

TSE382-C

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** TSE382-C

**Other means of identification**

**Synonyms:** Ketoxime Silicone Sealant

**Recommended use and restriction on use**

**Recommended use:** Silicone Elastomer

**Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information** : Momentive Performance Materials USA LLC  
2750 Balltown Road,  
Niskayuna, NY 12309

**Contact person** : commercial.services@momentive.com

**Telephone** : General information  
+1-800-295-2392

**Emergency telephone number**  
**Supplier** : CHEMTREC  
1-800-424-9300

## 2. Hazard(s) identification

**Hazard Classification**

**Health Hazards**

Serious Eye Damage/Eye Irritation	Category 2A
Skin sensitizer	Category 1
Toxic to reproduction	Category 2
Specific Target Organ Toxicity - Repeated Exposure	Category 2 <sup>1</sup>

**Target Organs**

1. Cardiovascular system

**Unknown toxicity - Health**

Acute toxicity, oral	0 %
Acute toxicity, dermal	0 %
Acute toxicity, inhalation, vapor	0 %
Acute toxicity, inhalation, dust or mist	0 %

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**Label Elements**

**Hazard Symbol:**



**Signal Word:** Warning

**Hazard Statement:** H319; Causes serious eye irritation.  
H317; May cause an allergic skin reaction.  
H361; Suspected of damaging fertility or the unborn child.  
H373; May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statements**

**Prevention:** Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

**Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Specific treatment (see on this label). Wash contaminated clothing before reuse.

**Storage:** Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None.

**Substance(s) formed under the conditions of use:** Generates methanol during cure.

**3. Composition/information on ingredients**

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**Mixtures**

Chemical Identity	CAS number	Content in percent (%)*	Notes
methyl tris-(methyl ethyl ketoximo) silane	22984-54-9	1 - <5%	# This substance has workplace exposure limit(s).
butanone oxime vinylsilane	2224-33-1	0.1 - <1%	# This substance has workplace exposure limit(s).
Aminoethyl aminopropyl trimethoxy silane	1760-24-3	0.1 - <1%	# This substance has workplace exposure limit(s).
Octamethylcyclotetrasiloxane	556-67-2	0.1 - <1%	# This substance has workplace exposure limit(s).

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. First-aid measures**

- Ingestion:** Seek immediate medical attention. Do not induce vomiting.
- Inhalation:** Move to fresh air. Get medical attention if symptoms occur.
- Skin Contact:** Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.
- Eye contact:** Rinse the eye with water immediately. If eye irritation persists: Get medical advice/attention.

**Most important symptoms/effects, acute and delayed**

- Symptoms:** None known.
- Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

- Treatment:** Treatment is symptomatic and supportive.

**5. Fire-fighting measures**

- General Fire Hazards:** Use water spray to keep fire-exposed containers cool. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Use standard firefighting procedures and consider the hazards of other involved materials.

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**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** All standard extinguishing agents are suitable.

**Unsuitable extinguishing media:** Avoid water in straight hose stream; will scatter and spread fire.

**Specific hazards arising from the chemical:** By heating and fire, irritating vapors/gases may be formed. In case of fire, carbon monoxide and carbon dioxide may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking.

**Special protective equipment for fire-fighters:** Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Keep unauthorized personnel away. Keep upwind. See Section 8 of the SDS for Personal Protective Equipment.

**Methods and material for containment and cleaning up:** Put in an empty container for recovery after preventing spill by sand or sandbags,if the amount of spill is large. Put in an empty container for recovery after wiping or soaking up in an inert material,if the amount of spill is small.

**Notification Procedures:** Remove sources of ignition.

**Environmental Precautions:** Do not allow runoff to sewer, waterway or ground.

**7. Handling and storage**

**Precautions for safe handling:** Wear appropriate personal protective equipment. Keep away from sources of ignition - No smoking. Avoid inhalation of vapors and spray mists. Use only with adequate ventilation.

**Conditions for safe storage, including any incompatibilities:** Store in a dark, cool place indoors, with container tightly closed.

**8. Exposure controls/personal protection**

**Control Parameters**  
**Occupational Exposure Limits**

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Chemical Identity	Type	Exposure Limit Values	Source
Octamethylcyclotetrasiloxane	TWA	5 ppm	
Octamethylcyclotetrasiloxane - Vapor.	ST ESL	1,000 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	100 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Octamethylcyclotetrasiloxane	TWA	10 ppm	US. OARS. WEELs Workplace Environmental Exposure Level Guide (2014)

**Appropriate Engineering Controls**

Use only in well-ventilated areas. Use only in well-ventilated areas. Eye washes and showers for emergency use. Provide adequate general and local exhaust ventilation.

**Individual protection measures, such as personal protective equipment**

**General information:** Wear suitable gloves and eye/face protection.

**Eye/face protection:** Safety glasses with side shields

**Skin Protection**

**Hand Protection:** Rubber or plastics gloves

**Other:** Wear rubber boots. Chemical resistant clothing

**Respiratory Protection:** If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

**Hygiene measures:** Avoid contact with eyes, skin, and clothing. Wash hands after handling. When using do not eat, drink or smoke.

**9. Physical and chemical properties**

**Appearance**

**Physical state:** liquid  
**Form:** Paste  
**Color:** Colorless  
**Odor:** Faint  
**Odor threshold:** No data available.  
**pH:** No data available.  
**Melting point/freezing point:** No data available.  
**Initial boiling point and boiling range:** Not applicable  
**Flash Point:** 106 °C  
**Evaporation rate:** Not applicable

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<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Heat of combustion:</b>	No data available.
<b>Vapor pressure:</b>	Not applied
<b>Vapor density:</b>	No data available.
<b>Density:</b>	ca. 1.04 g/cm <sup>3</sup>
<b>Relative density:</b>	1.04
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water) Log Pow:</b>	No data available.
<b>Auto-ignition temperature:</b>	450 °C
<b>Decomposition temperature:</b>	No decomposition if stored and applied as directed.
<b>SADT:</b>	No data available.
<b>Viscosity, dynamic:</b>	No data available.
<b>Viscosity, kinematic:</b>	> 20.5 mm <sup>2</sup> /s (40 °C)
<b>VOC:</b>	; No data available.

**10. Stability and reactivity**

<b>Reactivity:</b>	No dangerous reaction if used as recommended.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Keep away from sources of ignition - No smoking.
<b>Incompatible Materials:</b>	Moisture.
<b>Hazardous Decomposition Products:</b>	Reacts with water/moisture liberating Methyl ethyl ketoxime (MEKO) = 2-Butanone-oxime. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

**11. Toxicological information**

**Information on likely routes of exposure**

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**Ingestion:** No data available.  
**Inhalation:** No data available.  
**Skin Contact:** No data available.  
**Eye contact:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Ingestion:** No data available.  
**Inhalation:** No data available.  
**Skin Contact:** No data available.  
**Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s):**

Aminoethyl aminopropyl trimethoxy silane LD 50 (Rat): 2,995 mg/kg

Octamethylcyclotetrasiloxane LD 50 (Rat): 4,800 mg/kg

**Dermal**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s):**

Aminoethyl aminopropyl trimethoxy silane LD 50 (Rabbit): > 2,000 mg/kg

Octamethylcyclotetrasiloxane LD 50 (Rat): > 2,400 mg/kg

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s):**

Octamethylcyclotetrasiloxane LC50 (Rat): 36 mg/l

**Repeated dose toxicity**

**Product:** No data available.

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**Specified substance(s):**  
Aminoethyl aminopropyl trimethoxy silane      NOAEL (Rat, Oral, 28 d):  $\geq 500$  mg/kg

**Skin Corrosion/Irritation**  
**Product:**      No data available.

**Serious Eye Damage/Eye Irritation**  
**Product:**      No data available.

**Respiratory or Skin Sensitization**  
**Product:**      Causes sensitization on guinea-pigs. No human information is available.

**Carcinogenicity**  
**Product:**      No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**  
**Product:**      No data available.

**Specified substance(s):**  
Octamethylcyclotetrasiloxane      Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)): negative (not mutagenic)  
Mouse Lymphoma Assay (OECD Guideline 476): negative (not mutagenic)

**In vivo**  
**Product:**      No data available.

**Specified substance(s):**  
Octamethylcyclotetrasiloxane      Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)) Inhalation (Rat, male and female): negative

**Reproductive toxicity**  
**Product:**      No data available.

**Specific Target Organ Toxicity - Single Exposure**  
**Product:**      No data available.

**Specific Target Organ Toxicity - Repeated Exposure**  
**Product:**      No data available.

**Target Organs**



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Specific Target Organ Toxicity - Repeated Exposure: Cardiovascular system

**Aspiration Hazard**

**Product:** No data available.

**Other effects:**

Nasal epithelial tissue atrophy occurred at all dose levels tested, but was reversible at lower doses. SUPPLIER RECOMMENDED WORKPLACE GUIDELINE: 3 ppm 8-hr TWA, Short term exposure limit (STEL) <10 ppm  
 Toxicity of methyl ethyl ketoxime (MEKO) liberated when the material is in touch with water or moisture in the air, or the material is curing. SKIN CONTACT: May cause mild skin irritation. EYE CONTACT: Causes severe eye irritation may damage tissue. ACUTE ORAL TOXICITY: LD50 = 4ml/kg (rat). ACUTE INHALATION: 4-hr LC50 = > 4.8mg/l (rat). INHALATION TOXICITY: Narcotic(central nervous system)effects in high concentrations.Effects were reversible when exposure was ended.Prolonged overexposure causes adverse effects on the blood. SKIN SENSITIVITY: Positive (guinea pig).No allergic reaction to humans.CARCINOGENICITY: A lifetime (about two years) inhalation study in male and female mice and rats revealed that liver tumors were observed in male mice and rats at a high exposure level of 375 ppm. OTHER LONG-TERM EXPOSURE TESTS: Atrophy of nasal epithelium cells was observed in both mice and rats at all concentrations.The effect appeared reversible at lower concentrations. PERMISSIBLE CONCENTRATION: TWA 3 ppm (supplier's recommended value), Keep well ventilated (STEL 10 ppm or less). The WEEL recommended value of AIHA is TWA 10 ppm.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Aminoethyl aminopropyl trimethoxy silane LC50 (Lepomis macrochirus): > 100 mg/l

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Aminoethyl aminopropyl trimethoxy silane EC50 (Daphnia magna, 48 h): 87.4 mg/l

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

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**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Specified substance(s):**

Aminoethyl aminopropyl trimethoxy silane EC50 (Algae (*Pseudokirchneriella subcapitata*), 96 h): 8.8 mg/l  
 NOEC (Algae (*Pseudokirchneriella subcapitata*)): 3.1 mg/l

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane 3.7 % (29 d, 310 Ready Biodegradability - CO<sub>2</sub> in Sealed Vessels (Headspace Test)) Not readily biodegradable.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane Fathead Minnow, Bioconcentration Factor (BCF): 12.40

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

methyl tris-(methyl ethyl ketoximo) silane No data available.  
 butanone oxime vinylsilane No data available.  
 Aminoethyl aminopropyl trimethoxy silane No data available.  
 Octamethylcyclotetrasiloxane No data available.

**Other adverse effects:** No data available.

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**13. Disposal considerations**

**Disposal instructions:** Disposal should be made in accordance with federal, state and local regulations.

**Contaminated Packaging:** Dispose of as unused product.

**14. Transport information**

**DOT**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

**Special precautions for user:** This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**  
None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**  
Serious eye damage or eye irritation  
Respiratory or Skin Sensitization  
Reproductive toxicity  
Specific target organ toxicity (single or repeated exposure)

**SARA 302 Extremely Hazardous Substance**  
None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**  
None present or none present in regulated quantities.

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**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
methyl tris-(methyl ethyl ketoximo) silane	10000 lbs
butanone oxime vinylsilane	10000 lbs
Aminoethyl aminopropyl trimethoxy silane	10000 lbs
Octamethylcyclotetrasiloxane	10000 lbs

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**



**WARNING**

Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**US. New Jersey Worker and Community Right-to-Know Act**

Chemical Identity

Siloxanes and Silicones, di-Me hydroxy terminated  
Treated Fumed Silica  
Polydimethylsiloxane  
methyl tris-(methyl ethyl ketoximo) silane  
butanone oxime vinylsilane  
Aminoethyl aminopropyl trimethoxy silane  
Octamethylcyclotetrasiloxane

**US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

No ingredient regulated by PA Right-to-Know Law present.

**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

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**Inventory Status:**

Australia AICS:	y (positive listing)	Remarks: None.
Canada DSL Inventory List:	Q (quantity restricted)	Remarks: None.
EU EINECS List:	y (positive listing)	Remarks: None.
Japan (ENCS) List:	y (positive listing)	Remarks: None.
China Inventory of Existing Chemical Substances:	y (positive listing)	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	y (positive listing)	Remarks: None.
Canada NDSL Inventory:	n (Negative listing)	Remarks: None.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	q (quantity restricted)	Remarks: None.
New Zealand Inventory of Chemicals:	y (positive listing)	Remarks: None.
Taiwan Chemical Substance Inventory:	y (positive listing)	Remarks: None.
REACH:	If purchased from Momentive Performance Materials GmbH in Leverkusen, Germany, all substances in this product have been registered by Momentive Performance Materials GmbH or upstream in our supply chain or are exempt from registration under Regulation (EC) No 1907/2006 (REACH). For polymers, this includes the constituent monomers and other reactants.	Remarks: None.

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>	*	2
<b>Flammability</b>	1	
<b>Physical Hazards</b>	1	
<b>PERSONAL PROTECTION</b>		

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**Issue Date:** 10/18/2019

**Revision Date:** No data available.

**Version #:** 2.0

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**Further Information:** "Wear eye, hand and respiratory protection when in handling."

**Disclaimer:**

**Notice to reader**

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives.

"Wear eye, hand and respiratory protection when in handling."  
Keep out of the reach of children.

**Further Information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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