

TSE 322

SAFETY DATA SHEET

1. Identification of the hazardous chemical and of the supplier

Product identifier: TSE 322

Recommended use of the chemical and restrictions on use

Recommended use: Coating of electronic parts

Recommended restrictions: Not known.

Details of principal suppliers

Manufacturer/Importer/Distributor Information : Momentive Performance Materials (Thailand) Limited
1/2 Moo 4, Asia Industrial Estate, Rayong, 21130
Thailand

Contact person : commercial.services@momentive.com

Telephone : +66-3899 7899

Telefax : +66-3899 7888

Emergency telephone number : 001 800 120 666 751 / +65 3158 1074

Responsible Department : Product Stewardship & Compliance

2. Hazard(s) identification

GHS classification of substance or mixture, and national or regional information :
Not classified

GHS label elements

Hazard symbol(s): No symbol

Signal Word: none

Hazard Statement(s): Not applicable

Precautionary statement(s):

Prevention: Not applicable

Response: Not applicable

Storage: Not applicable

Disposal: Not applicable

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

3. Composition and information of the ingredients of the hazardous chemical

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Chemical nature: Polydimethylsiloxane containing vinyl groups, with platinum catalyst, fillers, crosslinker, an inhibitor and pigment(s).

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
QUARTZ	14808-60-7	>=20 - <30%
Cyclotetrasiloxane-2-propanoic acid, .alpha.,2,4,6,6,8-hexamethyl-, 3-(trimethoxysilyl) propyl ester	113684-56-3	>=1 - <10%
Calcium Carbonate	471-34-1	>=1 - <10%

* 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

Description of necessary first-aid measures

Inhalation: Move to fresh air. Get medical attention if symptoms persist.

Skin Contact: After contact with skin, remove product mechanically. Wash area with soap and water.

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

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

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: Remove sources of combustibles. Extinguish the fire using fire-fighting media listed above. Cool surrounding tanks, buildings and so on by spraying with water to prevent the fire extension.
 The fire fighting should be done from the windward side, with suitable respiratory protective device, if necessary.

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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Foam. Carbon dioxide

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 action for fire fighters

Special fire fighting procedures: Take precautionary measures against static discharges. All equipment used when handling the product must be grounded.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Keep upwind.

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

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.

7. Handling and storage

Precautions to ensure safe handling: Wear suitable protective clothing, gloves and eye/face protection. Protect from moisture. Avoid contact with organic compounds containing nitrogen, sulfur, phosphorus, tin and lead, soldering flux, polyvinyl chloride, polyurethane as it may lead to incomplete curing.

Conditions for safe storage, including any incompatibilities: Store in tightly closed original container at a temperature above 0°C. Store at 10°C or less, with the container tightly closed.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
QUARTZ Respirable fraction.	Time Weighted Average (TWA):	0.1 mg/m ³	Malaysia. OELs. (Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations) 03 2000

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Calcium Carbonate	Time Weighted Average (TWA):	10 mg/m3	Malaysia. OELs. (Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations)03 2000
(1) QUARTZ - Respirable fraction.	TWA	0.025 mg/m3	US. ACGIH Threshold Limit Values (03 2015)

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.

Biological Limit Values

None of the components have assigned exposure limits.

Appropriate Engineering Controls: Eyewash bottle with clean water.

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: Rubber or plastics gloves Rubber or plastics gloves

Other: Chemical resistant clothing Wear rubber boots.

Respiratory Protection: Not applied

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: Blue
Odor: Odorless
Odor threshold: No data available.
pH: No data available.
Melting point/freezing point: Not applicable
Initial boiling point and boiling range: Not applied

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Flash Point:	300 °C (Closed Cup)
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.
Vapor pressure:	No data available.
Vapor density:	No data available.
Density:	1.27 g/cm ³ (25 °C)
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	450 °C
Decomposition temperature:	No decomposition if stored and applied as directed.
SADT:	No data available.
Viscosity, dynamic:	150,000 mPa·s
Viscosity, kinematic:	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:	The catalysis of strong acids or bases cause polymerization or decomposition. The cure is promoted at high temperature.
Hazardous Decomposition Products:	Carbon oxides Oxides of silicon.

11. Toxicological information

General information: Experience has shown, that the above mentioned product can be used without any danger to health, as long as the usual conditions of industrial hygiene are observed.

Information on likely routes of exposure

Inhalation: No data available.

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Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Symptoms

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: No data available.

Dermal

Product: No data available.

Inhalation

Product: No data available.

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.

ACGIH Sensitization

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

QUARTZ Overall evaluation: 1. Carcinogenic to humans.

ACGIH Carcinogen List:

(1) QUARTZ Group A2: Suspected human carcinogen.

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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.

12. Ecological information

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.

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

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Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

QUARTZ No data available.

Cyclotetrasiloxane-2- No data available.

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

Calcium Carbonate No data available.

Other adverse effects: No data available.

13. Disposal information

General information: Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment.

Disposal methods

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Can be incinerated when in compliance with local regulations. The generation of waste should be avoided or minimized wherever possible. The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

Contaminated Packaging: Dispose of as unused product.

14. Transport information

ADR

Not regulated.

IATA

Not regulated.

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IMDG

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.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

15. Regulatory information

Malaysia. Medical Surveillance Chemicals, Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health): Schedule 2

Not Regulated

Malaysia. Prohibited Use of Substances [Occupational Safety and Health (Prohibition of Use of Substance) Order]

Not Regulated

Malaysia. Controlled Precursors Subject to Conditional Exports (Customs (Prohibition of Exports) Order 2012, Second Schedule

Not Regulated

Malaysia. Controlled Precursors Subject to Conditional Imports (Customs (Prohibition of Imports) Order 2012, Part I of Second Schedule)

Not Regulated

Malaysia. CWC. Chemical Weapons Convention Act 2005, (Schedules 1-3)

Not Regulated

Malaysia. Ozone Depleting Substances (ODS) (Environmental Quality (Prohibition on the Use of CFC and Other Gases as Propellants and Blowing Agents) Order 1993)

Not Regulated

Malaysia. Lists of Halon Management (Environmental Quality (Halon Management) Regulation 1999)

Not Regulated

Malaysia. Refrigerant Hazardous Substance (Environmental Quality (Refrigerant Management) Regulation 1999)

Not Regulated

Malaysia. Active Ingredients of Pesticide Product (Pesticide Act 1974, First Schedule), as amended

Not Regulated

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

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Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

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.

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

Issue Date:	2018/04/10
Revision Date:	No data available.
Version #:	1.0
Source of information:	No data available.
Further Information:	Wear suitable protective clothing, gloves and eye/face protection.

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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.

Further Information

Wear suitable protective clothing, gloves and eye/face protection. 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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