

TSE3251

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** TSE3251

**Other means of identification**

**Synonyms:** Silicone rubber coating

**Recommended use and restriction on use**

**Recommended use:** Coating of electronic parts

**Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information** : Momentive Performance Materials LLC  
260 Hudson River Road  
Waterford NY 12188

**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**

Not classified

**Label Elements**

**Hazard Symbol:** No symbol

**Signal Word:** No signal word.

**Hazard Statement:** Not applicable

**Precautionary Statements** Not applicable

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

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**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
(1) TITANIUM DIOXIDE	13463-67-7	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.

(1) The respirable particle(s) listed above are inextricably bound within the polymer matrix, and therefore does not present an inhalation hazard during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

**4. First-aid measures**

**Ingestion:** If swallowed, do NOT induce vomiting. Give a glass of water. Do not give victim anything to drink if he is unconscious. Get medical attention if any discomfort continues.

**Inhalation:** If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

**Skin Contact:** Wash with soap and water.

**Eye contact:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

**Symptoms:** No data available.

**Hazards:** No data available.

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

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

**5. Fire-fighting measures**

**General Fire Hazards:** No data available.

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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:** In case of fire, carbon monoxide and carbon dioxide may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Move container from fire area if it can be done without risk. Use water spray to keep fire-exposed containers cool.

**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. Avoid contact with skin and eyes. Keep out of reach of children. May generate formaldehyde at temperatures greater than 150 C(300 F). 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. Wear proper protective equipment as specified in the protective equipment section.

**7. Handling and storage**

**Precautions for safe handling:** Sensitivity to static discharge is not expected. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Keep away from food, drink and animal feeding stuffs.

**Conditions for safe storage, including any incompatibilities:** Store in tightly closed original container in a dry and cool place.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
(1) TITANIUM DIOXIDE	TWA	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2015)
(1) TITANIUM DIOXIDE -	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air

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Total dust.			Contaminants (29 CFR 1910.1000), as amended (02 2006)
	TWA	10 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	10 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
(1) TITANIUM DIOXIDE - Particulate.	ST ESL	50 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (11 2016)
	AN ESL	5 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (11 2016)
(1) TITANIUM DIOXIDE - Total dust.	TWA PEL	10 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (01 2015)
(1) TITANIUM DIOXIDE - Respirable fraction.	TWA PEL	5 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (01 2015)
	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
(1) TITANIUM DIOXIDE - Total dust.	TWA	15 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
(1) TITANIUM DIOXIDE - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
(1) TITANIUM DIOXIDE - Total dust.	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
(1) TITANIUM DIOXIDE	IDLH	5,000 mg/m <sup>3</sup>	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)

This product contains one or more substances with an occupational exposure limit. However, the respirable particle(s) of this/these substance(s) are inextricably bound within the polymer matrix. Therefore, we do not expect an exposure to this/these substance(s) during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

**Appropriate Engineering Controls**

Eyewash bottle with clean water.

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

**General information:** No data available.

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

**Skin Protection**

**Hand Protection:** No data available.

**Other:** Wear suitable protective clothing, gloves 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).

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**Hygiene measures:**

Observe good industrial hygiene practices. When using do not eat, drink or smoke. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Avoid contact with eyes, skin, and clothing.

**9. Physical and chemical properties**

**Appearance**

**Physical state:** liquid  
**Form:** liquid  
**Color:** White

**Odor:** Odorless

**Odor threshold:** No data available.

**pH:** Not applicable

**Melting point/freezing point:** No data available.

**Initial boiling point and boiling range:** No data available.

**Flash Point:** ca. 330 °C

**Evaporation rate:** No data available.

**Flammability (solid, gas):** No data available.

**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:** Not applicable

**Vapor density:** No data available.

**Density:** No data available.

**Relative density:** No data available.

**Solubility(ies)**

**Solubility in water:** Insoluble

**Solubility (other):** No data available.

**Partition coefficient (n-octanol/water) Log**

**Pow:**

**Auto-ignition temperature:** No data available.

**Decomposition temperature:** No decomposition if stored and applied as directed.

**SADT:** No data available.

**Viscosity, dynamic:** 8,200 mPa·s (23 °C)

**Viscosity, kinematic:** No data available.

**VOC:** No data available.

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**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 moisture. Avoid exposure to high temperatures or direct sunlight.
<b>Incompatible Materials:</b>	Oxidizing agents. Strong Acids Alkalies.
<b>Hazardous Decomposition Products:</b>	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**

**Information on likely routes of exposure**

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

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

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	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):**

(1) TITANIUM DIOXIDE LD 50 (Rat): > 10,000 mg/kg

**Dermal**

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

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**Specified substance(s):**

(1) TITANIUM DIOXIDE LD 50 (Rabbit): > 10,000 mg/kg

**Inhalation**

**Product:**

Not classified for acute toxicity based on available data.

**Specified substance(s):**

(1) TITANIUM DIOXIDE LC50 (Rat): > 6.8 mg/l

**Repeated dose toxicity**

**Product:**

No data available.

**Skin Corrosion/Irritation**

**Product:**

No data available.

**Serious Eye Damage/Eye Irritation**

**Product:**

No data available.

**Specified substance(s):**

(1) TITANIUM DIOXIDE No eye irritation

**Respiratory or Skin Sensitization**

**Product:**

No data 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), as amended:**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:**

No data available.

**In vivo**

**Product:**

No data available.

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**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.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

(1) TITANIUM DIOXIDE LC0 (Leuciscus idus, 48 h): > 1,000 mg/l

**Aquatic Invertebrates**

**Product:** No data available.

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**Specified substance(s):**

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(1) TITANIUM DIOXIDE 0 %

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

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

**Product:** No data available.

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

**Known or predicted distribution to environmental compartments**

(1) TITANIUM DIOXIDE 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.

**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.

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**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**

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
polyvinylsiloxane	No OSHA Hazards
Polyalkylalkenylsiloxane	Toxic by skin absorption
Silica	No OSHA Hazards
Methylhydrogenpolysiloxane	Skin sensitizer; Respiratory sensitizer
CYCLOSILOXANE ESTER	No OSHA Hazards

**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**

Not classified

**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**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
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**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

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.

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**US State Regulations**

**US. California Proposition 65**



**WARNING:** This product can expose you to chemicals including Methanol, which is [are] known to the State of California to cause birth defects or other reproductive harm.

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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

**Chemical Identity**

polyvinylsiloxane

Polyalkylalkenylsiloxane

Methylhydrogenpolysiloxane

CYCLOSILOXANE ESTER

Silica;

**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:	n (negative listing)	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 DSL Inventory List:	q (quantity restricted)	Remarks: None.
Canada NDSL Inventory:	n (negative listing)	Remarks: None.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	y (positive listing)	Remarks: On TSCA Inventory
Taiwan. Taiwan inventory (CSNN):	y (positive listing)	Remarks: None.

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

**HMIS Hazard ID**

<b>Health</b>	<input type="text" value="0"/>
<b>Flammability</b>	<input type="text" value="1"/>
<b>Physical Hazards</b>	<input type="text" value="1"/>
<b>PERSONAL PROTECTION</b>	<input type="text"/>

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

**Issue Date:** 05/03/2021

**Revision Date:** No data available.

**Version #:** 1.5

**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 safehandling, 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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