



No CLP prevention statements

**[Response]:**

No CLP response statements

**[Storage]:**

No CLP storage statements

**[Disposal]:**

No CLP disposal statements

See Technical Data Sheet.

**2.3. Other hazards**

This product contains PBT/vPvB chemicals.

### 3. Composition/information on ingredients

If the product contains substances that present a health hazard within the meaning of the Dangerous Substances Directive 67/548/EC, or have occupational exposure limits detailed in EH40, these substances are listed below.

Ingredient/Chemical Designations	Weight %	67/548/EEC Classification*	EC No. 1272/2008 Classification*	Notes
Polydimethyl hydrogenmethyl siloxane CAS Number: 0068037-59-2 EC No. Index No.:	1.0 - 10		----	[1]
Cyclotetrasiloxane, octamethyl- CAS Number: 0000556-67-2 EC No. 209-136-7 Index No.: 014-018-00-1	0.10 - 1.0	Repr. Cat. 3;R62 R53	Repr. 2;H361f Aquatic Chronic 4;H413	[1][3]

<sup>31</sup>CLP Reference EC No. 1272/2008 1.1.3.1. Notes relating to the identification, classification and labelling of substances (Table 3.1).

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

### 4. First aid measures

#### 4.1. Description of first aid measures

<b>General</b>	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
<b>Inhalation</b>	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
<b>Eyes</b>	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
<b>Skin</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Wipe off excess material with cloth or paper. Use a waterless hand cleaner to remove as much of the remaining material as possible.
<b>Ingestion</b>	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

#### 4.2. Most important symptoms and effects, both acute and delayed

## Overview

Acute health effects Route of entry or possible contact: Eyes, skin, ingestion  
Eye contact: May cause slight eye irritation.  
Chronic health effects:  
This material contains crystalline silica. However, due to the physical nature of this material inhalation of silica dust is not possible. Prolonged or repeated inhalation of vapors may have adverse effects on the reproductive system, based on animal testing of a component of this material.  
Target organs affected: Liver and Female Reproductive System.  
Signs and Symptoms of Exposure: Refer to Acute Health Effects, listed above.  
See section 2 for further details.

## 5. Fire-fighting measures

### 5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, sand.

Do not use: Water, dry chemical, halones .

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

### 5.3. Advice for fire-fighters

Special exposure hazards: Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases. Hazardous decomposition products: carbon dioxide, carbon monoxide, formaldehyde, silicon dioxide and incompletely burnt hydrocarbons.

Fire-fighting procedures: Fire fighters should wear full protective clothing including a self-contained breathing apparatus. Cool endangered containers with water. Hydrogen gas can become trapped under foam blankets, so sources of ignition must be eliminated during the clean-up and recovery process. Fire and explosion hazards: Caution! Under certain conditions this material may generate flammable hydrogen gas. Consider possible formation of explosive mixtures with air, for example in uncleaned containers by moisture. Never use welding or cutting torch on or near any container of this material, even if empty, because an explosion could occur. Spontaneous ignition is possible due to electrostatic discharge. The generation of hydrogen gas is increased under circumstances mentioned in Sect. 10 "Stability and reactivity". Explosion limits for hydrolysis product: 4-75.6% v/v (hydrogen).

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## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8). If the material is released, indicate risk of slipping. HAZWOPER PPE Level: D

### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

**6.3. Methods and material for containment and cleaning up**

Containment: Prevent material from entering surface waters, drains or sewers and soil. Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

Methods for cleaning up: Take up mechanically and dispose of according to local/state/federal regulations. Use vented recovery containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Apply sand or other inert granular material to improve traction. Eliminate all sources of ignition.

**7. Handling and storage**

**7.1. Precautions for safe handling**

Avoid excessive heat, sparks, open flame and other sources of ignition. Avoid contact with incompatible materials.

Open and handle container with care. Ensure adequate ventilation. Keep container closed when not in use. Keep away from incompatible substances in accordance with section 10. Where possible, inert process equipment and blanket vessels, tanks and containers with nitrogen to reduce the available oxygen level. Contact CASTALDO for additional publications on the safe Handling of SiH Products. Store in the original container. Protect against moisture. Store in a dry and cool place. Store container in a well ventilated place. Take precautionary measures against electrostatic charging.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in the original container. Protect against moisture. Store in a cool, dry well ventilated place.

Incompatible materials: Basic substances (e.g. alkalis, ammonia, amines), oxidizing agents, strong acids.

**7.3. Specific end use(s)**

No data available.

**8. Exposure controls and personal protection**

**8.1. Control parameters**

**Exposure**

CAS No.	Ingredient	Source	Value
0000556-67-2	Cyclotetrasiloxane, octamethyl-	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0068037-59-2	Polydimethyl hydrogenmethyl siloxane	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

**Carcinogen Data**

CAS No.	Ingredient	Source	Value
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0000556-67-2	Cyclotetrasiloxane, octamethyl-	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0068037-59-2	Polydimethyl hydrogenmethyl siloxane	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

## 8.2. Exposure controls

### Respiratory

Not normally required.

### Eyes

Wear safety glasses with side shields. Wear chemical goggles when possibility for splashing exists.

### Skin

Butyl rubber protective gloves, neoprene gloves, PVC gloves.

### Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

### Other Work Practices

Safety showers and eye wash stations should be provided in areas where this product is used. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

## 9. Physical and chemical properties

<b>Appearance</b>	Green Paste
<b>Odor</b>	Characteristic
<b>Odor threshold</b>	Not Measured
<b>pH</b>	NA
<b>Melting point / freezing point</b>	NA
<b>Initial boiling point and boiling range</b>	NA
<b>Flash Point</b>	NA
<b>Evaporation rate (Ether = 1)</b>	NA
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> NA <b>Upper Explosive Limit:</b> NA
<b>Vapor pressure (Pa)</b>	NA
<b>Vapor Density</b>	APPROX. 1-1.5 G/CM3 (ESTIMATED VALUE)
<b>Specific Gravity</b>	NA
<b>Solubility in Water</b>	Virtually insoluble
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured
<b>Auto-ignition temperature</b>	NA
<b>Decomposition temperature</b>	NA
<b>Viscosity (cSt)</b>	NA

VOC %

NA

### 9.2. Other information

According to previous experience autoignition of SiH containing products on a catalytically active surface may occur at a much lower temperature than expected. This applies to porous or fibrous substances including those with alkaline surfaces, such as thermal insulation and cementaceous insulating materials. Explosion limits for released hydrogen: 4 - 75.6%(V). Re 9.2 pH Value: Product displays neutral reaction.

## 10. Stability and reactivity

### 10.1. Reactivity

Hazardous Polymerization will not occur.

### 10.2. Chemical stability

Stable under normal circumstances.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

Moisture. Heat, open flames, and other sources of ignition. Contact with contaminated piping or vessels or with corroded and rusty containers can increase the rate of hydrogen formation.

Materials to avoid: Reacts with: acids, basic substances (e.g. alkalis, ammonia, amines), alcohols, water, moisture, oxidizing agents, catalyst. Reaction causes the formation of: hydrogen.

### 10.5. Incompatible materials

Basic substances (e.g. alkalis, ammonia, amines), oxidizing agents, strong acids.

### 10.6. Hazardous decomposition products

Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

## 11. Toxicological information

### Acute toxicity

In a 90-day subchronic inhalation study with OMCTS/D4, female rats at the highest dose level of 300 ppm showed a reversible increase in liver and ovary weights. Rats exposed to inhalation concentrations of 5 ppm and 10 ppm, did not show any toxic effects. Toxicity to reproduction/fertility: Impurity: In a two generation reproductive study via inhalation with OMCTS/D4 rats, decreased mean live litter size and prolonged labor (dystocia) were observed at the 500 ppm and 700 ppm exposure levels. The relevance of these effects in humans cannot be determined at this time. Because these effects are only seen at very high exposure levels, it is unlikely that industrial, commercial and/or consumer uses of products containing OMCTS/D4 would result in a significant risk to humans. Based on animal experiments there is no indication of developmental effects.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Polydimethyl hydrogenmethyl siloxane - (68037-59-2)	No data available	No data available	No data available	No data available	No data available
Cyclotetrasiloxane, octamethyl- - (556-67-2)	2,000.00, Rat - Category: 4	4,640.00, Rabbit - Category: 5	36.00, Rat - Category: NA	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

## 12. Ecological information

### 12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

### Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Polydimethyl hydrogenmethyl siloxane - (68037-59-2)	Not Available	Not Available	Not Available
Cyclotetrasiloxane, octamethyl- - (556-67-2)	200.00, Leuciscus idus	25.20, Daphnia magna	Not Available

### 12.2. Persistence and degradability

Biologically not degradable. Insoluble in water. Separation by sedimentation.

### 12.3. Bioaccumulative potential

No adverse effects expected

#### 12.4. Mobility in soil

Insoluble in water. No adverse effects expected.

#### 12.5. Results of PBT and vPvB assessment

This product contains PBT/vPvB chemicals.

#### 12.6. Other adverse effects

No data available.

### 13. Disposal considerations

#### 13.1. Waste treatment methods

Material that cannot be used or chemically reprocessed should be disposed of at an approved facility in accordance with any applicable governmental regulations. Material designated for disposal must be segregated from incompatible substances or materials specified in Sect. 10. Wastes of this material should not be mixed with other wastes. Provide measures such as vented bungs to ensure pressure relief in the waste containers.

Packaging disposal recommendation: Containers may contain hazardous quantities of hydrogen gas. Uncleaned containers should not be reused to hold another material due to the potential for reaction between residual product and incompatible materials. Uncleaned packaging should be treated with the same precautions as the material. Containers should be completely emptied before recycling as specified in government regulations.

### 14. Transport information

	<b>DOT (Domestic Surface Transportation)</b>	<b>IMO / IMDG (Ocean Transportation)</b>	<b>ICAO/IATA</b>
<b>14.1. UN number</b>	Not Applicable	Not Regulated	Not Regulated
<b>14.2. UN proper shipping name</b>	Not Regulated	Not Regulated	Not Regulated
<b>14.3. Transport hazard class(es)</b>	<b>DOT Hazard Class:</b> Not Applicable <b>DOT Label:</b> ---	<b>IMDG:</b> Not Applicable <b>Sub Class:</b> Not Applicable	<b>Air Class:</b> Not Applicable
<b>14.4. Packing group</b>	Not Applicable	Not Applicable	Not Applicable
<b>14.5. Environmental hazards</b>			
<b>IMDG</b>	Marine Pollutant: No		
<b>14.6. Special precautions for user</b>	No further information		

### 15. Regulatory information

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



## EU Legislation

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

## National Legislation

None noted.

## 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H361f Suspected of damaging fertility.

H413 May cause long lasting harmful effects to aquatic life.

R53 May cause long-term adverse effects in the aquatic environment.

R62 Possible risk of impaired fertility.

**This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.**

Disclaimer: The information contained herein is considered accurate; however, Goodwin Refractory Services Ltd makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.

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