

TSE3051

# SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

## 1. Identification

**Product identifier:** TSE3051

**Other means of identification**

**Synonyms:** 1 PART ADDITION CURE GEL

**Recommended use and restriction on use**

**Recommended use:** Silicone Potting compound

**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**

Toxic to reproduction

Category 2

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Warning

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**Hazard Statement:** H361f; Suspected of damaging fertility.

**Precautionary Statements**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

**Response:** IF exposed or concerned: Get medical advice/attention.

**Storage:** Store locked up.

**Disposal:** Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

**Hazard(s) not otherwise classified (HNOC):** None.

**Substance(s) formed under the conditions of use:** Reacts with water or alcohol in presence of acids or bases to release hydrogen (flammable gas).

**3. Composition/information on ingredients**

**Mixtures**

Chemical Identity	CAS number	Content in percent (%)*	Notes
Octamethylcyclotetrasiloxane	556-67-2	0.1 - <1%	No data available.

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

**4. First-aid measures**

**Ingestion:** Do not induce vomiting. Drink plenty of water. Get medical attention immediately.

**Inhalation:** If inhaled, move victim to fresh air and seek medical attention.

**Skin Contact:** Wash with soap and water. Get medical attention if symptoms occur.

**Eye contact:** Rinse the eye with water immediately. If eye irritation persists: Get medical advice/attention.

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

**Symptoms:** No data available.

**Hazards:** No data available.

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

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**Treatment:** There is no specific antidote. Treatment is symptomatic and supportive.

**5. Fire-fighting measures**

**General Fire Hazards:** Use standard firefighting procedures and consider the hazards of other involved materials. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**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:** In case of fire, carbon monoxide and carbon dioxide may be formed. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

**Special protective equipment and precautions for fire-fighters**

**Special fire-fighting procedures:** Cool fire-endangered containers with water.

**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:** Keep container closed. Use only in well-ventilated areas. Avoid contact with skin and eyes. Keep out of reach of children. Remove contact lenses, if present and easy to do. Continue rinsing. See Section 8 of the SDS for Personal Protective Equipment.

**Methods and material for containment and cleaning up:** Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

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

**7. Handling and storage**

**Precautions for safe handling:** Sensitivity to static discharge is not expected. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Wear appropriate personal protective equipment. Protect from moisture.

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**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

None of the components have assigned exposure limits.

**Appropriate Engineering Controls**

Eye wash facilities and emergency shower must be available when handling this product.

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

**General information:**

Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

**Eye/face protection:**

Safety glasses with side shields

**Skin Protection**

**Hand Protection:**

Use chemical-resistant, impervious gloves.

**Other:**

Wear suitable protective clothing and eye/face protection.

**Respiratory Protection:**

If inhalation exposure is expected, 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:**

Ensure adequate ventilation, especially in confined areas. Wash hands after handling. When using do not eat, drink or smoke.

**9. Physical and chemical properties**

**Appearance**

**Physical state:**

liquid

**Form:**

liquid

**Color:**

Colorless

**Odor:**

Odorless

**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:**

ca. 340 °C (Closed Cup)

**Evaporation rate:**

No data available.

**Flammability (solid, gas):**

No data available.

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**Upper/lower limit on flammability or explosive limits**

Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Heat of combustion:	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Density:	0.975 g/cm <sup>3</sup> (23 °C)
Relative density:	0.97
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	immiscible
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
SADT:	No data available.
Viscosity, dynamic:	No data available.
Viscosity, kinematic:	No data available.
Other information	
Minimum ignition temperature:	450.00 °C
VOC:	; No data available.

**10. Stability and reactivity**

Reactivity:	No dangerous reaction if used as recommended.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Hazardous polymerization does not occur.
Conditions to avoid:	Avoid contact with acids and oxidizing substances.
Incompatible Materials:	Strong Acids, Strong Bases
Hazardous Decomposition Products:	Carbon dioxide Silicon dioxide. 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**

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**Information on likely routes of exposure**

**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):**

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

**Dermal**

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

**Specified substance(s):**

Octamethylcyclotetrasiloxane LD 50 (Rat): > 2,375 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.

**Skin Corrosion/Irritation**

**Product:** No data available.

**Specified substance(s):**

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Octamethylcyclotetrasiloxane      OECD Test Guideline 404 (Rabbit): Non irritating

**Serious Eye Damage/Eye Irritation**

**Product:**      No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane      OECD-Guideline 405 (Acute Eye Irritation/Corrosion) (Rabbit): Non irritating

**Respiratory or Skin Sensitization**

**Product:**      No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane      Maximisation Test, OECD-Guideline 406 (Skin Sensitisation) (Guinea Pig):  
Not sensitizing

**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), as amended:**

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 475) Inhalation (Rat, male and female):  
negative  
Dominant lethal assay (OECD 478) Oral (Rat, male and female): negative

**Reproductive toxicity**

**Product:**      No data available.

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**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane

Octamethylcyclotetrasiloxane (D4) Ingestion: Rodents given large doses via oral gavage of Octamethylcyclotetrasiloxane (1600mg/kg/day, 14 days), developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size). Inhalation: In inhalation studies, laboratory rodents exposed to Octamethylcyclotetrasiloxane (300 ppm five days/week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. This response in rats, which does not affect the animal's health, is well-documented and widely recognized. It is related to an increase of liver enzymes that metabolize and eliminate a material from the body. The increased liver weight reverses even while the D4 exposure continues. The finding is not adverse, but is considered a natural adaptive change in rats, and does not represent a hazard to humans. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents. Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation), with D4. Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found. A two-year, combined chronic/carcinogenicity study, during which rats were exposed to D4 by inhalation, data showed a statistically significant increase in a benign uterine tumor in female rats exposed at the highest level--a level much higher than the low levels that consumers or workers may encounter. An expert panel of independent scientists who have reviewed the results of this research concur that the finding seen in the two-year study occurred through a biological pathway that is specific to the rat and is not relevant to humans. Therefore, this observed effect does not indicate a potential health hazard to humans. In developmental toxicity studies, rats and rabbits were exposed to D4 at concentrations up to 700 ppm and 500 ppm, respectively. No teratogenic effects (birth defects) were observed in either study.



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**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane No toxicity at the limit of solubility ; LC50 (Oncorhynchus mykiss, 96 h): > 0.022 mg/l

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane No toxicity at the limit of solubility ; EC50 (Daphnia magna, 48 h): > 0.015 mg/l

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane No toxicity at the limit of solubility ; NOEC (Oncorhynchus mykiss, 93 d): >= 0.0044 mg/l

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane No toxicity at the limit of solubility ; NOEC (Daphnia magna, 21 d): > 0.015 mg/l

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane No toxicity at the limit of solubility ; ErC50 (Selenastrum capricornutum, 96 h): > 0.022 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**

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**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane Bioconcentration Factor (BCF): 12,400

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

**Product:** No data available.

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

**Known or predicted distribution to environmental compartments**

Octamethylcyclotetrasiloxane No data available.

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

**13. Disposal considerations**

**General information:** The generation of waste should be avoided or minimized wherever possible. See Section 8 for information on appropriate personal protective equipment. Do not discharge into drains, water courses or onto the ground.

**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.

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**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.

**US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)**

None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended**

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**

Reproductive toxicity

**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.

**SARA 311/312 Hazardous Chemical**

Chemical Identity                      Threshold Planning Quantity

**US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (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**

No ingredient requiring a warning under CA Prop 65.

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

**Chemical Identity**

Siloxanes and Silicones, di-Me, mono(vinyl group) -terminated

Methylhydrogenpolysiloxane

Triallyl isocyanurate

Cyclotetrasiloxane, 2,4,6,8-tetraethenyl-2,4,6,8-tetramethyl-  
3,5-DIMETHYL-1-HEXYN-3-OL

**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.
EU EINECS List:	y (positive listing)	Remarks: None.
Japan (ENCS) List:	y (positive listing)	Remarks: None.
China Inv. Existing Chemical Substances:	y (positive listing)	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	y (positive listing)	Remarks: None.
Canada DSL Inventory List:	y (positive listing)	Remarks: None.
Canada NDSL Inventory:	n (negative listing)	Remarks: None.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	y (positive listing)	Remarks: Commercial Status: Active
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>	*	0
<b>Flammability</b>		1
<b>Physical Hazards</b>		0
<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:** 03/02/2023  
**Revision Date:** No data available.  
**Version #:** 3.3  
**Further Information:** No data available.

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**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. 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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