

Section 1 – Identification of Chemical Product and Company

Code	Description	Size	Colour
19700	Gorilla Roofers Silicone	300 ml	Clear
19703	Gorilla Roofers Silicone	300 ml	Grey

Recommended use: 20073		Sealant
Supplier contact details:	Soudal Ltd	Freephone: 0800 70 10 80
	14 Avalon Drive	Phone: (07) 847 5540
	Nawton	Fax: (07) 847 0324
	Hamilton 3200	Email: sales@soudal.co.nz
	New Zealand	Website: www.soudal.co.nz
POISON CENTRE NUMBER: 0800 764 766 (24 hours)		

Section 2 – Hazard Identification

Statement of Hazardous Nature

This product is classified as:

HAZARDOUS SUBSTANCE according to the criteria of HSNO.

NOT REGULATED under NZS5433:2007 Transport of Dangerous Goods on Land

Hazardous Substances and New Organisms (HSNO) classification:

Classification	Hazard statements
Eye Effects Category 2 6.4A	H319 Causes serious eye irritation
Skin Sensitisation Category 1 6.5B	H317 May cause an allergic skin reaction
Chronic Aquatic Hazard Category 3 9.1C	H412 Harmful to aquatic life with long lasting effects
Invertebrate Hazard Category 1 9.4A	H431 Very toxic to terrestrial invertebrates

HSNO Signal Word:

WARNING



Precautionary Statements:

PP280	Wear protective gloves/ protective clothing/ eye protection/ face protection	P272	Contaminated work clothing should not be allowed out of the workplace
P281	Use personal protective equipment as required		
P264	Wash all exposed external body parts thoroughly after handling	P273	Avoid release to the environment

Section 3 - Composition/Information on Ingredients

Ingredient	CAS No.	Individual HSNO classification	Concentration (% by Wt.)
Hydroxyl terminated dimethylsiloxane	Proprietary	Eye Effects Category 2; Invertebrate Hazard Category 1	30 – 60
Polydimethylsiloxane	Proprietary	Invertebrate Hazard Category 1	20 – 30
Aliphatic hydrocarbon	Proprietary	Acute Oral Toxicity Category 5; Acute Dermal Toxicity Category 5; Acute Inhalation Toxicity Category 5; Eye Effects Category 1; STOT – SE Narcotic Effects Category 3; Aspiration Category 1	10 – 20
Silicon dioxide, cryst. free	112945-52-5	Acute Inhalation Toxicity Category 5	10 – 20
Methyltri(methylethylketoxime) silane	22984-54-9	Flammable Liquid Category 3; Acute Oral Toxicity Category 5; Acute Dermal Toxicity Category 5; Skin Sensitisation Category 1; STOT – SE Narcotic Effects Category 3	1 – 10
Ethenyltri(methylethylketoxime) silane	2224-33-1	Flammable Liquid Category 4; Acute Oral Toxicity Category 5; Acute Dermal Toxicity Category 5; Skin Sensitisation Category 1	< 1
di-isononyl-cyclohexane-1,2-dicarboxylate with salts of zinc of pyridine-1-oxy-2-thiol	13463-41-7	Acute Oral Toxicity Category 3; Acute Dermal Toxicity Category 3; Acute Inhalation Toxicity Category 2; Skin Effects Category 2; Eye Effects Category 1; Acute Aquatic Hazard Category 1; Chronic Aquatic Hazard Category 1	< 1
1,2-ethanediamine, N-[3-(trimethoxysilyl)propyl]-	1760-24-3	Chronic Aquatic Hazard Category 3	< 1
Diocetyl tin dineodecanoate	68928-76-7	Acute Oral Toxicity Category 4; Acute Dermal Toxicity Category 4; Acute Inhalation Toxicity Category 4; Skin Effects Category 2, Eye Effects Category 2, Respiratory Effects Category 3; STOT – RE Category 2; Chronic Aquatic Hazard Category 3	< 1
Ingredients not contributing to classification			balance

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

Section 4 – First Aid Measures

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Eye contact:

Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin contact:

Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

Inhalation:

remove from contaminated area. Other measures are usually unnecessary.

Ingestion:

Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

General advice and advice for physicians:

Treat symptomatically.

Section 5 - Fire-Fighting Measures

Extinguishing media:

Foam, Carbon Dioxide, Dry Powder

Fire/ Explosion Hazard

High temperature decomposition products include silicon dioxide, small amounts of formaldehyde, formic acid, acetic acid and traces of silicon polymers. These gases may ignite and, depending on circumstances, may cause the resin/polymer to ignite. An outer skin of silica may also form. Extinguishing of fire, beneath the skin, may be difficult. Combustible. Will burn if ignited.

Advice for fire-fighters:

Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation (or protect in place). Fight fire from a safe distance, with adequate cover. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control the fire and cool adjacent area. Avoid spraying water onto liquid pools. Do not approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.

Section 6 - Accidental Release Measures

Minor Spills

Slippery when spilt. Clean up all spills immediately. Avoid contact with skin and eyes. Wear impervious gloves and safety goggles. Trowel up/scrape up. Place spilled material in clean, dry, sealed container. Flush spill area with water.

Major Spills

Slippery when spilt. Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment as required. Prevent spillage from entering drains or water ways. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal. Wash area and prevent runoff into drains or waterways. If contamination of drains or waterways occurs, advise emergency services.

Section 7 - Handling and Storage

Handling:

Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. **DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils.** Avoid contact with incompatible materials. When handling, **DO NOT eat, drink or smoke.** Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Storage:

Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS

Section 8 - Exposure Controls/Personal Protection

Exposure limits:



CAS no.	Substance or ingredient	WES-TWA	WES-STEL

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Engineering Controls:

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances. If risk of overexposure exists, wear approved respirator. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. Provide adequate ventilation in warehouses and enclosed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Exposure controls:

Control	Protective measure
Eye	Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent] No special equipment required due to the physical form of the product. 
Respiratory	Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate. Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.
Skin	Butyl or neoprene recommended Avoid skin contact. If skin contact or contamination of clothing is likely, protective clothing should be worn. [AS 2161] Wear protective clothing. 

Section 9 - Physical and Chemical Properties

General substance properties:

Property	Details
Appearance	Viscous Paste
Odour	Characteristic
pH	No data
Vapour pressure	No data
Viscosity	No data.
Boiling Point	No data

Volatile materials	No data
Freezing/melting point	No data
Solubility	Immiscible
Specific gravity/density	1.20 g/ml
Flash point	No data
Auto-ignition temperature	No data
Upper and lower flammability limits	Lower – % Upper - %
Corrosiveness	No data.

Section 10 - Stability and Reactivity

Stability:

Stable under normal conditions.

Conditions to avoid:

At temperatures > 150 C, silicones can slowly react with the oxygen in air. When heated > 300 C, silicones can slowly depolymerise to volatile siloxanes whether or not air is present.

Incompatible materials to avoid:

Avoid oxidising agents (nitrates, oxidising acids, chlorine bleaches, pool chlorine etc) as ignition may result

Hazardous decomposition products:

Combustion will result in the release of carbon monoxide (CO); carbon dioxide (CO₂), silicon oxides (SiO_x) and other pyrolysis products typical of burning organic materials

Section 11 - Toxicological Information

Summary of Toxicity

Test	Data and symptoms of exposure
Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. The major toxic effects of MEKO, regardless of the route of administration, are anaemia with breakdown of red blood cells, rapid breathing and reversible reduction in spontaneous activity, motor coordination and muscle tone. At extremely high concentrations it may cause unconsciousness and failure of breathing.
Oral	High molecular weight material; on single acute exposure would be expected to pass through gastrointestinal tract with little change / absorption. Occasionally accumulation of the solid material within the alimentary tract may result in formation of a bezoar (concretion), producing discomfort. The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Dermal	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Skin application with methyl ethyl ketoxime under an occlusive dressing produced mild irritation with redness, swelling and wheals. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye	This material can cause eye irritation and damage in some persons. 0.1 ml of methyl ethyl ketoxime can be corrosive to the eye.
Chronic	Inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Methyl ethyl ketoxime causes an immediate but transient central nervous system depression, dose-related decreases in red blood cell counts accompanied by a compensatory marked increase in number of immature red cells, suggesting rapid red cell breakdown. Other effects include dose-related increase in spleen, liver and kidney weights. Deposits of iron have been reported in the liver and spleen at repeated high doses. This may increase risk of liver tumours. The above are derived from results in animal testing. Amorphous silicas generally are less hazardous than crystalline silicas, but the former can be converted to the latter on heating and subsequent cooling. Inhalation of dusts containing crystalline silicas may lead to silicosis, a disabling lung disease that may take years to develop.

Ingredient	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Polydimethylsiloxane, hydroxy terminated	> 5000 mg/kg		
Polydimethylsiloxane	> 35000 mg/Kg	> 3000 mg/Kg	
Aliphatic hydrocarbon	> 5000 mg/Kg	> 2000 mg/Kg	
Silica, amorphous, crystalline free	3160 mg/Kg	> 5000 mg/Kg	
di-isononyl-cyclohexane-1,2-dicarboxylate with salts of zinc of pyridine-1-oxy-2-thiol	177 mg/kg	> 2000 mg/Kg	
1,2-ethanediamine, N-[3-(trimethoxysilyl)propyl]-	7460 mg/Kg	16000 mg/Kg	

Section 12 - Ecological Information

May cause long-term adverse effects in the aquatic environment. Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high-water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites. DO NOT discharge into sewer or waterways

Ingredient	Fish	Crustacea	Algae
Polydimethylsiloxane	LC _{50 96hr} 3.16 mg/L		
Aliphatic hydrocarbon		NOEC _{48hr} 10 mg/L	
Methyltri(methylethylketoxime)silane	LC _{50 96hr} 0.0007 mg/L		EC _{50 96hr} 0.00104 mg/L
di-isononyl-cyclohexane-1,2-dicarboxylate with salts of zinc of pyridine-1-oxy-2-thiol	LC _{50 96hr} 0.0027 mg/L	EC _{50 48hr} 0.0083 mg/L	EC _{50 72hr} 0.0005 mg/L NOEC _{96hr} 0.0032 mg/L
1,2-ethanediamine, N-[3-(trimethoxysilyl)propyl]-	LC _{50 96hr} 597 mg/L NOEC _{96hr} 344 mg/L	EC _{50 48hr} < 1 mg/L	

Section 13 - Disposal Considerations

Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible or consult manufacturer for recycling options. Consult Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill. Ensure that the disposal of material is carried out in accordance with Hazardous Substances (Disposal) Regulations 2001.

Section 14 - Transport Information

NOT REGULATED

Section 15 - Regulatory Information

HSNO approval number and Group Standard:

HSR002670 Surface Coatings & Colourants (Subsidiary Hazard)

Group Standard conditions and other regulations:

Condition	Requirement
SDS	Safety data sheet must be available to a person handling the substance within 10 minutes.
Emergency plan	Required when present in quantities > 1000 Lt
Approved handler	Not required
Tracking	Not applicable
Bunding and secondary containment	Needs to meet the requirements based on total liquid holding
Signage	Not required
Test certificate	Not required
Hazardous Atmosphere zone	Not Required
Fire extinguisher	Not required

Dimethylsiloxane, hydroxy terminated (proprietary) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Workplace Exposure Standard (WES)

Polydimethylsiloxane (CAS 63148-62-9) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

Aliphatic hydrocarbon (CAS 64742-46-7) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- International Agency for Research on Cancer (IARC) – Agents classified by the IARC Monographs
- New Zealand Workplace Exposure Standards (WES_

Silica, amorphous, crystalline free (CAS 112945-52-5) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)

Methyltri(methylethylketoxime)silane (CAS 22984-54-9) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)

Ethenylltri(methylethylketoxime)silane (CAS 2224-33-1) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)

di-isononyl-cyclohexane-1,2-dicarboxylate with salts of zinc of pyridine-1-oxy-2-thiol (CAS 13463-41-7) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

1,2-ethanediamine, N-[3-(trimethoxysilyl)propyl]- (CAS 1760-24-3) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- International Air Transport Association (IATA) Dangerous Goods Regulations – Prohibited List Passenger and Cargo Aircraft
- New Zealand Workplace Exposure Standards (WES_

Dimethyltin dineodecanoate (CAS 68928-76-7) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Workplace Exposure Standard (WES)

National Inventories

Australia	AICS	Y
Canada	DSL	Y
Canada	NDSL	N
China	IECSC	Y

Europe	EINEC/ELINCS/NLP	N
Japan	ENCS	N
Korea	KECI	Y
New Zealand	NZIOC	Y
Philippines	PICCS	Y
USA	TSCA	N

Section 16 – Other Information

Revision History

September 2017	Updated following review of classification
June 2017	Origination

Abbreviations:

Abbreviation	Description
CAS number	Number assigned to chemical in the Chemical Abstracts Service registry
HAZCHEM code	Code used by fire-fighters to determine correct method of action in the case of fire
HSNO	Hazardous Substances and New Organisms (Act)
ICAO Technical Instructions	International Civil Aviation Organization Technical Instructions
IMDG code	International Maritime Dangerous Goods code controlled by the International Maritime Organization (IMO)
LC ₅₀	Lethal concentration 50% - concentration fatal to 50% of the tested population
LD ₅₀	Lethal dose 50% - dose fatal to 50% of the tested population
NZS 5433	New Zealand Standard 5433 (Standard for the Transport of Dangerous Goods on Land)
SDS	Safety data sheet
STEL	Short term exposure limit
TWA	Time weighted average (typically measured as 8 hours)
UN number	United nations number
WES	Workplace exposure standard

References

Chemical properties and HSNO classifications derived from the New Zealand chemical classification information database (CCID). www.epa.govt.nz.

Workplace exposure limits derived from Workplace Exposure Standards and Biological Exposure Indices 7th Edition. www.mbie.govt.nz.

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material in combination with any other material or in any process, unless specified in the text.

This SDS was prepared by Collievale Enterprises Ltd in accord with the EPA "Code of Practice for the Preparation of Safety Data Sheets" [HSNOCOP 8-1 (2006)] <http://www.collievale.com> Phone +64 7 5432428

End of MSDS