

TSE3991-B

# SAFETY DATA SHEET

## 1 Product and company identification

Name of chemical (Product name): TSE3991-B

**Manufacturer** : Momentive Performance Materials Japan LLC  
 Akasaka Park Building  
 5-2-20 Akasaka, Minato-ku  
 Tokyo Japan

**Distributor Information** : DC Products Pty Limited  
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## 2 Hazard(s) identification

GHS classification:

<b>Physical Hazards</b>	Explosives	Classification not possible
	Flammable gas	Not applicable
	Chemically unstable gases	Not applicable
	Aerosols	Not applicable
	Oxidizing gases	Not applicable
	Gases under pressure	Not applicable
	Flammable liquids	Not classified
	Flammable solid	Not applicable
	Self-reactive substances and mixtures	Classification not possible
	Pyrophoric liquids	Classification not possible
	Pyrophoric solids	Not applicable
	Self-heating substances and mixtures	Classification not possible
	Substances and mixtures, which in contact with water, emit flammable gases	Classification not possible
	Oxidizing liquids	Classification not possible
	Oxidizing solids	Not applicable
	Organic peroxides	Classification not possible
	Corrosive to metal	Classification not possible
<b>Health Hazards</b>	Acute toxicity (Oral)	Not classified
	Acute toxicity (Dermal)	Not classified
	Acute toxicity (Inhalation - gas)	Not applicable
	Acute toxicity (Inhalation - vapor)	Not classified
	Acute toxicity (Inhalation - dust and mist)	Not classified
	Skin Corrosion/Irritation	Classification not possible
	Serious Eye Damage/Eye Irritation	Category 2A
Respiratory sensitizer	Classification not possible	
Skin sensitizer	Classification not possible	

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	Germ Cell Mutagenicity	Classification not possible
	Carcinogenicity	Classification not possible
	Toxic to reproduction	Classification not possible
	Specific Target Organ Toxicity - Single Exposure	Not classified
	Specific Target Organ Toxicity - Repeated Exposure	Not classified
	Aspiration Hazard	Classification not possible
<b>Environmental Hazards</b>	Acute hazards to the aquatic environment	Not classified
	Chronic hazards to the aquatic environment	Not classified
	Hazardous to the ozone layer	Not classified

**GHS label elements**

**Symbol(s):**



**Signal Word:** Warning

**Hazard Statement(s):** Causes serious eye irritation.

**Precautionary Statements**

**Prevention:** Wash hands thoroughly after handling. Wear eye protection/face protection.

**Response :** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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

**Main symptoms and emergency overview**

**Main symptoms:** No data available.

**Emergency Overview :** No data available.

**3 Composition/information on ingredients**

**Chemical nature:** Silicone sealant

**Mixtures**

Chemical Identity	CAS number	Concentration*
CYCLOPENT YLSILAZANE	134759-20-9	1.0 - 10%

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-AMINOSILOXANE COPOLYMER, METHOXY TERMINATED		
gamma- Aminopropyltriethoxysilane	919-30-2	0.1 - 1.0%
Carbon Black	1333-86-4	0.1 - 1.0%
Organotin Compounds (19% as Tin)	Trade secret	0.1 - 1.0%
Octamethylcyclotetrasiloxane	556-67-2	>=0.1 - <1.0%

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

**Trade secret information:** \*\* A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**4 First-aid measures**

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

**Eye contact:** Flush thoroughly with water for at least 15 minutes. Get medical assistance.

**Skin Contact:** Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

**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.

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

**Symptoms:** No data available.

**Hazards:** No data available.

**5 Fire-fighting measures**

**Extinguishing media:** Extinguish with foam, carbon dioxide or dry powder.

**Unsuitable extinguishing media:** No data available.

**6 Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Keep upwind. Keep unprotected persons away.

**Environmental Precautions:** Avoid discharge into drains, water courses or onto the ground.

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**Methods or materials 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.

**Prevention of secondary hazards:** Remove sources of ignition.

**7 Handling and storage**

**Handling**

**Technical measures (e.g. Local and general ventilation):** Provide adequate general and local exhaust ventilation. Eyewash bottle with clean water.

**Safe handling advice:** "Wear eye, hand and respiratory protection when in handling." 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.

**Contact avoidance measures:** No data available.

**Hygiene measures:** No data available.

**Storage**

**Safe storage conditions:** Store in a dark, cool place indoors, with container tightly closed.

**Safe packaging materials:** No data available.

**8 Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits:**

Chemical name	Type	Exposure Limit Values	Regulation Sources
Carbon Black - Respirable dust.	TWA	1 mg/m3	Japan. OELs - JSOH. (Japan Society of Occupational Health: Advisory Opinion on Permissible [Exposure] Limits) (05 2014)
Carbon Black - Total dust.	TWA	4 mg/m3	Japan. OELs - JSOH. (Japan Society of Occupational Health: Advisory Opinion on Permissible [Exposure] Limits) (05 2014)

**Personal protective equipment (ppe)**

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

**Eye Protection:** Safety glasses with side shields

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**Hand Protection:** No data available.

**Skin and Body Protection:** Chemical resistant clothing Safety shoes

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**9 Physical and chemical properties**

**Appearance**

**Physical state:** liquid

**Form:** Paste

**Color:** Black

**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 :** Not applied

**Density:** 1.03 g/cm<sup>3</sup> (23 °C)

**Vapor density:** No data available.

**Relative density:** No data available.

**Solubility(ies)**

**Solubility in water:** Insoluble

**Solubility (other):** Insoluble

**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:** No data available.

**Viscosity, kinematic:** > 7 mm<sup>2</sup>/s (40 °C)

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**10 Stability and reactivity**

**Reactivity:** No data available.

**Chemical Stability:** Material is stable under normal conditions.

**Possibility of hazardous reactions:** No data available.

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<b>Conditions to avoid:</b>	Keep away from heat, sparks and open flame.
<b>Incompatible Materials:</b>	Moisture. The catalysis of strong acids or bases cause polymerization or decomposition.
<b>Hazardous Decomposition Products:</b>	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 MSDS for formaldehyde is available from Momentive.

**11 Toxicological information**

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**

<b>Product:</b>	Not classified for acute toxicity based on available data.
<b>Specified substance(s):</b> CYCLOPENT YLSILAZA NE-AMINOSILOXANE COPOLYMER, METHOXY TERMINATED	LD 50 (Rat, male and female): ca. 4,666 mg/kg (OECD-Guideline 401 (Acute Oral Toxicity))
Organotin Compounds (19% as Tin)	LD 50 (Rat, male and female): 2,071 mg/kg (OECD-Guideline 401 (Acute Oral Toxicity)) Not classified Slightly toxic
Octamethylcyclotetra siloxane	LD 50 (Rat: 4,800 mg/kg (OECD-Guideline 401 (Acute Oral Toxicity)) Not classified

**Dermal**

<b>Product:</b>	Not classified for acute toxicity based on available data.
<b>Specified substance(s):</b> Organotin Compounds (19% as Tin)	LD 50 (Rat: >> 2,000 mg/kg (OECD-Guideline 402 (Acute Dermal Toxicity)) Semi-occlusive
Octamethylcyclotetra siloxane	LD 50 (Rat: > 2,400 mg/kg (OECD Test Guideline 402) Not classified

**Inhalation**

<b>Product:</b>	Not classified for acute toxicity based on available data.
<b>Specified substance(s):</b> Organotin Compounds (19% as Tin)	LC50 (Rat, 2.00 h): ca. 10 mg/l (No data available.)
<b>Specified substance(s):</b>	

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Octamethylcyclotetrasiloxane LC50 (Rat, 4 h): 36 mg/l (OECD Test Guideline 403)

**Repeated dose toxicity**

**Product:** No data available.  
**Specified substance(s):**  
 gamma-Aminopropyltriethoxysilane NOAEL (Rat, Oral, 90 d): 200 mg/kg

**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.

**Japan Society for Occupational Health: Carcinogen :**

Carbon Black

**Japan. ISHL Designated Carcinogen:**

No carcinogenic components identified

**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):**  
 gamma-Aminopropyltriethoxysilane Ames-Test: negative  
 Chinese Hamster Ovary (CHO): negative  
**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):**  
 gamma-Aminopropyltriethoxysilane Micronucleus test (mouse): negative

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**Specified substance(s):**

Octamethylcyclotetrasiloxane Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)) Inhalation (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:**

Contains dibutyl tin dilaurate which may cause birth defects and reproductive effects based on animal data.

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**12 Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

gamma-Aminopropyltriethoxysilane EC50 (Daphnia magna, 48 h): 331 mg/l

Organotin Compounds (19% as Tin) EC50 (Daphnia magna, 48 h): < 0.463 mg/l Fresh water

**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**

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

**Known or predicted distribution to environmental compartments**

CYCLOPENT YLSILAZANE No data available.

-AMINOSILOXANE

COPOLYMER, METHOXY

TERMINATED

gamma- No data available.

Aminopropyltriethoxysilane

Carbon Black No data available.

Organotin Compounds (19%  
as Tin) No data available.

Octamethylcyclotetrasiloxane No data available.

**Hazardous to the ozone layer:** No data available.

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

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**13 Disposal considerations**

**General information:** none

**Disposal methods:** This product falls under Industrial Waste based on Wastes Disposal and Public Cleansing Law. Dispose of in accordance with this law and local regulations.

**Contaminated Packaging:** Dispose of as unused product.

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**14 Transport information**

**International regulations**

**IMDG - International Maritime Dangerous Goods Code**

Not regulated.

**IATA**

Not regulated.

**National Regulations**

**Domestic Standard:** In compliance with domestic law.

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**15 Regulatory information**

**Law concerning Pollutant Release and Transfer Register**

**PRTR and Promotion of Chemical Management Law, new regulated substances (Cabinet Order No. 356, 2008):**

**Specified Class 1 substance(s):** Not applicable

**Class 1 Substance(s):** Not applicable

**Class 2 Substance(s):** Not applicable

**Industrial Safety and Health Act:**

**Article 57-2 Regulated Substance(s):** Carbon black, Tin and its compounds,

**Article 57 Regulated Substance(s) subject to labeling:** None Reported

**ISHL Organic Solvents**

**ISHL Designated or Specified Chemical Substances**

**Poisonous and Deleterious Substances Control Act:**

**Specified poisonous substance(s):**

**Main law:** Not applicable

**Cabinet order:** Not applicable

**Poisonous Substance(s): Main**

**law:** Not applicable **Cabinet**

**order:** Not applicable

**Deleterious Substance(s): Main**

**law:** Not applicable **Cabinet**

**order:** Not applicable

**High Pressure Gas Safety Law**

Not applicable

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**Fire Service Law:**

Class 4, Group 3 oils Non-water soluble Hazardous Rank: III No fire

**Japan CSCL: Priority Assessment Chemical Substances:** Not applicable

**Act on Prevention of Marine Pollution and Maritime Disaster:** Not applicable

**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:	n (Negative 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: On TSCA Inventory
New Zealand Inventory of Chemicals:	n (Negative listing)	Remarks: None.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory	Remarks: None.

**16 Other Information**

**Revision Information:** ARGLO\_INVSTSARGHS\_JP  
**Issue Date:** 06/08/2018  
**SDS No.:**

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**Disclaimer:**

**Notice to reader**

This material is developed and manufactured for industrial applications only. For medical or other special applications, use after performing safety testing on the product and confirming safety. Never use for human applications such as implant, impregnation, or where a residue may possibly remain in the body.

**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.

**Literature Reference :** No data available.