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SAFETY DATA SHEET – POOLKARE CHEMICALS STOP FOAM POLY(DIMETHYL SILOXANE)

Version No: ONE

Safety Data Sheet according to WHS and ADG requirements

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product name	POLY(DIMETHYL SILOXANE)
Chemical Name	poly(dimethyl siloxane)
Chemical formula	[C2H6OSi]n
Other means of identification	POOLKARE CHEMICALS – STOP FOAM
CAS number	9016-00-6

Relevant identified uses of the substance or mixture

Siloxanes, the building blocks for silicone products, are widely used chemicals. The siloxanes are characterised by a highstability, physiologic inertness and good release and lubricating properties. Used as de-foaming agents; food additive. Dimethylpolysiloxane (synonym) is Food Additive 900
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Details of the supplier of the safety data sheet

Registered company name	WOBELEA PTY LTD
Address	18 EMBREY COURT
Telephone	03 5940 1077
Fax	03 5940 2599
Website	www.wobelea.com.au

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	03 5997 1690 or Mobile 0427 367 561
Other emergency telephone numbers	Poisons Information Centre 13 11 26

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

NON-HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

CHEMWATCH HAZARD RATINGS

Flammability	1	Min	Max	
Toxicity	0			0 Minima una
Body Contact Reactivity	1 1			0 = Minimum 1 = Low 2 = Moderate
Chronic	0			3 = High 4 = Extreme

Poisons Schedule	Not Applicable
Classification	Not Applicable

Label elements

GHS label elements	Not Applicable
SIGNAL WORD	NOT APPLICABLE

Hazard statement(s)

Not Applicable

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

CASNo	%[weight]	Name
9016-00-6	100	poly(dimethyl siloxane)

	A mixture of trimethylsiloxy chain-stopped
	poly(dimethyl-siloxanes)

Mixtures

See section above for composition of Substances

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	 If this product comes in contact with the eyes: 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	 If skin contact occurs: 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	 If fumes, aerosols or combustion products are inhaled 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.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- ▶ Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Advice for firefighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area.
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. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: , carbon dioxide (CO2) , silicon dioxide (SiO2) , other pyrolysis products typical of burning organic material. May emit corrosive fumes. CARE: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.
HAZCHEM	Not Applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

	Slippery when spilt.
	▶ Remove all ignition sources.
Minor Spills	► Clean up all spills immediately.
	Avoid breathing vapours and contact with skin and eyes.
	Control personal contact with the substance, by using protective equipment.
	 Silicone fluids, even in small quantities, may present a slip hazard.
	It may be necessary to rope off area and place warning signs around perimeter.
	Clean up area from spill, with suitable absorbant, as soon as practically possible.
Major Spillo	Final cleaning may require use of steam, solvents or detergents.
Major Spins	Moderate hazard.
	 Clear area of personnel and move upwind.
	 Alert Fire Brigade and tell them location and nature of hazard.
	 Wear breathing apparatus plus protective gloves.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin 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. 		
Other information	 Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area. 		

Conditions for safe storage, including any incompatibilities

Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Traces of benzene, a carcinogen, may form when silicones are heated in air above 230 degrees C. Concentrated acids and bases cause degradation of polymer. Boiling water may soften and weaken material. • Avoid reaction with oxidising agents



- X Must not be stored together
- **0** May be stored together with specific preventions
- + May be stored together

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	Material name	I EEL-1	IEEL-2	TEEL-3
poly(dimethyl siloxane)	Polydimethyl siloxane; (Dimethylpolysiloxane)	6.8 mg/m3	75 mg/m3	450 mg/m3
Ingredient	Original IDLH	Revised IDI H		
ingroutent	ongina iben	noviood ib Eli		
poly(dimethyl siloxane)	Not Available	Not Available		

Exposure controls

Appropriate 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.
Personal protection	
Eye and face protection	 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.
Skin protection See Hand protection below	
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and.has to be observed when making a final choice. Personal hygiene is a key element of effective hand care.
Body protection	See Other protection below
Other protection	 Overalls. P.V.C. apron. Barrier cream.
Thermal hazards	Not Available

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2^

^ - Full-face

A(AII classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Clear colourless oily liquid, translucent gum or white solid depending on composition and polymer size (chain length and

degree of cross-linking). No odour. The fluid has a melting point however the gums do not. Silicone fluids and gums are
soluble in most organic solvents such as the aliphatic and aromatic hydrocarbons, chlorinated hydrocarbons and higher
alcohols. Some properties vary according to viscosity: Nominal viscosity, 25C (Cstk) 10 50 100 500 1000
100,000 specific gravity 0.940 0.962 0.968 0.970 0.971 0.977 pour point, C65 -55 -55 -50 -50 -46 flash point, C. >163 >277
>304 >322 >322 S322 Mixes with toluene.

Physical state	Liquid	Relative density (Water = 1)	approx. 1 (see b
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	437-480
pH (as supplied)	Not Applicable	Decomposition temperature	Not available.
Melting point / freezing point (°C)	<-50 (fluids).	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	>250 (degrades).	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	135-335 (open)	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not available.	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not available.	Volatile Component (%vol)	0.5-10.0
Vapour pressure (kPa)	Negligible.	Gas group	Not Available
Solubility in water (g/L)	Partly miscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not available.	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7		
Chemical stability	 Silicone fluids are stable under normal storage conditions. Hazardous polymerisation will not occur. 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. Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur. 		
Possibility of hazardous reactions	See section 7		
Conditions to avoid	See section 7		
Incompatible materials	See section 7		
Hazardous decomposition products	See section 5		

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

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. Vapours of silicones are generally fairly well tolerated, however very high concentrations can cause death within minutes due to respiratory failure. At high temperatures, the fumes and oxidation products can be irritating and toxic and can cause depression leading to death in very high doses. Not normally a hazard due to non-volatile nature of product
Ingestion	Silicone fluids do not have a high acute toxicity. They may have a laxative effect and produce central nervous system depression. 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.
Skin Contact	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. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Low molecular weight silicone fluids may exhibit solvent action and may produce skin irritation.
Eye	There is some evidence to suggest that this material can cause eye irritation and damage in some persons. 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	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

poly(dimethyl	тохісіту	IRRITATION
siloxane)	Not Available	Eye (rabbit): 100 mg/1h - mild.
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

Poly dimethyl siloxane)	Siloxanes may impair liver and hormonal function, as well as the lung and kidney. They have not been found to be irritating to the skin and eyes. They may potentially cause cancer (tumours of the womb in females) and may cause impaired fertility or infertility. No significant acute toxicological data identified in literature search. NOTE: Tumorigenic in rats : Neoplastic by RTECS criteria. Product subject to review for use in body implants Chronic exposure Carcinogenicity-rat-Implant Tumorigenic:Neoplastic by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. Endocrine:Tumors		
	_	-	
Acute Toxicity	Carcinogenicity	0	
Skin Irritation/Corrosion	S Reproductivity	\otimes	
Serious Eye Damage/Irritation	STOT - Single Exposure	0	
Respiratory or Skin sensitisation	STOT - Repeated Exposure	0	
Mutagenicity	S Aspiration Hazard	0	
	Legend: X- Data avai	able but does not fill the criteria for classification	

.egena: 🗙 – Data

✓ – Data available to make classification
 N – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
poly(dimethyl siloxane)	BCF	72	Fish	1.33mg/L	4
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

For Siloxanes:

Environmental Fate: Siloxanes are used in cosmetics, wax, polishes, and to a minor extent in several other applications.

Atmospheric Fate: In the presence of nitrate ions, short chain siloxanes are broken down by sunlight to the level of silicate within days. The main source atmospheric siloxane release to the air is via evaporation.

Aquatic Fate: It is well accepted that polydimethylsiloxane fluids become permanent residents of sediment but should not have adverse environmental effects.

|Bioaccumulation Hypophthalmichthys molitrix - 72 h|Bioconcentration factor (BCF): 1,250|Fish LC50 (96 h): rainbow trout (Oncorhyncus mykiss) gt;10000 mg/l|Fish LD50 (24 h): 4500 mg/L

Persistence and degradability

Ingredient

Persistence: Water/Soil

	No Data available for all ingredients	No Data available for all ingredients
Bioaccumulative potential		

Ingredient	Bioaccumulation
	No Data available for all ingredients
Mobility in soil	

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

	Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: Reduction Reuse Recycling Disposal (if all else fails)
Product / Packaging	This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.
disposal	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 State Land Waste Authority for disposal.
	Bury or incinerate residue at an approved site.
	Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required		
Marine Pollutant	NO	
HAZCHEM	Not Applicable	

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

POLY(DIMETHYL SILOXANE)(9016-00-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (poly(dimethyl siloxane))
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (poly(dimethyl siloxane))

Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Υ
Philippines - PICCS	Y
USA - TSCA	N (poly(dimethyl siloxane))
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
poly(dimethyl siloxane)	9016-00-6, 28323-47-9

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted AveragePC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit。 IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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