SAFETY DATA SHEET

1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Niax® stannous octoate D-19

Recommended use: Used in the manufacturing of polyurethane foam.

Limitations on use: For industrial use only.

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

Contact person: commercial.services@momentive.com

Telephone: +65-6496-2121
Telefax: +66-3868-9121

Emergency telephone number: +65-3158-1074

Responsible Department: Product Stewardship & Compliance

2 HAZARDS IDENTIFICATION

GHS classification:

Health Hazards:

- Serious Eye Damage/Eye Irritation Category 1
- Skin sensitizer Category 1
- Toxic to reproduction Category 2
- Toxic to reproduction Category 2

GHS label elements:

Symbol(s):

Signal Word: Danger

Hazard Statement(s):

- Causes serious eye damage.
- May cause an allergic skin reaction.
- Suspected of damaging fertility or the unborn child.
Precautionary Statement

Prevention:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye protection/face protection. Avoid breathing vapors. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response:
IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: 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.

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 classification:

Primary hazards: No data available.
Specific hazards: No data available.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical nature: Stannous octoate

<table>
<thead>
<tr>
<th>Substance or Preparation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Concentration*</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANNOUS OCTOATE</td>
<td>301-10-0</td>
<td>&gt;60%</td>
</tr>
</tbody>
</table>

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

Impurities and stabilizing additives which contribute to the hazard

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Concentration*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethylhexanoic acid</td>
<td>149-57-5</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

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

4 FIRST AID MEASURES

Inhalation: Move to fresh air.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Skin Contact: Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention. Wash contaminated clothing before reuse.
**Niax** stannous octoate D-19

**Ingestion**
If swallowed, do NOT induce vomiting. Give a glass of water.

Treatment is symptomatic and supportive.

### 5 FIRE-FIGHTING MEASURES

**Extinguishing media:** Alcohol resistant foam. Carbon dioxide Dry chemical.

**Unsuitable extinguishing media:** Avoid water in straight hose stream; will scatter and spread fire.

**Specific hazard arising from the chemical:** Exposure to fire can generate toxic fumes.

**Special fire fighting procedures:** Do not use water jet as an extinguisher, as this will spread the fire. Use water spray to keep fire-exposed containers cool.

**Special protective action for fire fighters:** Wear self-contained breathing apparatus and protective clothing.

### 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Avoid contact with eyes, skin, and clothing. Avoid contact with liquid and vapors. Use personal protective equipment.

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

**Methods and material for containment and cleaning up:** Absorb spillage with suitable absorbent material. Shovel up and place in a container for salvage or disposal.

**Notification Procedures:** Remove sources of ignition. In case of spills, beware of slippery floors and surfaces. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the National Rivers Authority or other appropriate regulatory body.

### 7 HANDLING AND STORAGE

**Precautions for safe handling:** Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Wash hands after handling. Provide adequate ventilation. Avoid inhalation of vapors and spray mists.

**Condition for safe storage, including any incompatibilities:** Store in a dark, cool place indoors with container tightly closed. Avoid any source of heat, direct sunlight and strong light. Store in original container. Keep away from sources of ignition - No smoking.

### 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**Appropriated engineering control measures:** General (mechanical) room ventilation is expected to be satisfactory if handled at low temperatures or in covered equipment.

**Occupational Exposure Limits:** None known.

**Personal protective equipment (ppe) Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment.
9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Pale yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>No data available.</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>( &gt; 142 , ^\circ C ) (ASTM D 93)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flammability Limit - Upper (%)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammability Limit - Lower (%)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapor density (air=1)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Density</td>
<td>1.25 g/cm(^3) (25 °C)</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
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<tr>
<td>Solubility (other)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water) Log Pow</td>
<td>calculated</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>SADT</td>
<td>No data available.</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available.</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

10 STABILITY AND REACTIVITY

Incompatible Materials: Oxidizing agents.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerisation does not occur.
Niax* stannous octoate D-19

Conditions to avoid: None known.

Hazardous Decomposition Products: In case of fire, gives off (emits): Carbon oxides Oxides of tin. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation: No data available.

Ingestion: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Information on toxicological effects

Acute toxicity

Oral
Product: LD 50 (Rat): 3,400 mg/kg

Dermal
Product: LD 50 (Rat): > 2,000 mg/kg

Inhalation
Product: No data available.
Not classified for acute toxicity based on available data.

Repeated dose toxicity
Product: No data available.

Specified substance(s)
STANNOUS OCTOATE
2-Ethylhexanoic acid
No data available.

Skin Corrosion/Irritation:
Product: (Rabbit): Irritating.

Serious Eye Damage/Eye Irritation:
Product: (Rabbit): Irritating to eyes.

Respiratory or Skin Sensitization:
Product: No data available.
Germ Cell Mutagenicity

**In vitro**
Product: Ames-Test: negative

**In vivo**
Product: No data available.

Specified substance(s)
STANNOUS OCTOATE: No data available.
2-Ethylhexanoic acid: No data available.

Carcinogenicity
Product: No data available.

Specified substance(s)
STANNOUS OCTOATE: No data available.
2-Ethylhexanoic acid: No data available.

Reproductive toxicity
Product: No data available.

Specified substance(s)
STANNOUS OCTOATE: No data available.
2-Ethylhexanoic acid: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specified substance(s)
STANNOUS OCTOATE: No data available.
2-Ethylhexanoic acid: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Specified substance(s)
STANNOUS OCTOATE: No data available.
2-Ethylhexanoic acid: No data available.

Aspiration Hazard
Product: No data available.

Specified substance(s)
STANNOUS OCTOATE: No data available.
2-Ethylhexanoic acid: No data available.

Metabolism: No data available.

Other effects: May cause: liver damage

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### 12 ECOLOGICAL INFORMATION

**General information:** not applicable

**Ecotoxicity**

**Acute toxicity**

**Fish**
Product: No data available.

Specified substance(s):
STANNOUS OCTOATE: No data available.
Niax® stannous octoate D-19

2-Ethylhexanoic acid
LC50 (Leuciscus idus, 96 h): ca. 100 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):
- STANNOUS OCTOATE No data available.
- 2-Ethylhexanoic acid No data available.

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s):
- STANNOUS OCTOATE No data available.
- 2-Ethylhexanoic acid No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s):
- STANNOUS OCTOATE No data available.
- 2-Ethylhexanoic acid No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):
- STANNOUS OCTOATE No data available.
- 2-Ethylhexanoic acid No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Specified substance(s):
- STANNOUS OCTOATE No data available.
- 2-Ethylhexanoic acid No data available.

Bioaccumulative Potential

Product: No data available.

Mobility in Soil:

No data available.

Known or predicted distribution to environmental compartments

- STANNOUS OCTOATE No data available.
- 2-Ethylhexanoic acid No data available.

Results of PBT and vPvB assessment:

- STANNOUS OCTOATE No data available.
- 2-Ethylhexanoic acid No data available.

Other Adverse Effects: No data available.
13 Disposal considerations

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: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

The generation of waste should be avoided or minimized wherever possible. The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

14 TRANSPORT INFORMATION

ADR/RID
Not regulated.

IMDG - International Maritime Dangerous Goods Code
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.

15 REGULATORY INFORMATION

Applicable regulations:
- Factories Act
- Act on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
- Environmental Public Health Act
- Environmental Public Health (Toxic Industrial Waste) Regulations
- Singapore. Hazardous Substances Control List (Environmental Protection and Management Act, Second Schedule, Part 1, Control of Hazardous Substances)
- Environmental Pollution Control (Hazardous Substances) Regulations

16 OTHER INFORMATION

Inventory Status
- Australia AICS: y (positive listing)
- EU EINECS List: y (positive listing)
- Japan (ENCS) List: y (positive listing)
- China Inventory of Existing Chemical Substances: y (positive listing)
- Korea Existing Chemicals Inv. (KECI): y (positive listing)
- Canada DSL Inventory List: y (positive listing)
- Canada NDSL Inventory: n (Negative listing)
- Philippines PICCS: y (positive listing)
- US TSCA Inventory: y (positive listing)
- New Zealand Inventory of Chemicals: y (positive listing)
- Taiwan. Taiwan inventory (CSNN): y (positive listing)

Revision Information:
Issue Date: 2016/07/20
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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