Canada
Material Safety Data Sheet
FOR INDUSTRIAL USE ONLY
EPIKURE (TM) Curing Agent MGS LH 335

1. Product and company identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>: EPIKURE# Curing Agent MGS LH 335 drum 200KG</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSDS Number</td>
<td>: 16S-00034</td>
</tr>
<tr>
<td>Synonym</td>
<td>: HÄRTER 335</td>
</tr>
<tr>
<td>Material uses</td>
<td>: Hardener for resins.</td>
</tr>
<tr>
<td>Validation date</td>
<td>: 04/07/2013</td>
</tr>
<tr>
<td>Print date</td>
<td>: 08/07/2013</td>
</tr>
</tbody>
</table>

Manufacturer, Importer, Supplier
Momentive Specialty Chemicals B.V.
Seattleweg 17
3195 ND Pernis - Rotterdam
The Netherlands

Contact person
4information@momentive.com

Telephone
General information:
+31 6 52 511079

Emergency telephone number
CARECHEM24
+44(0)208 762 8322

2. Hazards identification

Emergency overview

<table>
<thead>
<tr>
<th>Physical state</th>
<th>: Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>: Blue.</td>
</tr>
<tr>
<td>Odor</td>
<td>: Amine-like.</td>
</tr>
<tr>
<td>Signal word</td>
<td>: DANGER!</td>
</tr>
<tr>
<td>Hazard statements</td>
<td>CAUSES DIGESTIVE TRACT, EYE AND SKIN BURNS. HARMFUL IF INHALED. INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE</td>
</tr>
</tbody>
</table>
TARGET ORGAN DAMAGE. CONTAINS MATERIAL WHICH MAY CAUSE HERITABLE GENETIC EFFECTS.

Precautionary measures: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Do not get in eyes. Do not get on skin. Do not eat, drink or smoke when using this product. Avoid prolonged contact with eyes, skin and clothing. Keep container tightly closed. Use personal protective equipment as required. Wash thoroughly after handling.

Potential acute health effects

Inhalation: Toxic by inhalation. Can cause central nervous system (CNS) depression. Irritating to respiratory system. May cause sensitization by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion: Harmful if swallowed. Can cause central nervous system (CNS) depression. Corrosive to the digestive tract. Causes burns.

Skin: Corrosive to the skin. Causes burns. Harmful in contact with skin. May cause sensitization by skin contact.

Eyes: Corrosive to eyes. Causes burns.

Potential chronic health effects

Chronic effects: Contains material that can cause target organ damage. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: Contains material which may cause heritable genetic effects.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Target organs: Contains material which causes damage to the following organs:

- kidneys
- liver
- gastrointestinal tract
- upper respiratory tract
- skin
- eyes
- central nervous system (CNS)

Over-exposure signs/symptoms

Inhalation: Adverse symptoms may include the following:
- nausea or vomiting
- respiratory tract irritation
- coughing
- headache
- drowsiness/fatigue
- dizziness/vertigo
- wheezing and breathing difficulties
- unconsciousness
- asthma

Ingestion: Adverse symptoms may include the following:
- stomach pains
Skin: Adverse symptoms may include the following:
- pain or irritation
- redness
- blistering may occur

Eyes: Adverse symptoms may include the following:
- pain
- watering
- redness

Medical conditions aggravated by over-exposure: Pre-existing respiratory and skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-Xylene-α, α'-Diamine</td>
<td>1477-55-0</td>
<td>&gt;=10 - &lt;30</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol</td>
<td>80-05-7</td>
<td>&gt;=10 - &lt;30</td>
</tr>
<tr>
<td>Poly(oxypropylene) diamine MW 230</td>
<td>9046-10-0</td>
<td>&gt;=10 - &lt;30</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>100-51-6</td>
<td>&gt;=10 - &lt;30</td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>2855-13-2</td>
<td>&gt;=10 - &lt;30</td>
</tr>
<tr>
<td>Trimethyl-1,6-Hexanediadine</td>
<td>25620-58-0</td>
<td>&gt;=5 - &lt;10</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Protection of first aid personnel: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Version: 1.1 Date of issue/Date of revision: 04/07/2013 Date of previous issue: 04/07/2013
5. Fire-fighting measures

Flammability of the product: In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media

Suitable: Use an extinguishing agent suitable for the surrounding fire.
Not suitable: None known.

Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous thermal decomposition products: Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- nitrogen oxides

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8 of SDS).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13 of SDS). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

7. Handling and storage

Handling: Put on appropriate personal protective equipment (see section 8 of SDS). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and
face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-Xylene-α, α'-Diamine</td>
<td>ACGIH TLV (1994-09-01) Ceiling Limit Value 0.1 mg/m3</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol</td>
<td>ACGIH TLV Time Weighted Average (TWA) 5 mg/m3</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL Time Weighted Average (TWA) 5 mg/m3 (respirable particulate)</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL Time Weighted Average (TWA) 15 mg/m3 (total dust)</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td></td>
</tr>
</tbody>
</table>

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Engineering measures: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before
reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protection**

**Respiratory**

- Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
- Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hands**

- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Eyes**

- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

**Skin**

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Environmental exposure controls**

- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

---

**9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**Appearance**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Blue.</td>
</tr>
</tbody>
</table>

- Odor: Amine-like.
- Odor threshold: Not available
- pH: Not available
- Melting point/freezing point: Not available
- Initial boiling point and boiling range: 200 °C
- Flash point: 100 °C (ISO 2719)

- Evaporation rate: Not available
- Flammability (solid, gas): Not available
- Burning time: Not available
- Burning rate: Not available
- Upper/lower flammability or explosive limits:
  - **Lower**: Not available
  - **Upper**: Not available
Vapor pressure : 0.3 hPa @ 20 °C
Vapor density : Not available
Relative density : Not available
Solubility(ies) : Not available
Solubility in water : Negligible
Partition coefficient: n-octanol/water : Not available
Auto-ignition temperature : Not available
Decomposition temperature : Not available
Viscosity : Dynamic:- Not available
Kinematic:- Not available

9.2 Other information
No additional information.

10. Stability and reactivity
Reactivity : Stable under normal conditions.
Chemical stability : The product is stable.
Conditions to avoid : No specific data.
Incompatible materials : No specific data.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-Xylene.-a., a`-Diamine</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>930 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation</td>
<td>Rat</td>
<td>3.89 mg/l 700 ppm</td>
<td>1 h</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation</td>
<td>Rat</td>
<td>2.4 mg/l</td>
<td>4 h</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation</td>
<td>Rat - Female</td>
<td>0.8 mg/l</td>
<td>4 h</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2,000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>4,4`-Isopropylidenephilone</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3,250 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>3,000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Poly(oxypropylene) diamine MW 230</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2,880 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2,980 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1,230 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation</td>
<td>Rat</td>
<td>&gt; 4.178 mg/l</td>
<td>4 h</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2,000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1,030 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Trimethyl-1,6-Hexanediamine</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>910 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary : Not available
### Chronic toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4'-Isopropylidenediphenol</td>
<td>-</td>
<td>-</td>
<td>300 ppm</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:** Liver and questionable kidney and bladder effects were observed in animal feeding studies. Toxic levels of exposure resulted in weight loss in laboratory animals with other effects related to the weight loss as a consequence.

**Conclusion/Summary:** Not available

### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4'-Isopropylidenediphenol</td>
<td>Skin - Erythema/Escar 404 Acute Dermal Irritation/Corrosion</td>
<td>Rabbit</td>
<td>0</td>
<td>4 hrs</td>
<td>1 - 72 hrs</td>
</tr>
<tr>
<td></td>
<td>Skin - Edema 404 Acute Dermal Irritation/Corrosion</td>
<td>Rabbit</td>
<td>0</td>
<td>4 hrs</td>
<td>1 - 72 hrs</td>
</tr>
<tr>
<td></td>
<td>eyes - Cornea opacity 405 Acute Eye Irritation/Corrosion</td>
<td>Rabbit</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>eyes - Iris lesion 405 Acute Eye Irritation/Corrosion</td>
<td>Rabbit</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>eyes - Redness of the conjunctivae 405 Acute Eye Irritation/Corrosion</td>
<td>Rabbit</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>eyes - Edema of the conjunctivae 405 Acute Eye Irritation/Corrosion</td>
<td>Rabbit</td>
<td>1 - 2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**
- Skin: Not available
- Eyes: Not available
- Respiratory: Not available

### Sensitization

**Conclusion/Summary**
- Skin: Not available
- Respiratory: Not available

### Carcinogenicity

**Conclusion/Summary**: Not available

### Mutagenicity

**Conclusion/Summary**: Not available

*Version: 1.1*  
*Date of issue/Date of revision: 04/07/2013*  
*Date of previous issue: 04/07/2013*
Teratogenicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4'-Isopropylidenediphenol</td>
<td>- - -</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Remarks:** Another study on the effects of laboratory rats and mice exposed during pregnancy concluded that even doses high enough to be toxic to the pregnant animals did not alter fetal development of the pups.

Conclusion/Summary: Not available

Reproductive toxicity

Conclusion/Summary: Not available

**SECTION 12: Ecological information**

12.1 Toxicity

Ecotoxicity: No known significant effects or critical hazards.

Aquatic ecotoxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4'-Isopropylidenediphenol</td>
<td>Acute LC50 4.6 mg/l Fresh water</td>
<td>Fish - Fathead minnow</td>
<td>96 h</td>
</tr>
<tr>
<td></td>
<td>Acute NOEC 0.016 mg/l Fresh water</td>
<td>Fish - Fathead minnow</td>
<td>444 d</td>
</tr>
<tr>
<td></td>
<td>Chronic ecotoxicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute EC50 1 - 16 mg/l Fresh water</td>
<td>Aquatic invertebrates. Water flea</td>
<td>48 h</td>
</tr>
<tr>
<td></td>
<td>Acute NOEC 1.8 mg/l Fresh water</td>
<td>Aquatic invertebrates. Water flea</td>
<td>48 h</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2.73 mg/l Fresh water</td>
<td>Aquatic plants - Microalgae</td>
<td>96 h</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.016 mg/l Fresh water</td>
<td>Fish - Fathead minnow</td>
<td>444 d</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 1.8 mg/l Fresh water</td>
<td>Aquatic invertebrates. Water flea</td>
<td>-</td>
</tr>
</tbody>
</table>

Benzyl Alcohol

| | Acute LC50 460,000 µg/l Fresh water | Fish - Fathead minnow | 96 h |

Conclusion/Summary: Not available

12.2 Persistence and degradability

Conclusion/Summary: Not available

Partition coefficient: n-octanol/water: Not available

Other adverse effects: No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental...
protection and waste disposal legislation and any regional local authority requirements. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

### 14. Transport information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN/NA number</th>
<th>Proper shipping name</th>
<th>Classes/PG</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG</td>
<td>2735</td>
<td>POLYAMINES, LIQUID, CORROSIVE, N.O.S.</td>
<td>Class 8 III</td>
<td></td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>2735</td>
<td>POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-XYLILENEDIAMINE)</td>
<td>Class 8 III</td>
<td></td>
</tr>
<tr>
<td>IATA (Cargo)</td>
<td>2735</td>
<td>POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-XYLILENEDIAMINE)</td>
<td>Class 8 III</td>
<td></td>
</tr>
</tbody>
</table>

*PG : Packing group

### 15. Regulatory information

**United States**

**HCS Classification**
- Toxic material
- Corrosive material
- Sensitizing material
- Target organ effects

**U.S. Federal regulations**
- United States - TSCA 12(b) - Chemical export notification: None required.
- United States - TSCA 5(a)2 - Final significant new use rules: Not listed
- United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed

*Version: 1.1  Date of issue/Date of revision: 04/07/2013  Date of previous issue: 04/07/2013*
United States - TSCA 5(e) - Substances consent order: Not listed
SARA 302 Extremely Hazardous Substances: None required.
SARA 302/304/311/312 hazardous chemicals: None required.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)

SARA 313

<table>
<thead>
<tr>
<th>Form R - Reporting requirements</th>
<th>Product name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phenol, 4,4′-(1-methylene)bis-</td>
<td>80-05-7</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Supplier notification</td>
<td>Phenol, 4,4′-(1-methylene)bis-</td>
<td>80-05-7</td>
<td>10 - 30</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

United States inventory (TSCA 8b): All components are listed or exempted.

Canada

WHMIS (Canada): Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class D-2B: Material causing other toxic effects (Toxic). Class E: Corrosive material

Canadian lists

Canadian NPRI: The following components are listed: Phenol, 4,4′-(1-methylene)bis-

CEPA Toxic substances: The following components are listed: Phenol, 4,4′-(1-methylene)bis-

Canada inventory: At least one component is not listed in DSL but all such components are listed in NDSL.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists: Philippines inventory (PICCS): All components are listed or exempted.
New Zealand Inventory (NZInC): Not determined.
Korea inventory: All components are listed or exempted.
Japan inventory: Not determined.
China inventory (IECSC): All components are listed or exempted.
Australia inventory (AICS): Not determined.
Australia inventory (AICS): Not determined.

Version: 1.1 Date of issue/Date of revision: 04/07/2013 Date of previous issue: 04/07/2013
16. Other information

Label requirements: CAUSES DIGESTIVE TRACT, EYE AND SKIN BURNS. HARMFUL IF INHALED. INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CONTAINS MATERIAL WHICH MAY CAUSE HERITABLE GENETIC EFFECTS.

Hazardous Material Information System III (U.S.A.):

<table>
<thead>
<tr>
<th>Health</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

Date of printing: 08/07/2013
Date of issue: 04/07/2013
Date of previous issue: 04/07/2013
Version: 1.1
Prepared by: WAGERSKS

Notice to reader

The information provided herein was believed by Momentive Specialty Chemicals ("Momentive") to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Momentive are subject to Momentive's terms and conditions of sale. MOMENTIVE MAKES NO WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY MOMENTIVE, except that the product shall conform to Momentive's specifications. Nothing contained herein constitutes an offer for the sale of any product.

® and (TM) Licensed trademarks of Momentive Specialty Chemicals Inc.