

Section 1 Identification of Chemical Product and Company

Code	Description	Size	Colour
20165	Gorilla Firesil Neutral Silicone	310 ml	Grey

Recommended use:		Sealant
HSNO Group Standard		Non-Hazardous
UN number, shipping name and packaging group:		Not regulated
Suppliers contact details:	Soudal Ltd	Freephone: 0800 70 10 80
	14 Avalon Drive	Phone: (07) 847 5540
	Nawton	
	Hamilton 3200	Email: info@soudal.co.nz
	New Zealand	Website: www.soudal.co.nz
POISON CENTRE NUMBER: 0800 764 766 (24 hours)		

Section 2 Hazards Identification

Statement of Hazardous Nature

This product is classified as:

NON-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

HSNO Signal Word:

Precautionary Statements:

Ingredient	CAS No.	Individual HSNO classification	Concentration (% by Wt.)
2-Pentanone, O,O',O"- (methylsilyldiylne)trioxime	37859-55-5	Flammable Liquid Category 4; Acute Oral Toxicity Category 4; Acute Dermal Toxicity Category 4; Eye Effects Category 2;; STOT – RE Category 2; STOT – SE RET Category 3; Chronic Aquatic Hazard Category 4	1 - 10
2-Pentanone, O,O',O"- (ethenylsilyldiylne)trioxime	58190-62-8	Acute Oral Toxicity Category 4; Eye Effects Category 2; STOT – RE Category 2; Acute Aquatic Hazard Category 3; Chronic Aquatic Hazard Category 3	1 - 10
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. If irritation occurs, seek medical attention.

Skin contact:

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 & Emergency New Zealand and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. 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 fire and cool adjacent area. DO NOT approach containers suspected to be hot. Equipment should be thoroughly decontaminated after use.

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

Minor hazard. Clear area of personnel. Alert Fire & Emergency New Zealand 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:

Containers, even those that have been emptied, may contain explosive vapours. Do NOT cut, drill, grind, weld or perform similar operations on or near containers. 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 specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed 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 recommended 
Respiratory	Not generally required, but if concentration exceeds exposure limits then a Type A filter of sufficient capacity is recommended 
Skin	No special equipment needed when handling small quantities. OTHERWISE: For potentially moderate exposures: Wear general Butyl protective gloves. For potentially heavy exposures: Wear chemical protective gloves, eg. PVC. and safety footwear.   

Section 9 Physical and Chemical Properties

General substance properties:

Property	Details
Appearance	Liquid
Odour	Characteristic
pH	No data
Vapour pressure	kPa
Vapour Density	> 2 heavier than air
Viscosity	paste
Boiling Point	No data °C
Volatile materials	No data %
Water solubility	immiscible
Freezing/melting point	No data.
Specific gravity/density	1.005 g/ml

Flash point	>100 °C	
Auto-ignition temperature	No data °C	
Upper and lower flammability limits	Lower %	Upper %
Corrosiveness	No data.	

Section 10 Stability and Reactivity

Stability:

Stable under normal conditions.

Conditions to avoid:

Exposure to excessive heat, open flames and sparks. Avoid conditions that favour the formation of excessive mists and/or fumes. Contact with water may release flammable gases. Contact with water causes a chemical reaction

Incompatible materials to avoid:

Avoid oxidising agents and some acids

Hazardous decomposition products:

Combustion products include carbon monoxide (CO), carbon dioxide (CO₂), Silicone Dioxide (SiO₂) and other pyrolysis products typical of burning organic material.

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. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. 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. Not normally a hazard due to non-volatile nature of product
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	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. 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 bloodstream, 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. Eye exposure to silicone fluids causes temporary irritation of the conjunctiva. Injection into the specific structures of the eye, however, causes corneal scarring, permanent eye damage, allergic reactions and cataract, and may lead to blindness.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. 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

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	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. Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin.
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Ingredient	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Methyltri(methylethylketoxime)silane	> 2260	> 2000	

Section 12 Ecological Information

Very toxic to terrestrial invertebrates.

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.

Ingredient	Fish	Crustacea	Algae
Methyltri(methylethylketoxime)silane	LC ₅₀ 0.00074 mg/L	EC ₅₀ > 120mg/L	EC ₅₀ 0.00104 mg/L NOEC 1 mg/L

	Persistence H ₂ O/ Soil	Persistence Air	Bioaccumulation	Mobility
Methyltri(methylethylketoxime)silane	HIGH	HIGH	LOW	LOW

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 cannot 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. Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled. The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous. Only dispose to the environment if a tolerable exposure limit has been set for the substance. Only deposit the hazardous substance into or onto a landfill or sewage facility or incinerator, where the hazardous substance can be handled and treated appropriately.

Section 14 Transport Information

NOT REGULATED

Section 15 Regulatory Information

HSNO approval number and Group Standard:
Not applicable

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 quantities exceed 1000 Lt
Certified handler	Not required
Tracking	Not applicable

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Bunding and secondary containment	Required dependent on pack size and total volume
Signage	Required when present in quantities exceeding 1000 Lt
Location Compliance Certificate	Not required
Hazardous Area	Not required
Fire extinguisher	Not required

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	Y

Section 16 Other Information

Revision History

August 2020	Reclassification and reformat
February 2020	Reformulation and reformatted
March 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 11th Edition (November 2019).

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 Hazardous Substances (Safety Data Sheets) Notice 2017

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End of SDS