

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	<p><b>Combustible material; avoid heat and sources of ignition.</b>  <b>Toxic compound, do not ingest or inhale. Avoid all contact with this material.</b>                      Irritating to skin, eyes, and the respiratory system.                      Moisture sensitive material.                      Store under nitrogen.</p>	

**Section I. Chemical Product and Company Identification**

Chemical Name	<b>Octamethylcyclotetrasiloxane</b>		
Catalog Number	00142	Supplier	TCI America 9211 N. Harborgate St. Portland OR 1-800-423-8616
Synonym	Cyclic Dimethylsiloxane Tetramer		
Chemical Formula	C <sub>8</sub> H <sub>24</sub> O <sub>4</sub> Si <sub>4</sub>		
CAS Number	556-67-2	In case of Emergency Call	<b>Chemtrec®</b> <b>(800) 424-9300 (U.S.)</b> <b>(703) 527-3887 (International)</b>

**Section II. Composition and Information on Ingredients**

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Octamethylcyclotetrasiloxane	556-67-2	Min. 98.0 (GC)	Not available.	Rat LC <sub>50</sub> (inhalation) 36gm/m <sup>3</sup> /4H Rat LD <sub>50</sub> (oral) 1540mg/kg Rabbit LD <sub>50</sub> (dermal) 794µL/kg

**Section III. Hazards Identification**

Acute Health Effects	Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	<p><b>CARCINOGENIC EFFECTS</b> : Not available.  <b>MUTAGENIC EFFECTS</b> : Not available.  <b>TERATOGENIC EFFECTS</b> : Not available.  <b>DEVELOPMENTAL TOXICITY</b> Reproductive Effects:                      Rat TDLo (Inhalation) 500 ppm, male 70 days and 70 days prior to mating - 3 weeks after birth prior to mating.                      Toxic Effects:                      Effects on Newborn - Live birth index.                      Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.</p>

**Section IV. First Aid Measures**

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
Ingestion	INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.

**Section V. Fire and Explosion Data**

Flammability	Combustible.	Auto-Ignition	Not available.
Flash Points	54°C (129.2°F).	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO <sub>2</sub> ). Some metallic oxides.		
Fire Hazards	Not available.		

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Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	Combustible liquid. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion. Consult with local fire authorities before attempting large scale fire-fighting operations.

### Section VI. Accidental Release Measures

Spill Cleanup Instructions	Combustible liquid. Toxic material. Irritating material. Moisture sensitive material. Store under nitrogen. Keep away from heat. Mechanical exhaust required. Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with DRY earth, sand or other non-combustible material. Absorb with an inert material and put the spilled material in an appropriate waste disposal. DO NOT touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.
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### Section VII. Handling and Storage

Handling and Storage Information	COMBUSTIBLE. TOXIC. IRRITANT. MOISTURE SENSITIVE. STORE UNDER NITROGEN. Keep away from heat. Mechanical exhaust required. Avoid excessive heat and light. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Treat symptomatically and supportively. Avoid contact with skin and eyes. Always store away from incompatible compounds such as oxidizing agents, acids, alkalis (bases).
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### Section VIII. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.
Personal Protection	Splash goggles. Lab coat. Vapor respirator. Boots. Gloves. A MSHA/NIOSH approved respirator must be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
	
Exposure Limits	Not available.

### Section IX. Physical and Chemical Properties

Physical state @ 20°C	Liquid. (Colorless, oily.)	Solubility	Insoluble in water.
Specific Gravity	0.956 (water=1)		
Molecular Weight	296.62	Partition Coefficient	Not available.
Boiling Point	175 to 176°C (347 to 348.8°F)	Vapor Pressure	Not available.
Melting Point	17 to 18°C (62.6 to 64.4°F)	Vapor Density	1 (Air = 1)
Refractive Index	1.3968 @ 20°C	Volatility	Not available.
Critical Temperature	Not available.	Odor	Not available.
Viscosity	Not available.	Taste	Not available.

### Section X. Stability and Reactivity Data

Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Moisture sensitive. Avoid excessive heat and light. May decompose on exposure to moist air or water.
Incompatibilities	Reactive with strong oxidizing agents, acids, alkalis (bases).

### Section XI. Toxicological Information

RTECS Number	GZ4397000
Routes of Exposure	Eye contact. Inhalation. Ingestion.
Toxicity Data	Rat LC <sub>50</sub> (inhalation) 36gm/m <sup>3</sup> /4H Rat LD <sub>50</sub> (oral) 1540mg/kg Rabbit LD <sub>50</sub> (dermal) 794µL/kg
Chronic Toxic Effects	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Not available. <b>DEVELOPMENTAL TOXICITY</b> Reproductive Effects: Rat TDLo (Inhalation) 500 ppm, male 70 days and 70 days prior to mating - 3 weeks after birth prior to mating. Toxic Effects: Effects on Newborn - Live birth index. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

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Emergency phone number (800) 424-9300

Acute Toxic Effects	Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
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## Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	Octamethylcyclotetrasiloxane is an anthropogenic compound which has a wide variety of commercial and consumer uses. Release to the environment may be possible during waste disposal from its production and use. If released to soil, it may rapidly volatilize to the atmosphere, although its potential for strong adsorption to soil may attenuate the rate of this process. It is expected to be stable to hydrolysis except in clay soils. If released to water, it is expected to rapidly volatilize to the atmosphere. Its volatilization half-life from a model river has been estimated to be approximately 5 hrs. It is resistant to biodegradation and will not hydrolyze. An experimental bioconcentration factor indicates that it has the potential to bioconcentrate in fish, although some reports indicate that this is unlikely in the environment due to its rapid rate of volatilization. If released to the atmosphere, it is expected to degrade by the gas-phase reaction with photochemically produced hydroxyl radicals with a half-life of 10 days. Oxidation by ozone and nitrate radicals and direct photolysis are not expected to be important fate processes. Occupational exposure may occur by inhalation or dermal exposure during its production or use. Members of the general population may be exposed by dermal contact or inhalation due to its use in cosmetic products.

## Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.
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## Section XIV. Transport Information

DOT Classification	CLASS 3: Combustible liquid CLASS 6.1: Toxic material.
PIN Number	UN1992
Proper Shipping Name	Flammable liquid, toxic, n.o.s.
Packing Group (PG)	III
DOT Pictograms	



## Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This compound is <b>ON</b> the EPA Toxic Substances Control Act (TSCA) inventory list. This product is subject to SARA section 313 reporting requirements. (8a PAIR)
WHMIS Classification (Canada)	CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
EINECS Number (EEC)	209-136-7
EEC Risk Statements	R36/38- Irritating to eyes and skin. R24- Toxic in contact with skin.
Japanese Regulatory Data	Not available.

## Section XVI. Other Information

**Version 1.0**  
**Validated on 7/24/2002.**  
**Printed 2/24/2005.**

### Notice to Reader

TCl laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.