

TSE397-C

SAFETY DATA SHEET

1. Identification of the hazardous chemical and of the supplier

Product identifier: TSE397-C

Recommended use of the chemical and restrictions on use

Recommended use: Silicone Elastomer

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 :

Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Toxic to reproduction	Category 1B

Environmental Hazards

Chronic hazards to the aquatic environment	Category 3
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Unknown toxicity- Environment

Acute hazards to the aquatic environment	0 %
Chronic hazards to the aquatic environment	0 %

GHS label elements

Hazard symbol(s):



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Signal Word: Danger

Hazard Statement(s): Causes skin irritation.
 Causes serious eye damage.
 May damage fertility. May damage the unborn child.
 Harmful to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash face, hands and any exposed skin thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.

Response: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing. Specific treatment (see supplemental first aid instructions on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. 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.

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

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

Chemical nature: Silicone sealant

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Silica	7631-86-9	10 - <30%
CYCLOPENTYLSILAZANE-AMINOSILOXANE COPOLYMER, METHOXY TERMINATED	134759-20-9	1 - <3%
gamma-Aminopropyltriethoxysilane	919-30-2	<1%
Dibutyltin Dilaurate	77-58-7	<1%
Octamethylcyclotetrasiloxane	556-67-2	<1%

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

4. First-aid measures

Description of necessary first-aid measures

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Inhalation:	If inhaled, move victim to fresh air and seek medical attention.
Skin Contact:	Wash with soap and water.
Eye contact:	Flush thoroughly with water for at least 15 minutes. Get medical assistance.
Ingestion	Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. 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.

Most important symptoms/effects, acute and delayed

Symptoms:	Treatment is symptomatic and supportive.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	No data available.
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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:	Extinguish with foam, carbon dioxide or dry powder.
Unsuitable extinguishing media:	Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical:	No data available.
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Special protective action for fire fighters

Special fire-fighting procedures:	No data available.
Special protective equipment for fire-fighters:	No data available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Keep unprotected persons away. Provide adequate ventilation.
Environmental Precautions:	Avoid discharge into drains, water courses or onto the ground.

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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 eye, hand and respiratory protection when in handling." See Section 8 of the SDS for Personal Protective Equipment. Keep away from sources of ignition - No smoking. Ground container and transfer equipment to eliminate static electric sparks. Protect from moisture. Seal opened containers and use up as soon as possible. Alcohol released during curing. Use only in well-ventilated areas.

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

Chemical Identity	Type	Exposure Limit Values	Source
Silica Inhalable particulate.	Time Weighted Average (TWA):	10 mg/m ³	Malaysia. OELs. (Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations), as amended 03 2000
Silica Respirable particles.	Time Weighted Average (TWA):	3 mg/m ³	Malaysia. OELs. (Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations), as amended 03 2000
Dibutyltin Dilaurate	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), as amended 03 2000
(1) Silica - Respirable particles.	TWA	3 mg/m ³	US. ACGIH Threshold Limit Values, as amended (01 2021)
(1) Silica - Inhalable particles.	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values, as amended (01 2021)
Dibutyltin Dilaurate - as Sn	STEL	0.2 mg/m ³	US. ACGIH Threshold Limit Values, as amended (03 2015)
	TWA	0.1 mg/m ³	US. ACGIH Threshold Limit Values, as amended (03 2015)

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Biological Limit Values

None of the components have assigned exposure limits.

Appropriate Engineering Controls: Provide adequate general and local exhaust ventilation. Eyewash bottle with clean water.

Individual protection measures, such as personal protective equipment

General information: Use only in well-ventilated areas. Wear suitable gloves and eye/face protection.

Eye/face protection: Safety glasses with side shields

Skin Protection

Hand Protection: Chemical resistant gloves Rubber or plastics gloves

Other: Chemical resistant clothing Safety shoes

Respiratory Protection: Gas mask with organic vapor canister and dust and mist filter.

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

9. Physical and chemical properties

Appearance

Physical state: liquid
Form: liquid
Color: Colorless

Odor: Faint

Odor threshold: No data available.

pH: No data available.

Melting point/freezing point: Not applied

Initial boiling point and boiling range: Not applied

Flash Point: 198 °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.

Vapor pressure: No data available.

Vapor density: No data available.

Density: 1.04 g/cm³ (25 °C)

Relative density: No data available.

Solubility(ies)

Solubility in water: Insoluble

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Solubility (other):	No data available.
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	450 °C
Decomposition temperature:	No data available.
SADT:	No data available.
Viscosity, dynamic:	50,000 mPa·s (23 °C)
Viscosity, kinematic:	> 20.5 mm ² /s (40 °C)
Other information	
Minimum ignition temperature:	450 °C

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Keep away from heat, sparks and open flame.
Incompatible Materials:	Moisture. The catalysis of strong acids or bases cause polymerization or decomposition.
Hazardous Decomposition Products:	This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. A SDS for formaldehyde is available from Momentive.

11. Toxicological information

General information: In serious cases absorption of methanol in the body may lead to damage to the eyesight.

Information on likely routes of exposure

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

Symptoms

Inhalation:	No data available.
Skin Contact:	No data available.

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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.

Specified substance(s):

Silica LD 50 (Rat): > 15,000 mg/kg

CYCLOPENTYLSILAZA
NE-AMINOSILOXANE
COPOLYMER,
METHOXY
TERMINATED LD 50 (Rat): 4,666 mg/kg

Dibutyltin Dilaurate LD 50 (Rat): 2,071 mg/kg

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

Dermal

Product: No data available.

Specified substance(s):

Dibutyltin Dilaurate LD 50 (Rat): 750 mg/kg
LD 50 (Rat): 1,000 mg/kg
LD 50 (Rat): > 2,000 mg/kg

Octamethylcyclotetrasiloxane LD 50 (Rat): > 2,375 mg/kg

Inhalation

Product: No data available.

Specified substance(s):

Octamethylcyclotetrasiloxane LC50 (Rat, 4 h): 36 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.

Respiratory or Skin Sensitization

Product: No data available.

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ACGIH Sensitization

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

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.

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.

Specified substance(s):

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gamma-Aminopropyltriethoxysilane	EC50 (Daphnia, 48 h): > 100 mg/l
Dibutyltin Dilaurate	Fresh water EC50 (Daphnia magna, 48 h): < 0.463 mg/l
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):

Silica	LC0 (Brachydanio rerio, 4 d): 5,000 mg/l
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
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Toxicity to Aquatic Plants

Product: No data available.

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.

Specified substance(s):

gamma-Aminopropyltriethoxysilane	Log Kow: -0.3 (calculated)
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Mobility

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Silica No data available.

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CYCLOPENTYLSILAZANE -AMINOSILOXANE COPOLYMER, METHOXY TERMINATED gamma- Aminopropyltriethoxysilane	No data available.
Dibutyltin Dilaurate	No data available.
Octamethylcyclotetrasiloxane	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: Can be incinerated when in compliance with local regulations. This material is developed and manufactured for industrial applications only.

Contaminated Packaging: Dispose of as unused product.

14. Transport information

ADR

Not regulated.

IATA

Not regulated.

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. Protect from moisture. Keep away from food, foodstuff, acids and bases. keep away from odour sensitive materials

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

Not applicable

15. Regulatory information

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

Silica

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 2017, Second Schedule, as amended)

Not Regulated

Malaysia. Controlled Precursors Subject to Conditional Imports (Customs (Prohibition of Imports) Order, 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), as amended

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

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

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Inventory Status:

Canada DSL Inventory List:	q (quantity restricted)	Remarks: None.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory	Remarks: None.
US TSCA Inventory:	On or in compliance with the inventory	Remarks: Commercial Status: Active
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory	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.
Australia Industrial Chem. Act (AIC):	Not in compliance with the inventory.	Remarks: None.
Canada NDSL Inventory:	Not in compliance with the inventory.	Remarks: None.
Japan (ENCS) List:	On or in compliance with the inventory	Remarks: None.
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory	Remarks: None.
Philippines PICCS:	On or in compliance with the inventory	Remarks: None.

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

Issue Date:	2022/09/04
Revision Date:	No data available.No data available.
Version #:	1.2
Source of information:	No data available.
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.

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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