

1. Identification of Substance & Company

Product

Product name	Cav-Grip
Product code	not assigned
HSNO approval	HSR002515
Approval description	Aerosols (Flammable) Group Standard 2017
UN number	3501
DG class	2.1
Proper Shipping Name	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (Dimethyl ether, nitrogen)
Packaging group	NA
Hazchem code	NA
Uses	Solvent-based adhesive

Company Details

Company	Viking Roofspec
Physical Address	80 Alexander Crescent PO Box 14 451 Otara Panmure Auckland Auckland 1741 New Zealand 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 HSR002515, Aerosols (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

2.1.2A
6.1E (respiratory irritation)
6.3A
6.4A
6.9B (narcotic)
6.9A
9.1C

Hazard Statements

H222 - Extremely flammable aerosol.
H335 - May cause respiratory irritation.
H315 - Causes skin irritation.
H320 - Causes eye irritation.
H336 - May cause drowsiness or dizziness.
H372 - Causes damage to organs through prolonged or repeated exposure.
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

P103 - Read label before use.
P210 - Keep away from ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Pressurized container: Do not pierce or burn, even after use.
P260 - Do not breathe 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.
 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.
 P410 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 P405 - Store locked up.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
methyl acetate	79-20-9	35-60%
hexane	110-54-3	12-25%
carbon dioxide	124-38-9	1-7%
dimethyl ether	115-10-6	1-7%

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 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: This product is an aerosol that releases flammable vapours. This product has the potential to cause fire or to create an additional hazard during fire. Buildup of explosive mixtures possible. Container may rupture/explode in a fire. Remove undamaged cans if safe to do so. Leaking or burning cans should be extinguished only when absolutely necessary. Spontaneous or explosive reignition may occur. Extinguish fire in surrounding area.
Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam, fog sprays, water jets.
Unsuitable extinguishing substances: Unknown.
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: Not applicable for Aerosol. Liquid has Hazchem code: 3YE.

6. Accidental Release Measures

Containment	If greater than 3000L 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. 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	Collect undamaged cans and recycle. Collect damaged cans and seal in properly labelled containers or drums for disposal.
Disposal	Collect recoverable material into labelled containers for recycling or salvage. 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. Be aware of fire risk – avoid sources of ignition.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Keep out of direct sunlight. Avoid contact with incompatible substances as listed in Section 10. Keep out of reach of children.
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
	methyl acetate	200ppm, 606mg/m ³	250ppm, 757mg/m ³
	hexane	20ppm, 72mg/m ³	data unavailable
	carbon dioxide	5000ppm, 9000mg/m ³	30000ppm 54000mg/m ³
	dimethyl ether	400ppm, 766mg/m ³	500ppm, 958mg/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. Select eye protection in accordance with AS/NZS 1337.

Skin



Avoid any skin contact. Wear overalls, rubber boots and impervious gloves. Nitrile, teflon or 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

Respiratory



accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. 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	aerosol
Odour	Not determined
pH	Not available
Vapour pressure	not available
Viscosity	no data
Boiling point	-196°C
Volatile materials	0.6608
Freezing / melting point	no data
Solubility	insoluble in water
Specific gravity / density	0.881 g/mL
Flash point	-41°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	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: Hexane vapours may cause reversible damage to kidneys and liver. Prolonged exposure can cause nerve damage (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: methyl acetate 3705mg/kg (rabbit), hexane 25000mg/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 >5,000 ppm. Data considered includes: hexane 48000ppm/4H (rat).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients (methyl acetate, dimethyl ether, hexane) present are considered eye irritants in more concentrated form.

Chronic	<p>Skin</p> <p>Sensitisation</p> <p>Mutagenicity</p> <p>Carcinogenicity</p> <p>Reproductive / Developmental Systemic</p> <p>Aggravation of existing conditions</p>	<p>The mixture is considered to be a skin irritant, because some of the ingredients (methyl acetate, hexane) present are considered skin irritants in more concentrated form.</p> <p>No ingredient present at concentrations > 0.1% is considered a sensitizer.</p> <p>No ingredient present at concentrations > 0.1% is considered a mutagen.</p> <p>No ingredient present at concentrations > 0.1% is considered a carcinogen.</p> <p>No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.</p> <p>The mixture is considered to be a target organ toxicant. Hexane is known to affect the peripheral nervous system. Vapours may cause dizziness and drowsiness.</p> <p>None known.</p>
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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: hexane 2.50mg/L (96hr, Fathead minnow), 3.9mg/L)48hr, Daphnia magna).
Bioaccumulation	Hexane may be bioaccumulative.
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	This mixture is not classed as 9.3. 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:	3501	Proper shipping name:	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (Dimethyl ether, nitrogen)
Class(es)	2.1	Packing group:	NA
Precautions:	Flammable aerosol	Hazchem code:	NA

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002515, Aerosols (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 manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 3000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 3000L is stored.
Signage	Required if > 3000L is stored.
Location compliance certificate	Required if > 3000L is stored.
Flammable zone	Must be established if > 3000L is stored.
Fire extinguisher	If > 3000L 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 HSR002515, Aerosols (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
March 2019	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**.

