

BETA16

SAFETY DATA SHEET

1. Identification

Product identifier: BETA16

Other means of identification

Synonyms: Silicone Catalyst

Recommended use and restriction on use

Recommended use: 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

Physical Hazards

Flammable liquids Category 3

Health Hazards

Serious Eye Damage/Eye Irritation Category 2A

Skin sensitizer Category 1

Toxic to reproduction Category 1B

Specific Target Organ Toxicity - Repeated Exposure Category 1¹

Target Organs

1. Immune system

Label Elements

Hazard Symbol:

SDS_US

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Signal Word: Danger

Hazard Statement: Flammable liquid and vapor.
May cause an allergic skin reaction.
Causes serious eye irritation.
May damage fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting/] equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Contaminated work clothing must 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 breathe dust or mists. Do not eat, drink or smoke when using this product.

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. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Specific treatment (see this label). Wash contaminated clothing before reuse. In case of fire: Use ... to extinguish.

Storage: Store in well-ventilated place. Keep cool. 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

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Mixtures

Chemical Identity	CAS number	Content in percent (%)*	Notes
Tetraethyl Silicate	78-10-4	10 - <20%	# This substance has workplace exposure limit(s).
Dimethyltin neodecanoate	68928-76-7	5 - <10%	# This substance has workplace exposure limit(s).
N-Propanol	71-23-8	0.1 - <1%	# This substance has workplace exposure limit(s).
DIBUTYL TINOXIDE (48% as Tin)	818-08-6	0.1 - <0.3%	# This substance has workplace exposure limit(s).

* 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.
- 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:** Wash area with soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- 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:** No data available.

5. Fire-fighting measures

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General Fire Hazards: No data available.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Foam. Carbon dioxide

Unsuitable extinguishing media: No data available.

Specific hazards arising from the chemical: No data available.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Wear appropriate personal protective equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use only in well-ventilated areas. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray mists.

Methods and material for containment and cleaning up: Wipe, scrape or soak up in an inert material and put in a container for disposal. Wear proper protective equipment as specified in the protective equipment section. Warn other workers of spill. Keep unauthorized personnel away.

7. Handling and storage

Precautions for safe handling: Sensitivity to static discharge is expected; material has a flash point below 200 F.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed. Recommended storage in original container below 30°C (85°F).

8. Exposure controls/personal protection

**Control Parameters
 Occupational Exposure Limits**

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Chemical Identity	Type	Exposure Limit Values	Source
Tetraethyl Silicate	TWA	10 ppm	US. ACGIH Threshold Limit Values (03 2015)
	REL	10 ppm 85 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	100 ppm 850 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	10 ppm 85 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	0.2 mg/m3	US. ACGIH Threshold Limit Values (03 2015)
	TWA	0.1 mg/m3	US. ACGIH Threshold Limit Values (03 2015)
	REL	0.1 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	0.1 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	0.1 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm	US. ACGIH Threshold Limit Values (03 2015)
	REL	200 ppm 500 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
N-Propanol	STEL	250 ppm 625 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	200 ppm 500 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	200 ppm 500 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	250 ppm 625 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
DIBUTYL TINOXIDE (48% as Tin) - as Sn	STEL	0.2 mg/m3	US. ACGIH Threshold Limit Values (03 2015)
	TWA	0.1 mg/m3	US. ACGIH Threshold Limit Values (03 2015)
	REL	0.1 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	0.1 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	0.1 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Appropriate Engineering Controls

Use only in well-ventilated areas.

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:

Face shield Monogoggles

Skin Protection

Hand Protection:

No data available.

Other:

Wear suitable protective clothing and eye/face protection.

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Respiratory Protection: Use only in well-ventilated areas. Use approved NIOSH respiratory protection if TLV exceeded or overexposure is likely.

Hygiene measures: No data available.

9. Physical and chemical properties

Appearance

Physical state: liquid

Form: liquid

Color: Red

Odor: ester like

Odor threshold: No data available.

pH: not applicable

Melting point/freezing point: No data available.

Initial boiling point and boiling range: not applicable

Flash Point: 41 °C (PENSKY-MARTENS)

Evaporation rate: > 1

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: No data available.

Density: No data available.

Relative density: 1.00

Solubility(ies)

Solubility in water: Reactive.

Solubility (other): No data available.

Partition coefficient (n-octanol/water) Log Pow: No data available.

Pow:

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

SADT: No data available.

Viscosity, dynamic: No data available.

Viscosity, kinematic: No data available.

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VOC: 6 g/l

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Hazardous polymerisation does not occur.
Conditions to avoid:	Keep away from sources of ignition - No smoking. Keep away from any contact with water.
Incompatible Materials:	Contact with water. Reacts with water forming ethanol.
Hazardous Decomposition Products:	Carbon dioxide Silicon dioxide. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

11. Toxicological information

Information on likely routes of exposure

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

Symptoms related to the physical, chemical and toxicological characteristics

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

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	not applicable
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Specified substance(s):

Dimethyltin
neodecanoate LD 50 (Rat): 894 mg/kg

DIBUTYL TINOXIDE LD 50 (Rat): 487 mg/kg
(48% as Tin)

Dermal

Product: not applicable

Specified substance(s):

Dimethyltin LD 50 (Rat): > 2,000 mg/kg
neodecanoate

Inhalation

Product: not applicable

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

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

No carcinogenic components identified

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Germ Cell Mutagenicity

In vitro

Product: No data available.

Specified substance(s):

Dimethyltin
neodecanoate Ames-Test (OECD 473): negative

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 - Repeated Exposure: Immune system

Aspiration Hazard

Product: No data available.

Other effects: None known. No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Tetraethyl Silicate LC100 (No data available., 24 h): 9,000 mg/l
LC50 (Brachydanio rerio, 96 h): > 245 mg/l

Aquatic Invertebrates

Product: No data available.

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Specified substance(s):

Tetraethyl Silicate EC50 (Blue Crab): 7,800 mg/l

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):

Tetraethyl Silicate 98 % (28 d, OECD-Guideline 301 A (DOC Die-Away Test)) Readily biodegradable

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

Tetraethyl Silicate No data available.

Dimethyltin neodecanoate No data available.

N-Propanol No data available.

DIBUTYL TINOXIDE (48% No data available.

as Tin)

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Other adverse effects: No data available.

13. Disposal considerations

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

Contaminated Packaging: No data available.

14. Transport information

DOT

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

Special precautions for user: This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods. Although the flash point indicates that this product is combustible, the material does not support combustion as demonstrated by Sustained Combustibility Test, UN Manual of Tests and Criteria, Part III, subsection 32.5.2

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):

Chemical Identity

N-Propanol

Reportable quantity

100 lbs.

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard

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Delayed (Chronic) Health Hazard
Immediate (Acute) Health Hazards

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Tetraethyl Silicate	10000 lbs
Dimethyltin neodecanoate	10000 lbs
N-Propanol	10000 lbs
DIBUTYL TINOXIDE (48% as Tin)	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>
Polydimethylsiloxane
Tetraethyl Silicate
Dimethyltin neodecanoate
Octyltriethoxysilane
SILICIC ACID, TETRAPROPYL ESTER, Silicic acid (H4SiO4) , tetrapropyl ester
N-Propanol
DIBUTYL TINOXIDE (48% as Tin)

US. Massachusetts RTK - Substance List

<u>Chemical Identity</u>
Tetraethyl Silicate

US. Pennsylvania RTK - Hazardous Substances

<u>Chemical Identity</u>
Tetraethyl Silicate

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US. Rhode Island RTK

Chemical Identity
 Tetraethyl Silicate

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:	Not 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.

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

HMIS Hazard ID

Health	*	2
Flammability	2	
Physical Hazards	1	
PERSONAL PROTECTION		

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

Issue Date: 03/09/2017

Revision Date: No data available.

Version #: 2.0

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Further Information: No data available.

Disclaimer:

Notice to reader

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives.
Keep out of the reach of children.

Further Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for 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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