

# Permatex Sensor-Safe High Temp RTV Silicone Gasket

ITW AAMTech

Chemwatch: 5062-26

Version No: 5.1.1.1

Material Safety Data Sheet according to NOHSC and ADG requirements

Chemwatch Hazard Alert Code: 4

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S.Local.AUS.EN

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

### Product Identifier

<b>Product name</b>	Permatex Sensor-Safe High Temp RTV Silicone Gasket
<b>Synonyms</b>	PX81422
<b>Other means of identification</b>	Not Available

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

<b>Relevant identified uses</b>	applications where there are high temperatures.
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### Details of the manufacturer/importer

<b>Registered company name</b>	ITW AAMTech	ITW AAMTech
<b>Address</b>	Unit 2/38 Trugood Drive 2013 New Zealand	100 Hassall Street 2164 NSW Australia
<b>Telephone</b>	+64 9272 1940	1800 177 989
<b>Fax</b>	+64 9272 1949	1800 308 556
<b>Website</b>	www.aamtech.co.nz	www.aamtech.com.au
<b>Email</b>	info@aamtech.co.nz	info@aamtech.com.au

### Emergency telephone number

<b>Association / Organisation</b>	Not Available	Not Available
<b>Emergency telephone numbers</b>	+800 2436 2255	1800 039 008
<b>Other emergency telephone numbers</b>	Not Available	+61 3 9573 3112

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture


**HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.** According to the Criteria of NOHSC, and the ADG Code.

<b>Poisons Schedule</b>	Not Applicable	
<b>Risk Phrases</b> <sup>[1]</sup>	<b>R67</b>	Vapours may cause drowsiness and dizziness.
	<b>R41</b>	Risk of serious damage to eyes.
	<b>R35</b>	Causes severe burns.
<b>Legend:</b>	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI	
<b>GHS Classification</b> <sup>[1]</sup>	Skin Corrosion/Irritation Category 1A, Serious Eye Damage Category 1, STOT - SE (Narcosis) Category 3	
<b>Legend:</b>	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI	

### Label elements

Continued...

## Permatex Sensor-Safe High Temp RTV Silicone Gasket

GHS label elements	
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SIGNAL WORD	DANGER
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## Hazard statement(s)

H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H336	May cause drowsiness or dizziness

## Precautionary statement(s) Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

## Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physician/first aider

## Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

## Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
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## Label elements



Relevant risk statements are found in section 2

Indication(s) of danger	C
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## SAFETY ADVICE

S01	Keep locked up.
S02	Keep out of reach of children.
S04	Keep away from living quarters.
S20	When using do not eat or drink.
S21	When using do not smoke.
S26	In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
S281	After contact with skin, wash immediately with detergent and plenty of water.
S35	This material and its container must be disposed of in a safe way.
S36	Wear suitable protective clothing.
S37	Wear suitable gloves.
S39	Wear eye/face protection.
S40	To clean the floor and all objects contaminated by this material, use water and detergent.
S45	In case of accident or if you feel unwell IMMEDIATELY contact Doctor or Poisons Information Centre (show label if possible).

Continued...

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<b>S46</b>	If swallowed, seek medical advice immediately and show this container or label.
<b>S56</b>	Dispose of this material and its container at hazardous or special waste collection point.
<b>S64</b>	If swallowed, rinse mouth with water (only if the person is conscious).

## Other hazards

	Skin contact and/or ingestion may produce health damage*.
	Limited evidence of a carcinogenic effect*.
	Cumulative effects may result following exposure*.
	May produce discomfort of the respiratory system*.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

## Substances

See section below for composition of Mixtures

## Mixtures

CAS No	%[weight]	Name
70131-67-8	>60	<u>dimethylsiloxane, hydroxy-terminated</u>
7631-86-9	5-15	<u>silica amorphous</u>
64742-46-7.	5-15	<u>distillates, petroleum, middle, hydrotreated</u>
63148-62-9	1-10	<u>polydimethylsiloxane</u>
17689-77-9	1-10	<u>ethyltriacetoxysilane</u>
4253-34-3	1-10	<u>methyltriacetoxysilane</u>
Not Available	NotSpec.	NOTE: During curing or on exposure to moist
Not Available	NotSpec.	air product generates
64-19-7	NotSpec.	<u>acetic acid glacial</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

## SECTION 4 FIRST AID MEASURES

## Description of first aid measures

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>▶ 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.</li> <li>▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Remove all contaminated clothing, including footwear</li> <li>▶ Remove adhering sticky material using a waterless hand cleaner</li> <li>▶ Flush skin and hair with soap and running water, repeating as required .</li> <li>▶ In event of visible or subsequent irritation seek medical attention.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor, without delay.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ For advice, contact a Poisons Information Centre or a doctor at once.</li> <li>▶ Urgent hospital treatment is likely to be needed.</li> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> </ul>

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- ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- ▶ Transport to hospital or doctor without delay.

### Indication of any immediate medical attention and special treatment needed

For acute or short term repeated exposures to strong acids:

- ▶ Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially.
- ▶ Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling
- ▶ Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.
- ▶ Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the dessicating action of the acid on proteins in specific tissues.

INGESTION:

- ▶ Immediate dilution (milk or water) within 30 minutes post ingestion is recommended.
- ▶ **DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury.**
- ▶ Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to one or two glasses in an adult.
- ▶ Charcoal has no place in acid management.
- ▶ Some authors suggest the use of lavage within 1 hour of ingestion.

SKIN:

- ▶ Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping.
- ▶ Deep second-degree burns may benefit from topical silver sulfadiazine.

EYE:

- ▶ Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjunctival cul-de-sacs. Irrigation should last at least 20-30 minutes.  
**DO NOT use neutralising agents or any other additives.** Several litres of saline are required.
- ▶ Cycloplegic drops, (1% cyclopentolate for short-term use or 5% homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears may be indicated dependent on the severity of the injury.
- ▶ Steroid eye drops should only be administered with the approval of a consulting ophthalmologist).

[Ellenhorn and Barceloux: Medical Toxicology]

Treat symptomatically.

## SECTION 5 FIREFIGHTING MEASURES

### Extinguishing media

- ▶ Water spray or fog.
- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ 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

- 43silic
- ▶ 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.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

#### Minor Spills

- Slippery when spilt.
- ▶ Clean up all spills immediately.
  - ▶ Avoid contact with skin and eyes.
  - ▶ Wear impervious gloves and safety goggles.

#### Major Spills

- Slippery when spilt.  
Moderate hazard.
- ▶ Clear area of personnel and move upwind.
  - ▶ Alert Fire Brigade and tell them location and nature of hazard.

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

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## SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▸ Avoid all personal contact, including inhalation.</li> <li>▸ Wear protective clothing when risk of exposure occurs.</li> <li>▸ Use in a well-ventilated area.</li> <li>▸ Prevent concentration in hollows and sumps.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▸ Store in original containers.</li> <li>▸ Keep containers securely sealed.</li> <li>▸ No smoking, naked lights or ignition sources.</li> <li>▸ Store in a cool, dry, well-ventilated area.</li> </ul>

### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▸ Polyethylene or polypropylene container.</li> <li>▸ Packing as recommended by manufacturer.</li> <li>▸ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>▸ Avoid strong bases.</li> <li>▸ Avoid reaction with oxidising agents alkalies</li> </ul>

### PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	silica amorphous	Precipitated silica (a) / Silica gel (a) / Silica - Amorphous Precipitated silica (a) / Silica - Amorphous Silica gel (a)	10 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	silica amorphous	Silica, fused / Silica - Crystalline Silica, fused	Not Available	Not Available	Not Available	Not Available
Australia Exposure Standards	silica amorphous	Diatomaceous earth (uncalcined) (a) / Silica - Amorphous Diatomaceous earth (uncalcined)(a)	10 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	silica amorphous	Silica - Amorphous Fume (thermally generated)(respirable dust) (g)	2 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	silica amorphous	Silica - Amorphous Fumed silica (respirable dust) / Fumed silica (respirable dust)	2 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	distillates, petroleum, middle, hydrotreated	Oil mist, refined mineral	5 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	acetic acid glacial	Acetic acid	25 mg/m3 / 10 ppm	37 mg/m3 / 15 ppm	Not Available	Not Available

#### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
dimethylsiloxane, hydroxy-terminated	Dimethyl(polysiloxane); (Polydimethylsiloxane, silanol terminated; Dimethylsiloxane, poly, hydroxy end-blocked)	190 mg/m3	2100 mg/m3	13000 mg/m3
silica amorphous	Silica gel, amorphous synthetic	6 mg/m3	6 mg/m3	6 mg/m3
silica amorphous	Silica, amorphous fumed	6 mg/m3	6 mg/m3	630 mg/m3
silica amorphous	Diatomaceous earth; (Silica-amorphous diatomaceous earth (uncalcined))	18 mg/m3	200 mg/m3	1200 mg/m3
silica amorphous	Siloxanes and silicones, dimethyl, reaction products with silica; (Hydrophobic silicon dioxide, amorphous)	0.07 mg/m3	0.77 mg/m3	4.6 mg/m3
silica amorphous	Silica, amorphous fume	0.3 mg/m3	0.3 mg/m3	1.6 mg/m3
silica amorphous	Silica amorphous hydrated	6 mg/m3	6 mg/m3	85 mg/m3


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silica amorphous	Diatomaceous silica, calcined	0.9 mg/m3	9.9 mg/m3	59 mg/m3
distillates, petroleum, middle, hydrotreated	Hydrotreated middle distillate (Petroleum base oil)	0.23 mg/m3	2.5 mg/m3	15 mg/m3
polydimethylsiloxane	Dimethyl siloxane; (Dimethylpolysiloxane; Syltherm XLT; Syltherm 800; Silicone 360)	1.5 mg/m3	16 mg/m3	990 mg/m3
methyltriacetoxysilane	Methyltriacetoxysilane	6.2 mg/m3	68 mg/m3	410 mg/m3
acetic acid glacial	Acetic acid	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
dimethylsiloxane, hydroxy-terminated	Not Available	Not Available
silica amorphous	N.E. mg/m3 / N.E. ppm	3,000 mg/m3
distillates, petroleum, middle, hydrotreated	Not Available	Not Available
polydimethylsiloxane	Not Available	Not Available
ethyltriacetoxysilane	Not Available	Not Available
methyltriacetoxysilane	Not Available	Not Available
NOTE: During curing or on exposure to moist	Not Available	Not Available
air product generates	Not Available	Not Available
acetic acid glacial	1,000 ppm	50 ppm

## Exposure controls

<b>Appropriate engineering controls</b>	<p>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.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p>
<b>Personal protection</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields; or as required,</li> <li>▶ Chemical goggles.</li> <li>▶ 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.</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> <li>▶ Barrier cream.</li> </ul>
<b>Thermal hazards</b>	Not Available

## Recommended material(s)

## GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

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Material	CPI
BUTYL	C

## Respiratory protection

Type AB-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	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
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## Permatex Sensor-Safe High Temp RTV Silicone Gasket

BUTYL/NEOPRENE	C
NAT+NEOPR+NITRILE	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NITRILE	C
NITRILE+PVC	C
PE	C
PE/EVAL/PE	C
PVC	C
SARANEX-23	C
TEFLON	C

Protection Factor			
up to 10 x ES	AB-AUS P2	-	AB-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AB-AUS / Class 1 P2	-
up to 100 x ES	-	AB-2 P2	AB-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)

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

<b>Appearance</b>	Red coloured combustible paste with a strong acetic acid odour; not miscible with water.		
<b>Physical state</b>	Non Slump Paste	<b>Relative density (Water = 1)</b>	1.05
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Applicable	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Applicable
<b>Flash point (°C)</b>	>93 (TCC)	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Applicable	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Applicable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	<1.33 @ 27 C	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Applicable
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## SECTION 10 STABILITY AND REACTIVITY

<b>Reactivity</b>	See section 7
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## Permatex Sensor-Safe High Temp RTV Silicone Gasket

<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

<b>Inhaled</b>	<p>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>The material is not thought to produce adverse health effects following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.</p>
<b>Ingestion</b>	<p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.</p> <p>Ingestion of low-molecular organic acid solutions may produce spontaneous haemorrhaging, production of blood clots, gastrointestinal damage and narrowing of the oesophagus and stomach entry.</p> <p>Smoothing the sealant with saliva wet finger may introduce sealant into the mouth.</p>
<b>Skin Contact</b>	<p>The material can produce chemical burns following direct contact with the skin.</p> <p>Excessive use or prolonged contact may lead to defatting, drying and irritation of sensitive skin</p> <p>Low molecular weight silicone fluids may exhibit solvent action and may produce skin irritation.</p> <p>The material may cause severe 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. Repeated exposures may produce severe ulceration.</p>
<b>Eye</b>	<p>The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.</p> <p>If applied to the eyes, this material causes severe eye damage.</p> <p>Eye exposure to silicone fluids causes temporary irritation of the conjunctiva.</p>
<b>Chronic</b>	<p>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.</p> <p>[The cured sealant is chemically and physiologically inert and non-hazardous.]</p>

Permatex Sensor-Safe High Temp RTV Silicone Gasket	TOXICITY	IRRITATION
	Not Available	Not Available
dimethylsiloxane, hydroxy-terminated	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >15520 mg/kg <sup>[2]</sup>	Nil reported
	Inhalation (rat) LC50: >8.75 mg/L/7H <sup>[2]</sup>	
silica amorphous	TOXICITY	IRRITATION
	Oral (rat) LD50: >62080 mg/kg*d <sup>[2]</sup>	
	Dermal (rabbit) LD50: >2000 mg/kg* <sup>[1]</sup>	* [Grace]
	Inhalation (rat) LC50: >0.139 mg/l/14h * <sup>[2]</sup>	Eye (rabbit): non-irritating *
distillates, petroleum, middle, hydrotreated	TOXICITY	IRRITATION
	Oral (rat) LD50: >3160 mg/kg* <sup>[2]</sup>	Skin (rabbit): non-irritating *
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	[CCINFO-Shell]
	TOXICITY	IRRITATION
	Oral (rat) LD50: >5000 mg/kg <sup>[1]</sup>	None reported [EXXON]



## Permatex Sensor-Safe High Temp RTV Silicone Gasket

polydimethylsiloxane	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[2]</sup>	Eye (rabbit): 100 mg/1h - mild
	Oral (rat) LD50: >17000 mg/kg <sup>[2]</sup>	
ethyltriacetoxysilane	TOXICITY	IRRITATION
	Oral (rat) LD50: 2394 mg/kg <sup>[1]</sup>	Not Available
methyltriacetoxysilane	TOXICITY	IRRITATION
	Oral (rat) LD50: 2060 mg/kg <sup>[2]</sup>	Not Available
acetic acid glacial	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 1060 mg/kg <sup>[2]</sup>	Eye (rabbit): 0.05mg (open)-SEVERE
	Inhalation (mammal) LC50: 11.4 mg/L/4H <sup>[2]</sup>	Skin (human):50mg/24hr - mild
	Inhalation (mouse) LC50: 5620 ppm/1H <sup>[2]</sup>	Skin (rabbit):525mg (open)-SEVERE
	Oral (rat) LD50: 3310 mg/kg <sup>[2]</sup>	
<b>Legend:</b> 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's msds. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances		

DIMETHYLSILOXANE, HYDROXY-TERMINATED	<p>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.</p> <p>* [Mobay Chemical Corp] **[GE]</p>
SILICA AMORPHOUS	<p>For silica amorphous:</p> <p>When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body. Following absorption across the gut, SAS is eliminated via urine without modification in animals and humans. SAS is not expected to be broken down (metabolised) in mammals.</p> <p>Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS]</p>
DISTILLATES, PETROLEUM, MIDDLE, HYDROTREATED	<p>The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives;</p> <p>The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since:</p> <ul style="list-style-type: none"> <li>▸ The adverse effects of these materials are associated with undesirable components, and</li> <li>▸ The levels of the undesirable components are inversely related to the degree of processing;</li> <li>▸ Distillate base oils receiving the same degree or extent of processing will have similar toxicities;</li> <li>▸ The potential toxicity of <i>residual base oils</i> is independent of the degree of processing the oil receives.</li> <li>▸ The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing.</li> </ul> <p>Unrefined &amp; mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential carcinogenic and mutagenic activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components.</p> <p>typical for isoparaffinic hydrocarbons: isoparaffinic hydrocarbon:</p>
POLYDIMETHYLSILOXANE	<p>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.</p> <p>The material may be irritating to the eye, with prolonged contact causing inflammation.</p> <p>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]*</p>
METHYLTRIACETOXYSILANE	<p>The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>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.</p>
ETHYLTRIACETOXYSILANE & ACETIC ACID GLACIAL	<p>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</p>

## Permatex Sensor-Safe High Temp RTV Silicone Gasket

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.

Acute Toxicity	☐	Carcinogenicity	☐
Skin Irritation/Corrosion	✓	Reproductivity	☐
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	☐	STOT - Repeated Exposure	☐
Mutagenicity	☐	Aspiration Hazard	☐

Legend: ✓ – Data required to make classification available  
 ✗ – Data available but does not fill the criteria for classification  
 ☐ – Data Not Available to make classification

## CMR STATUS

Not Applicable

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

**DO NOT** discharge into sewer or waterways.

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
silica amorphous	LOW	LOW
ethyltriacetoxysilane	HIGH	HIGH
methyltriacetoxysilane	HIGH	HIGH
acetic acid glacial	LOW	LOW

## Bioaccumulative potential

Ingredient	Bioaccumulation
silica amorphous	LOW (LogKOW = 0.5294)
ethyltriacetoxysilane	LOW (LogKOW = 0.7378)
methyltriacetoxysilane	LOW (LogKOW = 0.2467)
acetic acid glacial	LOW (LogKOW = -0.17)

## Mobility in soil

Ingredient	Mobility
silica amorphous	LOW (KOC = 23.74)
ethyltriacetoxysilane	LOW (KOC = 69.91)
methyltriacetoxysilane	LOW (KOC = 35.19)
acetic acid glacial	HIGH (KOC = 1)

## SECTION 13 DISPOSAL CONSIDERATIONS

## Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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## SECTION 14 TRANSPORT INFORMATION

## Labels Required

Continued...

<b>Marine Pollutant</b>	NO
<b>HAZCHEM</b>	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 73 / 78 and the IBC code**

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	polydimethylsiloxane	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	acetic acid glacial	Z

## SECTION 15 REGULATORY INFORMATION

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

<b>dimethylsiloxane, hydroxy-terminated(70131-67-8) is found on the following regulatory lists</b>	"Not Applicable"
<b>silica amorphous(7631-86-9) is found on the following regulatory lists</b>	"Australia Exposure Standards", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "Australia Hazardous Substances Information System - Consolidated Lists"
<b>distillates, petroleum, middle, hydrotreated(64742-46-7.) is found on the following regulatory lists</b>	"Australia Exposure Standards", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "Australia Hazardous Substances Information System - Consolidated Lists"
<b>polydimethylsiloxane(63148-62-9) is found on the following regulatory lists</b>	"Not Applicable"
<b>ethyltriacetoxysilane(17689-77-9) is found on the following regulatory lists</b>	"Not Applicable"
<b>methyltriacetoxysilane(4253-34-3) is found on the following regulatory lists</b>	"Not Applicable"
<b>acetic acid glacial(64-19-7) is found on the following regulatory lists</b>	"Australia Exposure Standards", "Australia Hazardous Substances Information System - Consolidated Lists"

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (dimethylsiloxane, hydroxy-terminated; polydimethylsiloxane)
Japan - ENCS	N (distillates, petroleum, middle, hydrotreated)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
<b>Legend:</b>	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
dimethylsiloxane, hydroxy-terminated	63148-60-7, 70131-67-8
silica amorphous	112926-00-8, 112945-52-5, 60676-86-0, 61790-53-2, 67762-90-7, 68611-44-9, 68909-20-6, 69012-64-2, 7631-86-9, 844491-94-7, 91053-39-3

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](http://www.chemwatch.net)

The (M)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.

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