

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 (96ht, 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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Bioaccumulation Degradability Soil Terrestrial vertebrate Terrestrial invertebrate Biocidal Environmental effect levels	<p>(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).</p> <p>No data</p> <p>No data</p> <p>No evidence of soil toxicity.</p> <p>This mixture is not considered toxic towards terrestrial vertebrates.</p> <p>No evidence of toxicity towards terrestrial invertebrates.</p> <p>no data</p> <p>No EELs are available for this mixture or ingredients</p>
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13. Disposal Considerations

Restrictions Disposal method Contaminated packaging	<p>There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.</p> <p>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.</p> <p>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.</p>
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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: Class(es) Precautions:	1993 NA Flammable liquid Marine Pollutant	Proper shipping name: Packing group: Hazchem code:	FLAMMABLE LIQUID, N.O.S. III 3Y
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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.
Bundling & 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 Chemicals ⁹
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.

