



Ardex SE Silicone

Ardex (Ardex Australia)

Chemwatch: 4661-42

Version No: 4.1.1.1

Safety Data Sheet according to WHS and ADG requirements.

Chemwatch Hazard Alert Code: 1

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S: OHS AUS EN

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

Product Identifier

Product name	Ardex SE Silicone
Synonyms	Not Available
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Use according to manufacturer's directions.
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Details of the supplier of the safety data sheet

Registered company name	Ardex (Ardex Australia)
Address	20 Powers Road Seven Hills 2147 NSW Australia
Telephone	1800 224 070
Fax	1300 780 102
Website	Not Available
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	1800 224 070 (Mon-Fri, 9am-5pm)
Other emergency telephone numbers	Not Available

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

	Min	Max
Flammability	1	
Toxicity	0	1 - Medium 2 - Low
Body Contact	1	2 - Medium 3 - High
Reactivity	1	3 - Extreme
Chronic	0	

Poisons Schedule Not Applicable

Classification Not Applicable

Label elements

GHS label elements Not Applicable

SIGNAL WORD NOT APPLICABLE

Hazard statement(s)

Continued...

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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

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
17689-77-9	<5	<u>ethyltriacetoxysilane</u>
63148-62-9	NotSpec.	<u>polydimethylsiloxane</u>
Not Available	NotSpec.	fillers
Not Available	NotSpec.	auxillary substances

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes.</p> <ul style="list-style-type: none">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	<p>If skin contact occurs:</p> <ul style="list-style-type: none">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	<ul style="list-style-type: none">If fumes, aerosols or combustion products are inhaled remove from contaminated area.Other measures are usually unnecessary.
Ingestion	<ul style="list-style-type: none">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	<ul style="list-style-type: none">Alert Fire Brigade and tell them location and nature of hazard.Wear breathing apparatus plus protective gloves.Prevent, by any means available, spillage from entering drains or water courses.Use water delivered as a fine spray to control fire and cool adjacent area.
Fire/Explosion Hazard	<ul style="list-style-type: none">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). <p>Combustion products include; carbon monoxide (CO) carbon dioxide (CO2) silicon dioxide (SiO2) other pyrolysis products typical of burning organic material May emit corrosive fumes.</p>

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Minor Spills**
- Clean up all spills immediately.
 - Avoid contact with skin and eyes.

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Major Spills

- ▶ Wear impervious gloves and safety goggles.
 - ▶ Trowel up/scrape up.
- 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.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe 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.

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

- ▶ Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
polydimethylsiloxane	Dimethyl siloxane, (Dimethylpolysiloxane, Syltherm XLT, Syltherm 800, Silicone 360)	1.5 mg/m3	16 mg/m3	990 mg/m3
Ingredient	Original IDLH	Revised IDLH		
ethyltriacetoxysilane	Not Available	Not Available		
polydimethylsiloxane	Not Available	Not Available		
fillers	Not Available	Not Available		
auxiliary substances	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

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)

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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 filler.

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(All 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)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Transparents or tinted paste with a pungent odour, does not mix with water.		
Physical state	Non Slump Paste	Relative density (Water = 1)	1.0
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	460 approx.
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	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)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Product is considered stable and 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.	
Ingestion	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	There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.	
Eye	There is some evidence to suggest that this material can cause eye irritation and damage in some persons.	
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.	
Ardex SE Silicone	TOXICITY Not Available	IRRITATION Not Available
ethyltriacetoxysilane	TOXICITY Oral (rat) LD50: 2394 mg/kg ^[1]	IRRITATION Not Available

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polydimethylsiloxane

TOXICITY

Dermal (rabbit) LD50: >2000 mg/kg^[2]
Oral (rat) LD50: >17000 mg/kg^[2]

IRRITATION

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

ETHYLTRIAACETOXYLSILANE

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

No data of toxicological significance identified in literature search.

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.

POLYDIMETHYLSILOXANE

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. No toxic response noted during 90 day subchronic inhalation toxicity studies. The no observable effect level is 450 mg/m³. Non-irritating and non-sensitising in human patch test. [Xerox]*

Acute Toxicity

Skin Irritation/Corrosion

Serious Eye Damage/Irritation

Respiratory or Skin sensitisation

Mutagenicity

Carcinogenicity

Reproductivity

STOT - Single Exposure

STOT - Repeated Exposure

Aspiration Hazard

Legend: X - Data available but does not fit the criteria for classification
✓ - Data required to make classification available
- - - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
ethyltriacetoxysilane	EC50	96	Algae or other aquatic plants	<1.000mg/L	3
ethyltriacetoxysilane	EC50	96	Algae or other aquatic plants	12.726mg/L	3
ethyltriacetoxysilane	LC50	96	Fish	79- 88mg/L	2
ethyltriacetoxysilane	EC50	48	Crustacea	62mg/L	2
ethyltriacetoxysilane	NOEC	72	Algae or other aquatic plants	16.98mg/L	2
polydimethylsiloxane	LC50	96	Fish	3.16mg/L	4

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

Legend:

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ethyltriacetoxysilane	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
ethyltriacetoxysilane	LOW (LogKOW = 0.7378)

Mobility in soil

Ingredient	Mobility
ethyltriacetoxysilane	LOW (KOC = 69.91)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging: Recycle wherever possible or consult manufacturer for recycling options.

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- disposal**
- ▶ 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

Source	Ingredient	Pollution Category
IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk	polydimethylsiloxane	Y

SECTION 15 REGULATORY INFORMATION

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

ETHYLTRIACETOXSILANE(17689-77-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

POLYDIMETHYLSILOXANE(63148-62-9) 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 (polydimethylsiloxane; ethyltriacetoxysilane)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (polydimethylsiloxane)
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y

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

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

- PC—TWA: Permissible Concentration-Time Weighted Average
- PC—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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