

1. Identification of Substance & Company

Product

Product name	Sarnacol 2170 Adhesive
Product code	SDF005
HSNO approval	HSR002662
Approval description	Surface coatings and Colourants (Flammable) Group Standard 2020
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	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

NZ 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 2020). The substance has been classified as hazardous according to the criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

GHS 7 Classes

Flammable liquid category 2
 Eye irritant category 2
 Reproductive toxicity category 2
 Lactation category 1
 Chronic aquatic category 3

Hazard Statements

H225 - Highly flammable liquid and vapour.
 H319 - Causes serious 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

Prevention	<p>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.</p>
Response	<p>P101 - If medical advice is needed, have product container or label at hand. 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.</p>
Storage	
Disposal	<p>P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.</p>

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 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.

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	-
	Butanone (bio)	150ppm, 445mg/m ³	300ppm, 890mg/m ³
	Toluene(skin, oto, bio)	20ppm, 75 mg/m ³	100ppm, 377mg/m ³

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

General

Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to be inadequate. Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.

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 protective clothing, rubber boots and impervious gloves. Neoprene and PVA 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 and a particulate filter. 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	liquid (various colours)
Odour	characteristic
Odour Threshold	no data
pH	no data
Freezing/melting point	no data
Boiling Point	no data
Flashpoint	-4°C (closed cup)
Flammability	no data
Upper & lower flammable limits	LEL: 1.8%, UEL: 11.5%
Vapour pressure	75mmHg
Vapour density	no data
Specific gravity/density	0.9g/cm ³ @20°C
Solubility	Insoluble in water
Partition coefficient	no data
Auto-ignition temperature	no data
Decomposition temperature	no data
Viscosity	1600mPa.s (20°C) (dynamic), >7mm ² /s (40°C) (kinetic)
Particle Characteristics	no data

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 Inhaled	No evidence of dermal toxicity. 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 Mutagenicity Carcinogenicity Reproductive / Developmental	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 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. Transport Information

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Precautions:	Flammable liquid	Hazchem code:	3YE

IMDG

UN number:	1133	Proper shipping name:	ADHESIVES
Class(es)	3	Packing group:	II
Precautions:	Flammable liquid	EmS	F-E, S-D

IATA

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

16. 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 2020. 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 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.

17. Other Information

Abbreviations

Approval Code	Approval HSR002662, Surface coatings and Colourants (Flammable) Group Standard 2020 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
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)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7 th revised edition, 2017, published by the United Nations.
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)
NZIoC	New Zealand Inventory of Chemicals
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
STOT RE	System Target Organ Toxicity – Repeated Exposure
STOT SE	System Target Organ Toxicity – Single Exposure
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
May 2018	Not applicable – new SDS
May 2023	5 yearly update, HSNO to GHS 7

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 GHS 7 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 21 1040951**.

