Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

EPIKURE™ Curing Agent MGS LH 285

Revision Date 15-AUG-2012

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name: EPIKURE™ Curing Agent MGS LH 285
SDS Number: 16S-00025
Product Type: Curing Agent

1.2. Relevant identified uses of the substance or mixture and uses advised against
Product use: Epoxy Resin Systems

1.3. Details of the supplier of the safety data sheet
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

1.4. Emergency telephone number
Emergency telephone:
CARECHEM24
+44(0)1235 239 670

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Directive 1999/45/EC [DPD]
The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification:
R52/53
R43
C, R34
Xn, R21/22

Human health hazards: Harmful in contact with skin and if swallowed. Causes burns. May cause sensitization by skin contact.

Environmental hazards: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See section 16 for the full text of the R-phrases declared above
2.2. Label elements

Symbol(s) : Corrosive

Risk phrases : R21/22 - Harmful in contact with skin and if swallowed.
R34 - Causes burns.
R43 - May cause sensitization by skin contact.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S23 - Do not breathe gas/fumes/vapor/spray.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 - Wear suitable protective clothing, gloves and eyeface protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60 - This material and its container must be disposed of as hazardous waste.

Contains : 3-aminomethyl-3,5,5-trimethylcyclohexylamine,
Product use : Industrial applications

2.3. Other hazards

Based on the substance information, the mixture is not expected to meet the criteria for PBT/vPvB.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient name</td>
<td>REG # /CAS #/EC #</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>3-aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>2855-13-2/220-666-8</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>benzyl alcohol</td>
<td>100-51-6/202-859-9</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>4-nonylphenol, branched</td>
<td>C; N;</td>
</tr>
<tr>
<td>------------------------</td>
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</tbody>
</table>

See Section 16 for the full text of the H statements and R phrases declared above.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**First aid measures**

**Inhalation**: Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately. If unconscious, place in recovery position and get medical attention immediately. 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.

**Ingestion**: Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention immediately. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately. Chemical burns must be treated promptly by a physician.

4.2. Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

Inhalation: No specific data.

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,

See section 11 for more detailed information on health effects and symptoms.

4.3. Indication of immediate medical attention and special treatment needed

**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.

**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.

### SECTION 5: Fire-fighting measures

5.1. Extinguishing media

**Suitable**

Use an extinguishing agent suitable for the surrounding fire.

**Not suitable**

None known.

5.2. Special hazards arising from the substance or mixture

**Hazards from the substance or mixture**

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

**Hazardous thermal decomposition products**

Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides.

5.3. Special protective actions for fire-fighters

**Special precautions for fire-fighters**

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. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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).

6.2. 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). Water polluting material.

6.3. Methods and material for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or 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). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Put on appropriate personal protective equipment (see section 8). 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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

7.2. Conditions for safe storage, including any incompatibilities

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) 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.

**Packaging materials**
Recommended: Use original container.

**Specific uses**
Epoxy Resin Systems

### 7.3. Specific end use(s)
Not applicable.

<table>
<thead>
<tr>
<th>SECTION 8: Exposure controls/personal protection</th>
</tr>
</thead>
</table>

#### 8.1. Control parameters

**Exposure limit values**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Occupational exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>No exposure limit value known.</td>
</tr>
</tbody>
</table>

#### 8.2. Exposure controls

**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 European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

**Occupational exposure controls**
If user operations generate dust, fumes, gas, vapor or mist, 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection**
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.

**Hand protection**
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.
Eye protection: 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.

Skin protection: 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
- Physical state: Liquid
- Color: Not determined
- Odor: Not determined
- Odor threshold: Not determined
- pH: Not determined
- Initial boiling point and boiling range: Greater than 200 °C (392 °F)
- Flash point: Greater than 100 °C (212 °F)
- Evaporation rate: Not determined
- Flammability: Not determined

Explosion limits
- Upper: Not determined
- Lower: Not determined
- Vapor pressure: Not determined
- Vapor density: Not determined
- Relative density: Not determined
- Solubility [Water]: Soluble
- Partition coefficient: Not determined
- n-octanol/water: Not determined
- Auto-ignition temperature: Not determined
- Decomposition temperature: Not determined
- Viscosity: Kinematic-Not determined
  Dynamic- Approx. 50 - 100 mPa·s @25 °C (77 °F) ISO 9371
- Explosive properties: Not determined
- Oxidising properties: Not determined

9.2. Other information
Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions.

10.2. Chemical stability
The product is stable.

10.3. Possibility of hazardous reactions
Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid

No specific data.

10.5. Incompatible materials

No specific data.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Summary of health effects based on the conventional method of Directive 1999/45/EC
Harmful in contact with skin and if swallowed. Causes burns. May cause sensitization by skin contact.

11.1. Information on toxicological effects

EPIKURE™ Curing Agent MGS LH 285

Acute toxicity

Oral
No applicable toxicity data.

Dermal
No applicable toxicity data.

Inhalation
No applicable toxicity data.

Other routes
No applicable toxicity data.

Irritation/Corrosion
No applicable toxicity data.

Skin sensitization
No applicable toxicity data.

Respiratory sensitization
No applicable toxicity data.

Repeated Dose Toxicity
No applicable toxicity data.

Carcinogenicity
No applicable toxicity data.

Mutagenicity
No applicable toxicity data.

Toxic to Reproduction
No applicable toxicity data.
3-aminomethyl-3,5,5-trimethylcylohexylamine

Acute toxicity

Oral
LD50: Rat 1,030 mg/kg;

Dermal
No applicable toxicity data. No known significant effects or critical hazards.

Inhalation
No applicable toxicity data.

Other routes
No applicable toxicity data. No known significant effects or critical hazards.

Skin corrosion/irritation
No applicable toxicity data. No known significant effects or critical hazards.

Serious eye damage/irritation
No applicable toxicity data. No known significant effects or critical hazards.

Skin sensitization
No applicable toxicity data. No known significant effects or critical hazards.

Respiratory sensitization
No applicable toxicity data. No known significant effects or critical hazards.

Germ cell mutagenicity
No applicable toxicity data. No known significant effects or critical hazards.

Carcinogenicity
No applicable toxicity data. No known significant effects or critical hazards.

Reproductive toxicity
No applicable toxicity data. No known significant effects or critical hazards.

Developmental / Teratogenicity
No applicable toxicity data. No known significant effects or critical hazards.

STOT-single exposure
No applicable toxicity data. No known significant effects or critical hazards.

STOT-repeated exposure
No applicable toxicity data. No known significant effects or critical hazards.

Aspiration hazard
No applicable toxicity data. No known significant effects or critical hazards.

Other information
No applicable toxicity data. No known significant effects or critical hazards.

benzyl alcohol

Acute toxicity

Oral
LD50: Rat 1,230 mg/kg;

Dermal
LD50: Rabbit 2,000 mg/kg;
Inhalation
LC50: Rat > 4.178 mg/l/4 h

Other routes
No applicable toxicity data. No known significant effects or critical hazards.

Skin corrosion/irritation
No applicable toxicity data. No known significant effects or critical hazards.

Serious eye damage/irritation
No applicable toxicity data. No known significant effects or critical hazards.

Skin sensitization
No applicable toxicity data. No known significant effects or critical hazards.

Respiratory sensitization
No applicable toxicity data. No known significant effects or critical hazards.

Germ cell mutagenicity
No applicable toxicity data. No known significant effects or critical hazards.

Carcinogenicity
No applicable toxicity data. No known significant effects or critical hazards.

Reproductive toxicity
No applicable toxicity data. No known significant effects or critical hazards.

Developmental / Teratogenicity
No applicable toxicity data. No known significant effects or critical hazards.

STOT-single exposure
No applicable toxicity data. No known significant effects or critical hazards.

STOT-repeated exposure
No applicable toxicity data. No known significant effects or critical hazards.

Aspiration hazard
No applicable toxicity data. No known significant effects or critical hazards.

Other information
No applicable toxicity data. No known significant effects or critical hazards.

4-nonylphenol, branched

Acute toxicity

Oral
LD50: Rat 1,300 mg/kg;

Dermal
LDLo: Rabbit 3,160 mg/kg;

Inhalation
No applicable toxicity data.

Other routes
No applicable toxicity data. No known significant effects or critical hazards.

Skin corrosion/irritation
No applicable toxicity data. No known significant effects or critical hazards.
Serious eye damage/irritation
No applicable toxicity data. No known significant effects or critical hazards.

Skin sensitization
No applicable toxicity data. No known significant effects or critical hazards.

Respiratory sensitization
No applicable toxicity data. No known significant effects or critical hazards.

Germ cell mutagenicity
No applicable toxicity data. No known significant effects or critical hazards.

Carcinogenicity
No applicable toxicity data. No known significant effects or critical hazards.

Reproductive toxicity
No applicable toxicity data. No known significant effects or critical hazards.

Developmental / Teratogenicity
No applicable toxicity data. No known significant effects or critical hazards.

STOT-single exposure
No applicable toxicity data. No known significant effects or critical hazards.

STOT-repeated exposure
No applicable toxicity data. No known significant effects or critical hazards.

Aspiration hazard
No applicable toxicity data. No known significant effects or critical hazards.

Other information
No applicable toxicity data. No known significant effects or critical hazards.

SECTION 12: Ecological information

Summary of environmental hazards based on the conventional method of Directive 1999/45/EC
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

EPIKURE ™ Curing Agent MGS LH 285

No applicable toxicity data.

3-aminomethyl-3,5,5-trimethylcyclohexylamine

No applicable toxicity data. No known significant effects or critical hazards.

benzyl alcohol

Fresh water LC50: 460 mg/l/96 h Fathead minnow

4-nonylphenol, branched

Fresh water LC50: 0.13825 mg/l/96 h Fathead minnow
Fresh water LC50: 0.1351 mg/l/96 h Bluegill

12.2. Persistence and degradability
EPIKURE™ Curing Agent MGS LH 285

No data available.

3-aminomethyl-3,5,5-trimethylcyclohexylamine

No data available.

benzyl alcohol

No data available.

4-nonylphenol, branched

No data available.

12.3. Bioaccumulative potential

EPIKURE™ Curing Agent MGS LH 285

No data available.

3-aminomethyl-3,5,5-trimethylcyclohexylamine

No data available.

benzyl alcohol

No data available.

4-nonylphenol, branched

No data available.

12.4. Mobility in soil

EPIKURE™ Curing Agent MGS LH 285

No data available.

3-aminomethyl-3,5,5-trimethylcyclohexylamine

No data available.

benzyl alcohol

No data available.

4-nonylphenol, branched

No data available.

12.5. Results of PBT and vPvB assessment
EPIKURE™ Curing Agent MGS LH 285

Based on the substance information, the mixture is not expected to meet the criteria for PBT/vPvB.

3-aminomethyl-3,5,5-trimethylcyclohexylamine

No data available.

benzyl alcohol

No data available.

4-nonylphenol, branched

No data available.

12.6. Other adverse effects

EPIKURE™ Curing Agent MGS LH 285

No known adverse effects.

3-aminomethyl-3,5,5-trimethylcyclohexylamine

No known adverse effects.

benzyl alcohol

No known adverse effects.

4-nonylphenol, branched

No known adverse effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste: The classification of the product may meet the criteria for a hazardous waste.

SECTION 14: Transport information
<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>14.1. UN number</th>
<th>14.2. UN proper shipping name</th>
<th>14.3. Transport hazard class(es)</th>
<th>14.4. Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>2735</td>
<td>POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE (MIXTURE))</td>
<td>8</td>
<td>III</td>
</tr>
<tr>
<td>RID</td>
<td>2735</td>
<td>POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE (MIXTURE))</td>
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<td>III</td>
</tr>
<tr>
<td>ICAO/IATA</td>
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<td>POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE (MIXTURE))</td>
<td>8</td>
<td>III</td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>2735</td>
<td>POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE (MIXTURE))</td>
<td>8</td>
<td>III</td>
</tr>
</tbody>
</table>

**14.5. Environmental hazards**

Environmentally hazardous and/or Marine Pollutant : No.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU regulations**

SEVESO Directive 96/82/EC : Ingredient name 3-aminomethyl-3,5,5-trimethylcyclohexylamine benzyl alcohol 4-nonylphenol, branched Listed No. No. yes

REACH Annex XVII : Not listed

Biocides - Annex I to Directive 98/8/EC : Not listed

Prior Informed Consent. List of chemicals subject to the international PIC procedure (Part I, II, III) : The following components are listed: 4-nonylphenol, branched

Integrated pollution prevention and control list (IPPC) - Air : Not listed

Integrated pollution prevention : Not listed
and control list (IPPC) - Water

**Germany**

Hazard class for water: WGK 2, Appendix No. 4

**International regulations**

Chemical inventories

- REACH Status: The substance(s) in this product has (have) been Pre-Registered and/or Registered, or are exempted from registration, according to Regulation (EC) No. 1907/2006 (REACH).
- Australia inventory (AICS): Not determined.
- Canada inventory: At least one component is not listed in DSL but all such components are listed in NDSL.
- Japan inventory: Not determined.
- China inventory (IECSC): All components are listed or exempted.
- Korea inventory: All components are listed or exempted.
- New Zealand Inventory (NZIoC): Not determined.
- Philippines inventory (PICCS): All components are listed or exempted.
- United States inventory (TSCA 8b): All components are listed or exempted.

**15.2. Chemical Safety Assessment**

Chemical Safety Assessment not applicable.

### SECTION 16: Other information

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Full text of abbreviated H statements**

- H302 - Harmful if swallowed.
- H302 - Harmful if swallowed.
- H317 - May cause an allergic skin reaction.
- H314 - Causes severe skin burns and eye damage.
- H412 - Harmful to aquatic life with long lasting effects.
- H332 - Harmful if inhaled.
- H302 - Harmful if swallowed.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.
- H410 - Very toxic to aquatic life with long lasting effects.
- H400 - Very toxic to aquatic life.

**Full text of classifications (CLP)**

- Acute toxicity Dermal Category 4 - H302
- Acute toxicity Oral Category 4 - H302
- SKIN SENSITIZATION Category 1 - H317
- SKIN CORROSION/IRRITATION Category 1B - H314
- AQUATIC TOXICITY (CHRONIC) Category 3 - H412
- Acute toxicity Inhalation (unknown test type) Category 4 - H332
- Acute toxicity Oral Category 4 - H302
- Acute toxicity Oral Category 4 - H302
- SKIN CORROSION/IRRITATION Category 1B - H314
- TOXIC TO REPRODUCTION Category 2 - H361fd
- AQUATIC TOXICITY (CHRONIC) Category 1 - H410
- AQUATIC TOXICITY (ACUTE) Category 1 - H400

**Full text of abbreviated R phrases**

- R62: Possible risk of impaired fertility.
- R63 R63: Possible risk of harm to the unborn child.
- R22: Harmful if swallowed.
- R20/22: Harmful by inhalation and if swallowed.
- R21/22: Harmful in contact with skin and if swallowed.
R34- Causes burns.
R43- May cause sensitization by skin contact.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of classification (DSD/DPD)**
- C Corrosive
- Xn Harmful
- N Dangerous for the environment

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II**

**History**
- Date of printing: 10.01.2013
- Date of issue/Date of revision: 15.08.2012
- Date of previous issue: 29.02.2012
- Version: 2.0

**Notice to reader**

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