

RTV577

SAFETY DATA SHEET

1. Identification

Product identifier: RTV577

Other means of identification

Synonyms: SILICONE RUBBER COMPOUND

Recommended use and restriction on use

Recommended use: Silicone Elastomer

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information : Momentive Performance Materials - Sistersville
10851 Energy Highway
FRIENDLY WV 26146

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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3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*	Notes
(1) Calcium Carbonate	471-34-1	20 - <50%	# This substance has workplace exposure limit(s).
(1) Zinc oxide	1314-13-2	10 - <20%	# This substance has workplace exposure limit(s).
Silicic acid, ethyl ester	11099-06-2	1 - <5%	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

Ingestion: If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical attention.

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: After contact with skin, remove product mechanically. Wash area 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: Treatment is symptomatic and supportive.

5. Fire-fighting measures

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General Fire Hazards: Use standard firefighting procedures and consider the hazards of other involved materials. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: All standard extinguishing agents are suitable.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the 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. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Keep away from sources of ignition - No smoking.

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: Avoid contact with skin and eyes. 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.

Notification Procedures: Caution: Contaminated surfaces may be slippery. Remove sources of ignition.

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

7. Handling and storage

Precautions for safe handling: Sensitivity to static discharge is not expected.

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Conditions for safe storage, including any incompatibilities: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
(1) Calcium Carbonate - Total	REL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
(1) Calcium Carbonate - Respirable.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
(1) Calcium Carbonate - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
(1) Calcium Carbonate - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
(1) Calcium Carbonate - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
(1) Calcium Carbonate - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
(1) Calcium Carbonate - Total dust.	TWA	15 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
(1) Calcium Carbonate - Respirable fraction.	TWA	5 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
(1) Zinc oxide - Respirable fraction.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2015)
	STEL	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2015)
(1) Zinc oxide - Dust.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
(1) Zinc oxide - Fume.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
(1) Zinc oxide - Dust.	Ceil_Time	15 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
(1) Zinc oxide - Fume.	STEL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
(1) Zinc oxide - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
(1) Zinc oxide - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
(1) Zinc oxide - Total dust.	TWA	10 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
(1) Zinc oxide - Fume.	STEL	10 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
(1) Zinc oxide - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
(1) Zinc oxide - Total dust.	TWA	10 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
(1) Zinc oxide - Respirable fraction.	TWA	5 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
(1) Zinc oxide - Fume.	TWA	5 mg/m3	US. Tennessee. OELs. Occupational Exposure

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			Limits, Table Z1A, as amended (06 2008)
(1) Zinc oxide	ST ESL	20 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (11 2016)
	AN ESL	2 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (11 2016)
(1) Zinc oxide - Fume.	TWA PEL	5 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (01 2015)
	STEL	10 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (01 2015)
(1) Zinc oxide	IDLH	500 mg/m3	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
(1) Zinc oxide - Fume.	STEL	10 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (01 2019)

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: Rubber gloves are recommended.

Other: Wear suitable protective clothing 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).

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

9. Physical and chemical properties

Appearance

Physical state: solid

Form: Paste

Color: White

Odor: Faint

Odor threshold: No data available.

pH: Not applicable

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Melting point/freezing point:	No data available.
Initial boiling point and boiling range :	> 168 °C
Flash Point:	> 100 °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:	Not applicable
Density:	ca. 1.35 g/cm ³
Relative density:	ca. 1.35
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	Negligible
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	Not applicable
Decomposition temperature:	No data available.
SADT:	No data available.
Viscosity, dynamic:	No data available.
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 polymerization does not occur.
Conditions to avoid:	Heat, sparks, flames.
Incompatible Materials:	None known.
Hazardous Decomposition Products:	Carbon dioxide Formaldehyde. 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.

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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.

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.

Specified substance(s):

(1) Zinc oxide LD 50 (Rat): > 5,000 mg/kg

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

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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.

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.

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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.

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) Calcium Carbonate No data available.

(1) Zinc oxide No data available.

Silicic acid, ethyl ester 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. Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment.

Disposal instructions:

Disposal should be made in accordance with federal, state and local regulations.

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Contaminated Packaging: Dispose of as unused product.

14. Transport information

DOT

UN Number:	UN 3082
UN Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.(zinc oxide)
Transport Hazard Class(es)	
Class:	9
Label(s):	9
Packing Group:	III
Marine Pollutant:	Yes

IMDG

UN Number:	UN 3082
UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(zinc oxide)
Transport Hazard Class(es)	
Class:	9
Label(s):	9
EmS No.:	F-A, S-F
Packing Group:	III
Marine Pollutant:	Yes
Limited quantity	5.00L
Excepted quantity	E1

IATA

UN Number:	UN 3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.(zinc oxide)
Transport Hazard Class(es):	
Class:	9
Label(s):	9MI
Packing Group:	III
Cargo aircraft only Packing Instructions:	964
Passenger and cargo aircraft Packing Instructions:	964
Limited quantity:	30.00L
Packing Instructions:	Y964
Excepted quantity	E1
Environmental Hazards:	Environmentally hazardous
Marine Pollutant:	Yes

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Special precautions for user: In accordance with National and International regulations for Dangerous Goods and applicable Special Provisions, products otherwise classified as a Dangerous Goods for transport, with Class 9, UN 3077 or UN 3082, need not be packed, marked, labeled or placarded as a Dangerous Goods, when shipped in Single or combination packagings, containing a net quantity per single or inner packaging of 5 L or less, for liquids or having a net mass of 5 kg or less, for solids

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>
Siloxanes and Silicones, di-Me, di-Ph, hydroxy-terminated	No OSHA Hazards
(1) Calcium Carbonate	Causes mild skin irritation.; Corrosive to eyes; Respiratory hazard.
(1) Zinc oxide	No OSHA Hazards
Castor oil, hydrogenated	No OSHA Hazards

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
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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.

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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

<u>Chemical Identity</u>	<u>Reporting threshold for other users</u>	<u>Reporting threshold for manufacturing and processing</u>
(1) Zinc oxide		

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.

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

Chemical Identity

Siloxanes and Silicones, di-Me, di-Ph, hydroxy-terminated

(1) Calcium Carbonate

(1) Zinc oxide

Castor oil, hydrogenated

Silicic acid, ethyl ester

US. Massachusetts RTK - Substance List

Chemical Identity

(1) Calcium Carbonate

(1) Zinc oxide

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

(1) Calcium Carbonate

(1) Zinc oxide

Silicic acid, ethyl ester

US. Rhode Island RTK

Chemical Identity

(1) Calcium Carbonate

(1) Zinc oxide

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Inventory Status:

Australia AICS:	On or in compliance with the inventory	Remarks: None.
Canada DSL Inventory List:	On or in compliance with the inventory	Remarks: None.
EINECS, ELINCS or NLP:	On or in compliance with the inventory	Remarks: None.
Japan (ENCS) List:	On or in compliance with the inventory	Remarks: None.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory	Remarks: None.
Canada NDSL Inventory:	Not in compliance with the inventory.	Remarks: None.
Philippines PICCS:	On or in compliance with the inventory	Remarks: None.
US TSCA Inventory:	On or in compliance with the inventory	Remarks: None.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory	Remarks: None.
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.

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

HMIS Hazard ID

Health	0
Flammability	0
Physical Hazards	0
PERSONAL PROTECTION	

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

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Issue Date: 08/12/2020
Revision Date: No data available.
Version #: 2.1
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 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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DBT

SAFETY DATA SHEET

1. Identification

Product identifier: DBT

Other means of identification

Synonyms: Tin Catalyst (DBT)

Recommended use and restriction on use

Recommended use: For industrial use only.

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

Health Hazards

Skin Corrosion/Irritation	Category 1C
Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1
Germ Cell Mutagenicity	Category 2
Toxic to reproduction	Category 1B
Specific Target Organ Toxicity - Single Exposure	Category 1 ¹ .
Specific Target Organ Toxicity - Repeated Exposure	Category 1 ² .

Target Organs

1. thymus
2. thymus

Label Elements

DBT

Hazard Symbol:



Signal Word: Danger

Hazard Statement: H314; Causes severe skin burns and eye damage.
H317; May cause an allergic skin reaction.
H341; Suspected of causing genetic defects.
H360; May damage fertility or the unborn child.
H370; Causes damage to organs.
H372; Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

Precautionary Statements

Prevention: Do not breathe dust or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

3. Composition/information on ingredients

DBT

Substances

Chemical Identity	CAS number	Content in percent (%)*
Dibutyltin Dilaurate	77-58-7	50 - <100%

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

4. First-aid measures

- Ingestion:** If swallowed, do NOT induce vomiting. Give a glass of water. Call a physician or poison control center immediately.
- Inhalation:** Move to fresh air. If respiratory problems, artificial respiration/oxygen. Get medical attention.
- Skin Contact:** Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Wash contaminated clothing before reuse. Call a physician or poison control center immediately.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed

Symptoms: This product is a corrosive material. Gastric lavage or emesis may be contraindicated. Ingestion or inhalation may result in shock, decreased blood pressure, pulmonary edema, CNS depression, edema of the glottis with asphyxia, and perforation of the esophagus or stomach. Inhalation of vapors or fumes may result in coughing, choking, and CNS effects followed after a 6-8 hour latent period by pulmonary edema with tightness in the chest, air hunger, dizziness, frothy sputum, and cyanosis. Physical findings may include moist rales, low blood pressure, and high pulse pressure. Hemoptysis and dyspnea may continue for several weeks. Prednisolone may reduce esophageal stricture formation.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Treatment is symptomatic and supportive.

5. Fire-fighting measures

General Fire Hazards: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: All standard extinguishing agents are suitable.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: In case of fire, carbon monoxide and carbon dioxide may be formed. Oxides of tin.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: 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: Caution: Contaminated surfaces may be slippery. Avoid contact with skin and eyes. See Section 8 of the SDS for Personal Protective Equipment. Keep out of reach of children.

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.

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

7. Handling and storage

Precautions for safe handling: Sensitivity to static discharge is not expected. Do not taste or swallow. Wash thoroughly after handling.

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
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Dibutyltin Dilaurate - as Sn	STEL	0.2 mg/m ³	US. ACGIH Threshold Limit Values (03 2015)
	TWA	0.1 mg/m ³	US. ACGIH Threshold Limit Values (03 2015)
	REL	0.1 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	0.1 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	0.1 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	0.1 mg/m ³	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	TWA PEL	0.1 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015)
	STEL	0.2 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015)
Dibutyltin Dilaurate - Particulate.	AN ESL	0.1 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL	1 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)

Appropriate Engineering Controls

Provide eyewash station and safety shower. Use only with adequate ventilation.

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: Wear approved safety goggles. Face shield

Skin Protection

Hand Protection: Chemical resistant gloves

Other: Wear suitable protective clothing and eye/face protection.

Respiratory Protection: 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).

Hygiene measures: Avoid contact with eyes, skin, and clothing. Observe good industrial hygiene practices. Wash hands after handling. When using do not eat, drink or smoke.

9. Physical and chemical properties

DBT

Appearance

Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Faint
Odor threshold:	No data available.
pH:	Not applicable
Melting point/freezing point:	Not applicable
Initial boiling point and boiling range:	205 °C (1.013 hPa) (other methods)
Flash Point:	191 °C (other methods)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	19.00 %(V)
Flammability limit - lower (%):	3.30 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Heat of combustion:	No data available.
Vapor pressure:	Negligible
Vapor density:	No data available.
Density:	ca. 1.066 g/cm ³ (25 °C)
Relative density:	1.28
Solubility(ies)	
Solubility in water:	Slightly Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water) Log Pow:	4.44 ; pH 6.1 (OECD Test Guideline 107)
Auto-ignition temperature:	> 300 °C
Decomposition temperature:	No data available.
SADT:	No data available.
Viscosity, dynamic:	No data available.
Viscosity, kinematic:	No data available.
VOC:	27 g/l ;

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.

DBT

Conditions to avoid:	None known.
Incompatible Materials:	None known.
Hazardous Decomposition Products:	Carbon dioxide Carbon Monoxide. Tin fumes.

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.
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.

Specified substance(s):

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

Dermal

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

Specified substance(s):

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

Inhalation

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

Specified substance(s):

Dibutyltin Dilaurate LC50 (Rat,): 10 mg/l

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Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: OECD-Guideline 404 (Acute Dermal Irritation/Corrosion) (Rabbit): Corrosive

Serious Eye Damage/Eye Irritation

Product: (Rabbit): Irritating to eyes.

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):

No carcinogenic components identified

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.

Target Organs

Specific Target Organ Toxicity - Single Exposure: thymus

Specific Target Organ Toxicity - Repeated Exposure: thymus

Aspiration Hazard

Product: No data available.

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Other effects: Contains dibutyl tin dilaurate which may cause birth defects and reproductive effects based on animal data. In animal studies with repeated oral application of dibutyl tin compounds toxic effects were observed on the liver, bile duct, brain and immune system.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Dibutyltin Dilaurate 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.

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

Dibutyltin Dilaurate 23 % (39 d) The product is not readily biodegradable.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

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Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: 4.44 20.8 °C (OECD Test Guideline 107)

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Dibutyltin Dilaurate No data available.

Other adverse effects: No data available.

13. Disposal considerations

General information: See Section 8 for information on appropriate personal protective equipment. The generation of waste should be avoided or minimized wherever possible. 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

UN Number: UN 1760
 UN Proper Shipping Name: Corrosive liquids, n.o.s.(Dibutyltin Dilaurate)
 Transport Hazard Class(es)
 Class: 8
 Label(s): 8
 Packing Group: III
 Marine Pollutant: Yes

IMDG

UN Number: UN 1760
 UN Proper Shipping Name: CORROSIVE LIQUID, N.O.S.(Dibutyltin Dilaurate)
 Transport Hazard Class(es)
 Class: 8
 Label(s): 8
 EmS No.: F-A, S-B
 Packing Group: III
 Marine Pollutant: Yes
 Limited quantity 5.00L

 Excepted quantity E1

IATA

UN Number: UN 1760
 Proper Shipping Name: Corrosive liquid, n.o.s.(Dibutyltin Dilaurate)

DBT

Transport Hazard Class(es):	
Class:	8
Label(s):	8
Packing Group:	III
Cargo aircraft only Packing	856
Instructions:	
Passenger and cargo aircraft	856
Packing Instructions:	
Limited quantity:	1.00L
Packing Instructions:	Y841
Excepted quantity	E1
Environmental Hazards:	Environmentally hazardous
Marine Pollutant:	Yes

Special precautions for user: This substance/preparation meets the criteria of a Marine Pollutant (see IMDG paragraph 2.9.3.3) but is not identified in the IMDG Code (Marpol list). As such, substance/preparation shall be transported as a marine pollutant in accordance with the IMDG code.

This product is considered hazardous for transportation. Momentive Performance Materials ships this material under Limited Quantity or Consumer Commodity provisions of the transport regulations.

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

- Specific target organ toxicity (single or repeated exposure)
- Skin Corrosion or Irritation
- Serious eye damage or eye irritation
- Respiratory or Skin Sensitization
- Germ Cell Mutagenicity
- Reproductive toxicity

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

DBT

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>
Dibutyltin Dilaurate	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 regulated by CA Prop 65 present.

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

<u>Chemical Identity</u>
Dibutyltin Dilaurate

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

<u>Chemical Identity</u>
Dibutyltin Dilaurate

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Inventory Status:

Australia AICS:	On or in compliance with the inventory	Remarks: None.
Canada DSL Inventory List:	On or in compliance with the inventory	Remarks: None.
EINECS, ELINCS or NLP:	On or in compliance with the inventory	Remarks: None.
Japan (ENCS) List:	On or in compliance with the inventory	Remarks: None.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory	Remarks: None.
Canada NDSL Inventory:	Not in compliance with the inventory.	Remarks: None.
Philippines PICCS:	On or in compliance with the inventory	Remarks: None.
US TSCA Inventory:	On or in compliance with the inventory	Remarks: None.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory	Remarks: None.
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.

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

HMIS Hazard ID

Health	*	4
Flammability		1
Physical Hazards		0
PERSONAL PROTECTION		

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

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Issue Date: 07/27/2018
Revision Date: No data available.
Version #: 2.1
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 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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