

SAFETY DATA SHEET

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: #500 High-Temp Red Silicone

Company: POLYGEM INC.
PO Box 609
West Chicago, Illinois 60186

Telephone: 630-231-5600
630-231-5604 (Fax Line)

Emergency Telephone Number: 1-800-535-5053 USA
01-352-323-3444 International

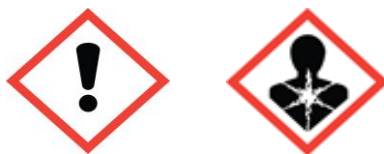
Section 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION OF SUBSTANCE OR MIXTURE:

Physical Hazards: Not Classified
Health Hazards: Reproductive toxicity (fertility) Category 2
Environmental Hazards: Not Classified
OSHA Defined Hazards: Not Classified

GHS LABEL ELEMENTS:

HAZARD SYMBOLS:



SIGNAL WORD: Warning

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective

HAZARD STATEMENTS: H361: Suspected of damaging fertility or the unborn child

PRECAUTIONARY STATEMENTS:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P264: Wash ... thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection. [As modified by IV ATP]

RESPONSE: P352: Wash with plenty of water/... [As modified by IV ATP]

P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves, clothing, and eye/face protection.
P302 + P352 IF ON SKIN: wash with plenty of soap and water

RESPONSE: P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical attention.
P337+P313 If eye irritation persists: Get medical attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

STORAGE: Store Locked up.

DISPOSAL: P501 Dispose of contents and containers in accordance with local, regional and international regulations.

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) – Annex III

HMIS RATING:

CHEMICAL NAME	
HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

OSHA GHS Classification

This product is classified as hazardous as defined within the GHS OSH Hazard Communication Standard 29CFR1910 1200

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS				
Chemical Name	CAS #	OSHA PEL *	ACGIH TLV*	WT%
Ethyltriacetoxysilane	1789-77-9	N/E	N/E	1-5
Methylacetoxysilane	4253-34-3	N/E	N/E	1-5
Titanium Dioxide	13463-67-7	N/E	N/E	<1
Distallates (petroleum), hydrotreated mid.	64742-46-7	N/E	N/E	1-7
Octamethylcyclotetrasiloxane (impurity)	556-67-2			<1

GHS/CLP: Skin Irr. 2 - H315; Skin Sens. 1 - H317; Eye Irr. 2 - H319

*ALL INGREDIENTS ARE REGISTERED ON TSCA.

*Unless otherwise noted, all PEL and TLV Values are reported as 8 hour time weighted averages (TWA)

Section 4 - FIRST AID MEASURES

Description of First Aid Measures

General advice: consult a physician; show this SDS to doctor in attendance.

In the event of skin contact: Drench the affected area immediately with plenty of water:

Remove contaminated clothing. Wash thoroughly with soap and water for at least 15 minutes

Seek medical attention if irritation, rash or other adverse effects occur.

In the event of eye contact: Bathe the eye with running water for at least 15 minutes, lifting the upper and lower eye lids. Get medical attention if symptoms persist.

In the event of exposure by inhalation: Move person to fresh air. Get medical attention if symptoms develop

Most important symptoms and effects both acute and delayed

Skin irritation, allergic reactions.

Indication of immediate medical attention and special treatment needed

No specific antidote; treat symptomatically

Eye wash stations and emergency showers should be available.

Section 5 - FIRE FIGHTING MEASURES

Recommended Extinguishing Media: Foam, carbon dioxide, dry chemicals or fog. Use water spray to cool fire exposed containers. **Do not use direct water stream which may spread fire.**

Special Fire Fighting Procedures: Firefighters should wear protective goggles and self contained breathing apparatus to avoid inhalation of smoke or vapors. Remove all ignition sources.

Unusual Fire or Explosion Hazards

Exposure to decomposition products may be harmful to health; combustion products may include but are not limited to: carbon monoxide, carbon dioxide, phenolics, aldehydes; smoke may contain particles of the original material as well. Prevent fire-fighting waters from entering sewer or waterways.

Advice for fire fighters: Use protective fire fighting clothing and positive pressure self-contained breathing apparatus to protect against potential harmful and/or irritating fumes. Do not use high volume water jet as this may spread the area of the fire. Additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material; Have an eye wash station available.

Skin and Body Protection: Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt.

An apron may be appropriate if splashing can occur.

Section 6: Accidental Release Measures

Special Protection: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred.

Steps to be taken in case of material is released or spilled:

Keep unnecessary personnel away. Local authorities should be advised if significant spillage cannot be contained.

Ventilate the area. Absorb spill with suitable absorbent material and place into a closed container.

Prevent material from entering waterways. Wear protective equipment during cleanup. Use eye and skin protection.

Transport Emergency Phone Number: (INFOTRAC) 1-800-535-5053

Section 7: Handling and Storage

Handling: Harmful or irritation material. Avoid contact and avoid breathing the material
Use only in a well ventilated area.

Storage: Store in a cool, dry place.

Respiratory Protection: If vapor or mist is generated and the occupational exposure limit is exceeded, use appropriate NIOSH/MSHA approved self-contained breathing equipment or a full face respirator. Respirators should be selected by and used following requirements found in OSHA's respirator standards (29 CFR 1910.134). Not required for properly ventilation area.

Ventilation: Local exhaust and general ventilation is recommended.

Section 8: Exposure Control/Personal Protection (continued)

Hand Protection: Nitrile Rubbers gloves.

Eye Protection: Wear safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material; Have an eye wash station available.

Skin and Body Protection: Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt. An apron may be appropriate if splashing can occur.

Occupational exposure limits:**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	CAS #	Type	Value
Titanium Dioxide	13463-67-7	PEL	15 mg/m3
Decomposition			
Acetic Acid	64-19-7	PEL	25 mg/m3 10 ppm

US. ACGIH Threshold Limit Values

Components	CAS #	Type	Value
Titanium Dioxide	13463-67-7	TWA	10 mg/m3
Decomposition			
Acetic Acid	64-19-7	STEL TWA	15 ppm 10 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Decomposition			
Acetic Acid	64-19-7	STEL TWA	37 mg/m3 15 ppm 25 mg/m3 10 ppm

Biological limit values: No biological exposure limits for the ingredient(s).

Appropriate engineering Provide adequate general and local exhaust. Provide eyewash station. Pay attention to ventilation such as local exhaust, mechanical and/or open door for at least 24 hours after applications.

Individual protection such as personal protection equipment,

Eye / face protection: Tightly sealed safety glasses according to EN 166.

Skin / Hand protection: Wear protective gloves.

Other: Wear suitable protective clothing

Respiratory protection: If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General Hygiene: Do not eat, drink or smoke. Keep away from food or drink. Wash hands before breaks and immediately after handling the product. Contaminated work clothes should not be allowed out of the work place. Handle in accordance with good industrial hygiene and safety practices.

Section 9: Physical and Chemical Properties

Physical state:	Gel
Color:	Translucent, White, Black and Aluminum
Odor:	Acetic odor
Weight by gallon:	N/A
Solids (% by weight)	100
V.O.C.	0 g/L

Boiling range:	280 F
Melting point:	N/A
Density:	1
Percent volatile:	0 by Weight
Vapor density (air=1):	Heavier than air
Vapor pressure (mm Hg):	N/A
Evaporation rate:	<1 (Butyl Acetate = 1)
Water miscibility:	Not applicable

Section 10: Stability and Reactivity

Stability:	Stable
Incompatibility:	Strong Oxidizers, acids, bases and epoxy hardeners under controlled conditions.
Hazardous polymerization:	Will not occur.
Hazardous decomposition products:	Carbon Monoxide, Carbon Dioxide, smoke. Others Unknown.
Conditions to avoid:	Heat and warm storage.

Section 11: Toxicological Information

Information on likely routes of exposure

Ingestion:	Expected to be a low ingestion hazard.
Inhalation:	Prolonged inhalation may be harmful.
Skin contact:	No adverse effects due to skin contact are expected.
Eye contact:	Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical, and toxicological characteristics:	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Toxicological data

Decomposition

Acetic acid

Acute

Dermal

LD50

Inhalation

LC 50

Oral

LD50

CAS #	Species	Test Results
64-19-7		
	Rabbit	1060 mg/kg
	Guinea Pig	5000 ppm, 1 hours
	Mouse	5620 ppm, 1 hours
	Rat	11.4 mg/l, 4hours
	Mouse	4960 mg/kg
	Rabbit	1200 mg/kg
	Rat	3.31 g/kg

Skin corrosion / irritation:

Causes severe skin burns and eye damage. (Acetic acid)
Skin-Rabbit: 500 mg/24hr.MILD (Octamethylcyclotetrasiloxane)

Serious eye damage/eye irritation:

Causes serious eye damage. (Acetic acid) Eye – Rabbit: MILD (Octamethylcyclotetrasiloxane)

Respiratory Sensitization:

Not available.

Skin Sensitization:

No evidence of sensitization (Octamethylcyclotetrasiloxane)

Germ Cell Mutagenicity:

Negative (Bacteria) (Octamethylcyclotetrasiloxane)

Carcinogenicity:

The following material is embedded in the product and not available as respirable dusts.
When used as intended or as supplied, the product will not pose hazards. Titanium Oxide.

IARC Monographs,

Overall Evaluation of Carcinogenicity.

Titanium oxide (CAS 13463-67-7)

Evaluation of Carcinogenity

2B Possibly carcinogenic to humans.

OSHA Specifically

Not listed

Regulated Substances (29 CFR 1910.1001-1050):

Not listed

Reproductive Toxicity:

Octamethylcyclotetrasiloxane administered to rats by whole body inhalation at concentrations of 500 and 700 ppm for 70 days prior to mating, through mating, gestation and lactation resulted in decreases in live litter size. Additionally, increases in the incidence of deliveries of offspring extending over an unusually long time period (dystocia) were observed at these concentrations. Statistically significant alterations in these parameters were not observed in the lower concentrations evaluated (300 and 70 ppm). In a previous range-finding study, rats exposed to vapor concentrations of 700 ppm had decreases in the number of implantation sites and live litter size. The significance of these findings to humans is not known. (Octamethylcyclotetrasiloxane)

Specific target organ toxicity – single exposure:

Not available

Specific target organ toxicity – repeated exposure:

Repeated inhalation or oral exposure of mice and rats to Octamethylcyclotetrasiloxane produced an increase in liver size. No gross histopathological or significant clinical chemistry effects were observed. An increase in liver metabolizing enzymes, as well as a transient increase (hypertrophy) were determined in the number of normal cells (hyperplasia) followed by an increase in cell size to be the underlying causes of the liver enlargement. The biochemical effects are highly sensitive in rodents, while similar mechanisms in these humans are insensitive. A two year combined chronic and carcinogenicity assay was conducted on

Section 11: Toxicological Information (Continued)

Octamethylcyclotetrasiloxane. Rats were exposed by whole-body vapor mechanisms producing inhalation 6hrs /day, 5 days a week for up to 104 weeks to 0, 10, 30, 150 or 700 ppm of hyperplasia and uterine adenomas (benign tumors) were observed in female rats at 700 ppm. Since these effects only occurred at 700 ppm, a level that greatly exceeds typical workplace or consumer exposure, it is unlikely that industrial, commercial or consumer uses of products containing Octamethylcyclotetrasiloxane would result in a significant risk to humans.

Aspiration hazard:

Not available

Chronic effects:

Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

Further Information:

This product reacts with water, moisture or humid air to evolve following compounds:
Acetic acid.

Section 12: Ecological Information

Ecotoxicity

Octamethylcyclotetrasiloxane: May cause long lasting harmful effects to aquatic life.

Components

Species

Test Results

Titanium oxide

(CAS 13463-67-7)

Aquatic

Crustacea

EC50

Water Flea (Daphnia magna)

> 1000 mg/l, 48 hours

Fish

LC50

Mummichog (Fundulus

> 1000 mg/l, 96 hours

Heteroclitus)

Decomposition

Acetic acid

(CAS 64-19-7)

Aquatic

Crustacea

EC50

Water flea (Daphnia Magna)

65 mg/l, 48 hours

Fish

LC50

Bluegill (Leponis Macrochirus)

75mg/l, 96 hours

Persistence and degradability: Not available.

Bioaccumulative potential: Bio concentration Factor (BCF) / (Flathead minnow): 12400 Octamethylcyclotetrasiloxane.

Mobility in Soil: Not available.

Other adverse effects: Not available

Section 13: Disposal Considerations

To the best of our knowledge, this product does not meet the definition of hazardous waste under U.S. EPA Hazardous Waste Regulations 40 CFR 261. Disposal via incineration at an approved facility is recommended. Consult state, local or provincial authorities for more restrictive requirements.

Section 14: Transport Information

Consult Bill of Lading for transportation information

DOT: Not Regulated

IATA: Not Regulated

Section 15: Regulatory Information

US federal regulations:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA)

SARA 313 (TRI reporting)

US State Regulations

- **Massachusetts: Substance List:** Titanium oxide (CAS 13463-67-7)

- **New Jersey Worker and Community Right to Know Act:** Titanium oxide (CAS 13463-67-7)

- **Pennsylvania Worker and Community Right to Know Act:** Titanium oxide (CAS 13463-67-7)

- **Rhode Island RTK:** Not regulated.

- **California Proposition 65:** The following material is embedded in the product and not available as respirable dusts.

When used as intended or as supplied, the product will not pose hazards.

- **US California Proposition 65 – CRT:** Listed date / Carcinogenic substance

Titanium oxide (CAS 13463-67-7) Listed: September 2, 2011

International Inventories

Country(s) or region

Inventory Name

On Inventory (yes/no)*

Australia

Australian Inventory of Chemical Substances (AICS)

Yes

Canada

Domestic Substances List (DSL)

Yes

Section 15: Regulatory Information (Continued)

Canada	Non Domestic Substances (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemicals	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances	Yes
Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
United States	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country.

A "No" indicates that one or more components of the product are not listed or exempted from listing on the inventory administered by the governing country.

Section 16: Other Information

This information is furnished without warranty, representation inducement or license of any kind, except that is accurate to the best of Polygem Inc. knowledge, or obtained from sources believed by Polygem Inc. to be accurate and Polygem Inc. does not assure any legal responsibility for use reliance upon the same. Customers are encouraged to conduct their own tests. Before using any product, please read its label.

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