

TSE 322

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** TSE 322

**Other means of identification**

**Synonyms:** ONE COMPONENT HEAT CURED ADHESIVE

**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

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

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**3. Composition/information on ingredients**

**Mixtures**

Chemical Identity	CAS number	Content in percent (%)*	Notes
(1) QUARTZ	14808-60-7	20 - <50%	# This substance has workplace exposure limit(s).
polyvinylsiloxane	68083-19-2	45.8056%	# This substance has workplace exposure limit(s).
(1) Calcium Carbonate	471-34-1	1 - <5%	# This substance has workplace exposure limit(s).
Polyalkylalkenylsiloxane	68584-83-8	15.2603%	No data available.

\* 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**

<b>Ingestion:</b>	Do not induce vomiting. Drink plenty of water. Get medical attention immediately.
<b>Inhalation:</b>	If inhaled, move victim to fresh air and seek medical attention.
<b>Skin Contact:</b>	Wash with soap and water. Get medical attention if symptoms occur.
<b>Eye contact:</b>	Rinse the eye with water immediately. If eye irritation persists: Get medical advice/attention.

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

<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.

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

<b>Treatment:</b>	There is no specific antidote. Treatment is symptomatic and supportive.
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**5. Fire-fighting measures**

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**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 firefighters**

**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.

**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.

**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed in a cool, well-ventilated place. Use original container or packaging of similar material of construction

**8. Exposure controls/personal protection**

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**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
(1) QUARTZ - Respirable fraction.	TWA	0.025 mg/m3	US. ACGIH Threshold Limit Values (03 2015)
(1) QUARTZ - Respirable dust.	REL	0.05 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
(1) QUARTZ - Respirable dust.	TWA	0.05 mg/m3	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
	OSHA_ACT	0.025 mg/m3	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
(1) QUARTZ - Respirable dust.	PEL	0.05 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
	TWA	0.1 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	0.1 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
(1) QUARTZ - Particulate.	ST ESL	14 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	0.27 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
(1) QUARTZ - Respirable dust.	TWA PEL	0.05 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (10 2016)
(1) QUARTZ - Respirable.	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
(1) QUARTZ	IDLH	50 mg/m3	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values (10 2017)
(1) Calcium Carbonate - Total	REL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
(1) Calcium Carbonate - Respirable.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
(1) Calcium Carbonate - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
(1) Calcium Carbonate - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
(1) Calcium Carbonate - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
(1) Calcium Carbonate - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
(1) Calcium Carbonate - Total dust.	TWA	15 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
(1) Calcium Carbonate - Respirable fraction.	TWA	5 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)

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**

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

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

<b>General information:</b>	Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.
<b>Eye/face protection:</b>	Safety glasses with side shields
<b>Skin Protection</b>	
<b>Hand Protection:</b>	Chemical resistant gloves
<b>Other:</b>	Wear suitable protective clothing and eye/face protection.
<b>Respiratory Protection:</b>	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).
<b>Hygiene measures:</b>	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**

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Blue
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	300 °C (Closed Cup)
<b>Evaporation rate:</b>	No data available.
<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>	No data available.

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Vapor density:	> 1
Density:	ca. 1.27 g/cm <sup>3</sup>
Relative density:	1.27
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	ca. 450 °C
Decomposition temperature:	No data available.
SADT:	No data available.
Viscosity, dynamic:	150,000 mPa·s
Viscosity, kinematic:	No data available.
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 polymerisation 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

#### 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.

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**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.

**Dermal**

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

**Inhalation**

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

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** No data available.

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**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:**  
(1) QUARTZ Known To Be Human Carcinogen.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

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**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**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.

<b>12. Ecological information</b>
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**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**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.



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**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**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) QUARTZ No data available.  
polyvinylsiloxane No data available.  
(1) Calcium Carbonate No data available.  
Polyalkylalkenylsiloxane 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.

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**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**

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>
polyvinylsiloxane	10000 lbs
(1) QUARTZ	10000 lbs
Polyalkylalkenylsiloxane	10000 lbs
(1) Calcium Carbonate	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**

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**

polyvinylsiloxane

(1) QUARTZ

Polyalkylalkenylsiloxane

Methylhydrogenpolysiloxane

Cyclotetrasiloxane-2-propanoic acid, .alpha.,2,4,6,6,8-hexamethyl-, 3-(trimethoxysilyl) propyl ester

**US. Massachusetts RTK - Substance List**

**Chemical Identity**

(1) QUARTZ

**US. Pennsylvania RTK - Hazardous Substances**

**Chemical Identity**

(1) QUARTZ

(1) Calcium Carbonate

**US. Rhode Island RTK**

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

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**Inventory Status:**

Australia AICS:	q (quantity restricted)	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:	y (positive listing)	Remarks: None.
New Zealand Inventory of Chemicals:	y (positive listing)	Remarks: None.
Taiwan. Taiwan inventory (CSNN):	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>	<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:** 01/24/2019

**Revision Date:** No data available.

**Version #:** 2.0

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**Further Information:** No data available.

**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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