1% are suspected to be a target organ toxicant. Animal studies show pathological changes of the cerebral cortex (swelling, hyperchromemia), liver (decreased glycogen and lipid level), thyroid gland (follicle degeneration, infiltration) and adrenal gland (hypertrophy of the cortex).
Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be harmful towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 10 mg/L and 100 mg/L Data considered includes: alkane, C14-17, chloro classed by EPA as 9.1A, toluene 5.8 mg/l (96hr, Oncorhynchus mykiss), 11.5 mg/l (48hr, Daphnia magna), 12.5mg/L (72hr, Algal).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	This mixture is not considered ecotoxic towards terrestrial vertebrates.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1133	Proper shipping name:	ADHESIVES
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017.
All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number

WES

Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data

Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).

Controls

EPA notices, www.epa.govt.nz, Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz

WES

The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.

Other References:

Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date

July 2018

Reason for review

Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Epiclad Adhesive
Other names	SureSeal 90-8-30A Bonding Adhesive
Product code	SEA200
HSNO approval	HSR002662
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1133
DG class	3
Proper Shipping Name	ADHESIVES
Packaging group	II
Hazchem code	3YE
Uses	Bonding Adhesive for EPDM Single-Ply Roofing membrane

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

3.1B
 6.1D (oral)
 6.1D (inhalation)
 6.1E (respiratory irritation)
 6.3A
 6.4A
 6.8B
 6.9B
 6.9B (narcotic)
 9.1B
 9.3C

Hazard Statements

H225 - Highly flammable liquid and vapour.
 H302 - Harmful if swallowed.
 H332 - Harmful if inhaled.
 H335 - May cause respiratory irritation.
 H315 - Causes skin irritation.
 H320 - Causes eye irritation.
 H361 - Suspected of damaging fertility or the unborn child.
 H371 - May cause damage to organs through prolonged or repeated exposure.
 H336 - May cause drowsiness or dizziness.
 H411 - Toxic to aquatic life with long lasting effects.
 H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
 P102 - Keep out of reach of children.
 P103 - Read label before use.
 P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from ignition sources. No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground/bond container and receiving equipment.
 P241 - Use explosion-proof electrical equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P260 - Do not breathe vapours.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/eye/face protection.
 P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
 P330 - Rinse mouth.
 P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P332+P313 - If skin irritation occurs: Get medical advice/ attention.
 P362 - Take off contaminated clothing and wash before re-use.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P391 - Collect spillage.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Polychloroprene	proprietary	10-30%
Phenolic resin	proprietary	1-5%
Magnesium oxide	1309-48-4	0.5-1.5%
Toluene	108-88-3	30-60%
Solvent naphtha (petroleum), light aliphatic	64742-89-8	15-30%
Acetone	67-64-1	5-10%
Xylene	1330-20-7	1-5%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities

 Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed

 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.

Eye contact

 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact

 IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.

Inhaled

 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3YE

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Std	Ingredient	WES-TWA*	WES-STEL
	Magnesium oxide	10mg/m ³ (fume)	data unavailable
	Toluene	50ppm, 188 mg/m ³ (skin)	data unavailable
	Solvent naphtha (petroleum), light aliphatic	data unavailable	data unavailable
	Acetone	500ppm, 1185mg/m ³	1000ppm, 2375 mg/m ³
	Xylene	50ppm, 217mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far

below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe airborne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin



Protective gloves are recommended. Nitrile, teflon or PVA gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	yellow liquid
Odour	hydrocarbon
pH	no d
Vapour pressure	6.7mmHg (@204°C)
Viscosity	2500cps
Boiling point	56-139°C
Volatile materials	79-83%
Freezing / melting point	-48°C
Solubility	negligible in water
Specific gravity / density	0.84
Flash point	10°C
Danger of explosion	no data
Auto-ignition temperature	223°C
Upper & lower flammable limits	LEL: 1.1%, UEL: 12.8%
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Oxidisers, strong acids, bases.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death.

IF IN EYES: may cause eye irritation.

IF ON SKIN: may cause skin irritation. Repeated or prolonged contact may cause drying out of the skin resulting in non-allergic dermatitis. This product can be absorbed through the skin.

INHALED: high concentrations of vapours may cause dizziness and drowsiness.

CHRONIC TOXICITY: Toluene and Xylene vapours may cause reversible damage to kidneys and liver. Prolonged exposure can cause nerve damage (CNS). Toluene and Xylene may cause damage to foetus possible fetotoxicity, paternal effects. Toluene may cause ototoxicity.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >between 300 and 2000 mg/kg. Data considered includes: toluene 636 mg/kg (rat), Solvent naphtha (petroleum), light aliphatic >5000mgkg, Acetone 3000 mg/kg (mouse), Xylene 1590 mg/kg (mouse).
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is >5000 mg/kg. Data considered includes: Xylene >1700mg/kg, m-xylene: 3228 mg/kg/day (rabbits).
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >20mg/L. Data considered includes: toluene 12.5 - 28.8 mg/l (vapour, rat), Xylene 27.6 mg/L (rat, vapour).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients (toluene, xylene) present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients (Toluene, xylene, solvent naphtha) present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant, because at least one of the ingredients (toluene, xylene) present in greater than 0.1% is suspected to be a reproductive or developmental toxicant.
	Systemic	The mixture is considered to be a suspected target organ toxicant (toluene, xylene), because at least one of the ingredients present in greater than 1% is suspected to be a target organ toxicant. This mixture may cause dizziness and drowsiness.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be toxic towards aquatic organisms with long lasting effects and terrestrial vertebrates.

Supporting Data

This mixture may be toxic towards aquatic organisms with long lasting effects and terrestrial vertebrates.	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: toluene 5.8 mg/l (96hr, Oncorhynchus mykiss), 11.5 mg/l (48hr, Daphnia magna), 12.5mg/L (72hr, Algal) , Xylene 8.5mg/l (48hr, Palaemonetes pugio (Crustacea)), 3.3 mg/l (96hr, Oncorhynchus mykiss), 10mg/l (72hr, Skeletonema costatum)
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	The mixture is considered harmful to terrestrial vertebrates. See acute toxicity above.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1133	Proper shipping name:	ADHESIVES
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid Marine pollutant	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: hsr002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2017.

All ingredients appear in the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002662, Surface Coatings and Colourants (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.



1. Identification of Substance & Company

Product

Product name	Lap Seam Primer
Other names	Weatherbond Multi-purpose primer
Product codes	SEC034
HSNO approval	HSR002662
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1133
DG class	3
Proper Shipping Name	ADHESIVES
Packaging group	II
Hazchem code	3YE
Uses	Cleaning and Priming EPDM Single-Ply Roofing Membrane

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

3.1B
 6.1D (oral)
 6.1D (inhalation)
 6.1E (respiratory irritation)
 6.3A
 6.4A
 6.8B
 6.9B
 9.1D
 9.3C

Hazard Statements

H225 - Highly flammable liquid and vapour.
 H302 - Harmful if swallowed.
 H332 - Harmful if inhaled.
 H335 - May cause respiratory irritation.
 H315 - Causes skin irritation.
 H320 - Causes eye irritation.
 H361 - Suspected of damaging fertility or the unborn child.
 H371 - May cause damage to organs through prolonged or repeated exposure.
 H402 - Harmful to aquatic life.
 H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
 P102 - Keep out of reach of children.
 P103 - Read label before use.
 P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P210 - Keep away from ignition sources. No smoking.

P233 - Keep container tightly closed.
 P240 - Ground/bond container and receiving equipment.
 P241 - Use explosion-proof electrical equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P260 - Do not breathe vapours.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/eye/face protection.

P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
 P330 - Rinse mouth.
 P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P332+P313 - If skin irritation occurs: Get medical advice/ attention.
 P362 - Take off contaminated clothing and wash before re-use.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Toluene	108-88-3	60-100%
Heptane	142-82-5	5-10%
Phenolic resin	proprietary	0.1-1%
Silicon adsorbent mixture	proprietary	0.1-1%
Cyclohexanemethanamine, 1,3,3-trimethyl-N-(2-methylpropylidene)-5-[(2-methylpropylidene)amino]-	54914-37-3	0.1-1%
Dibutyltin dilaurate	77-58-7	<0.1%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.
Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.
Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3YE

6. Accidental Release Measures

Containment	If greater than 1000L <i>is stored</i> , secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	toluene	50ppm, 188 mg/m ³ (skin)	data unavailable
	heptane	400ppm, 1640mg/m ³	500ppm, 2050mg/m ³

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin



Protective gloves are recommended. Nitrile, teflon or PVA gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. . If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	dark liquid
Odour	hydrocarbon odour
pH	no data
Vapour pressure	24.9mmHg
Viscosity	<200cps
Boiling point	no data
Volatile materials	727g/L
Freezing / melting point	no data
Solubility	negligible
Specific gravity / density	no data
Flash point	-7.2°C
Danger of explosion	no data
Auto-ignition temperature	230°C
Upper & lower flammable limits	LEL: 1%, UEL: 7%
Corrosiveness	not corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Oxidisers, strong acids, bases.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death.

IF IN EYES: may cause eye irritation.

IF ON SKIN: may cause skin irritation. Repeated or prolonged contact may cause drying out of the skin resulting in non-allergic dermatitis. This product can be absorbed through the skin.

INHALED: high concentrations of vapours may cause dizziness and drowsiness.

CHRONIC TOXICITY: Toluene vapours may cause reversible damage to kidneys and liver. Prolonged exposure can cause nerve damage (CNS). Toluene may cause damage to foetus possible fetotoxicity, paternal effects. Toluene may cause ototoxicity.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is between 300 and 2000 mg/kg. Data considered includes: toluene 636 mg/kg (rat), heptane aspiration hazard, Dibutyltin dilaurate 45 mg/kg.
	Dermal	No evidence of dermal toxicity.
	Inhaled	Using LC ₅₀ 's for ingredients, the calculated LC ₅₀ (inhalation, rat) for the mixture is >20mg/L. Data considered includes: toluene 12.5 - 28.8 mg/l (vapour, rat).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients (toluene, heptane) present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients (Toluene, heptane) present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant, because at least one of the ingredients (toluene) present in greater than 0.1% is suspected to be a reproductive or developmental toxicant.
	Systemic	The mixture is considered to be a suspected target organ toxicant (toluene, heptane), because at least one of the ingredients present in greater than 1% is suspected to be a target organ toxicant. This mixture may cause dizziness and drowsiness.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be harmful towards aquatic organisms and terrestrial vertebrates.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 and 100 mg/L. Data considered includes: toluene 5.8 mg/l (96hr, Oncorhynchus mykiss), 11.5 mg/l (48hr, Daphnia magna), 12.5mg/L (72hr, Algal), heptane 1.5 mg/l 948hr, Daphnia magna), Dibutyltin dilaurate Fish 2 mg/L, Crust: 0.66 mg/L.
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	The mixture is considered harmful to terrestrial vertebrates. See acute toxicity above.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1133	Proper shipping name:	ADHESIVES
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017. All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL/UEL	Lower Explosive Limit/ Upper Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
NZIoC	New Zealand Inventory of Chemicals
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
July 2018	Not applicable – new SDS

Disclaimer

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1. Identification of Substance & Company

Product

Product name	Sealant Rubber Black
Other names	SureSeal Lap Sealant
Product code	SES012A
HSNO approval	HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2017
UN number	1133
DG class	3
Proper Shipping Name	ADHESIVES
Packaging group	II
Hazchem code	3YE
Uses	Sealant for EPDM Single-Ply Roofing Membrane

Company Details

Company	Viking Roofspec	
Physical Address	80 Alexander Crescent Otara Auckland New Zealand	PO Box 14 451 Panmure Auckland 1741 New Zealand
Telephone	0800 729 799	
Fax	0800 729 788	
Website	www.vikingroofspec.co.nz	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

3.1B
6.1E (aspiration)
6.3A
6.4A
6.9B (narcotic)
9.1B

Hazard Statements

H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

SYMBOLS

DANGER



Other Classifications

This substance does contain silica (quartz) which is classed as a carcinogen (6.7A) if in an inhalable form (e.g. fine dust). This substance is a paste and the silica is bound by the polymer portion of the sealant. The only way this component would be released is by incineration. This substance is not considered carcinogenic.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P261 - Avoid breathing vapours.
 P264 - Wash hands thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/eye/face protection.
 P301+P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
 P331 - Do NOT induce vomiting.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P332+P313 - If skin irritation occurs: Get medical advice/ attention.
 P362 - Take off contaminated clothing and wash before re-use.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
 P391 - Collect spillage.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
solvent naphtha (petroleum), light aliphatic	64742-89-8	10-30%
solvent naphtha (petroleum), medium aliphatic	64742-88-7	10-30%
limestone	1317-65-3	10-30%
hydrotreated paraffinic oil	trade secret	3-7%
ground coal	NA	1-5%
silica compound	proprietary	1-5%
carbon compound	proprietary	1-5%
polybutene	trade secret	1-5%
terpene phenolic resin	proprietary	1-5%
polyphenol antioxidant	trade secret	0.1-1%
mica	12001-26-2	0.1-1%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is recommended.

Exposure

Swallowed IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.
Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.
Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3YE

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Std	Ingredient	WES-TWA*	WES-STEL
	Solvent naphtha (petroleum), limestone	100ppm, 525mg/m ³	data unavailable
	hydrotreated paraffinic oil	10mg/m ³ (calcium carbonate)	data unavailable
	ground coal	5mg/m ³	data unavailable
	silica compound – crystalline silica	3mg/m ³	data unavailable
	mica (may contain crystalline silica)	0.1mg/m ³	data unavailable
		0.1mg/m ³	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin



Protective gloves are recommended. Nitrile, teflon or PVA gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory



A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. . If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	Viscous paste
Odour	hydrocarbon
pH	Not available
Vapour pressure	8.27 mmHg
Viscosity	1100000 cps
Boiling point	119 - 185
Volatile materials	0
Freezing / melting point	<18
Solubility	Negligible
Specific gravity / density	1.03 - 1.04
Flash point	4.4
Danger of explosion	0
Auto-ignition temperature	230
Upper & lower flammable limits	Upper: 6.7% Lower: 0.8%
Corrosiveness	0

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Oxidisers, strong acids, bases.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death.

IF IN EYES: may cause serious eye irritation.

IF ON SKIN: may cause skin irritation. Repeated or prolonged contact may cause drying out of the skin resulting in non-allergic dermatitis. This product can be absorbed through the skin.

INHALED: vapours may cause dizziness and drowsiness and respiratory irritation. Prolonged repeated exposure may affect lungs and CNS.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Solvent naphtha (petroleum), >15000mg/kg (rat). May present and aspiration hazard.
	Dermal	No evidence of dermal toxicity.
	Inhaled	Using LC ₅₀ 's for ingredients, the estimated LC ₅₀ (inhalation, rat) for the mixture is 20mg/L (vapour). May cause dizziness and drowsiness.
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	This mixture does contain crystalline silica, however it is not in an inhalable form. Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC Group 1). The mixture is a paste and does not trigger this classification, however if sanding the cured mixture, respirable dust may result.
	Reproductive / Developmental Systemic	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation. This mixture also contains crystalline silica. This substance is in the form of a paste. Crystalline silica triggers 6.9A classification if it is in the form of a fine respirable dust in an occupational (chronic exposure) setting. This is due to the development of acute silicosis which can occur following exposure to extremely high levels of fine silica dust. Silicosis is a type of pneumoconiosis – a disease of the lung that causes inflammation, scar tissue, lesions and fibrosis in the lung (alveolar). Symptoms include shortness of breath, cough, fever, loss of appetite and cyanosis (bluish skin). Silicosis can occur following prolonged exposure (e.g., 10 years) to relatively high levels of fine crystalline silica dust.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture may be toxic towards aquatic organisms with long lasting effects.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: Solvent naphtha (petroleum), medium aliphatic 2200mg/L (96hr, fish), 2.6 mg/L (96hr, Crustacea), NOEL: 0.48mg/L.
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	The mixture is not considered harmful to terrestrial vertebrates. See acute toxicity above.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1133	Proper shipping name:	ADHESIVES
Class(es)	3	Packing group:	II
Precautions:	Ecotoxic.	Hazchem code:	3YE

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2017.

All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:	
SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Required if > not required is handled or stored.
Tracking	This substance is required to be tracked if > not required is present.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored in any one location.
Fire extinguisher	If > 250L present.

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