Barrier 90 Comp A

Section 1. Identification

GHS product identifier : Barrier 90 Comp A
Product code : 2528
Product description : Paint.
Other means of identification : Not available.
Product type : Liquid.

Supplier's details : Jotun Paints, Inc.
9203 Highway 23
Belle Chasse, LA 70037
Telephone: (800) 229-3538 or +1 504-394-3538
SDSJotun@jotun.com

Emergency telephone number (with hours of operation) : 1-800-424-9300 (Staffed 24/7)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture :
- FLAMMABLE LIQUIDS - Category 3
- SKIN IRRITATION - Category 2
- EYE IRRITATION - Category 2A
- SKIN SENSITIZATION - Category 1
- SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2
- AQUATIC HAZARD (ACUTE) - Category 1
- AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements
Hazard pictograms :

Signal word : Warning.
Hazard statements :
- Flammable liquid and vapor.
- Causes serious eye irritation.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May cause damage to organs through prolonged or repeated exposure. (hearing organs)
- Very toxic to aquatic life with long lasting effects.

Precautionary statements
Prevention :
- Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Avoid release to the environment. Do not breathe vapor or spray. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

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Section 2. Hazards identification

Response:
Collect spillage. Get medical attention if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. 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 attention.

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

Disposal:
Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified:
None known.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of identification</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS number/other identifiers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Product code</td>
<td>2528</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc</td>
<td>≥75 - ≤90</td>
<td>7440-66-6</td>
</tr>
<tr>
<td>xylene</td>
<td>≤10</td>
<td>1330-20-7</td>
</tr>
<tr>
<td>epoxy resin (MW 700-1200)</td>
<td>≤5</td>
<td>25036-25-3</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>≤3</td>
<td>100-41-4</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>≤3</td>
<td>1314-13-2</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>≤3</td>
<td>107-98-2</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

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.

Inhalation:
Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention following exposure or if feeling unwell. 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:
Wash with plenty of soap and 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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
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Section 4. First aid measures

**Ingestion**
- Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention following exposure or if feeling unwell. 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.

**Protection of first-aiders**
- No action shall be taken involving any personal risk or without suitable training. 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**
- Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- No specific treatment.

**Over-exposure signs/symptoms**
- **Eye contact**: Causes serious eye irritation.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: Causes skin irritation. May cause an allergic skin reaction.
- **Ingestion**: No known significant effects or critical hazards.

**Potential acute health effects**
- **Eye contact**: Causes serious eye irritation.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: Causes skin irritation. May cause an allergic skin reaction.
- **Ingestion**: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**
- **Eye contact**: Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- **Inhalation**: No specific data.
- **Skin contact**: Adverse symptoms may include the following:
  - irritation
  - redness
- **Ingestion**: No specific data.

**Indication of immediate medical attention and special treatment needed, if necessary**
- **Notes to physician**: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- **Specific treatments**: No action shall be taken involving any personal risk or without suitable training. 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.

**See toxicological information (Section 11)**

Section 5. Fire-fighting measures

**Extinguishing media**
- **Suitable extinguishing media**: Use dry chemical, CO₂, water spray (fog) or foam.
- **Unsuitable extinguishing media**: Do not use water jet.

**Specific hazards arising from the chemical**
- Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products**
- Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - metal oxide/oxides

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Section 5. Fire-fighting measures

**Special protective actions 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**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

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**: 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders**: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**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. May be harmful to the environment if released in large quantities. Collect spillage.

**Methods and materials for containment and cleaning up**

**Small spill**: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. 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

**Precautions for safe handling**

**Protective measures**: Put on appropriate personal protective equipment (see Section 8). 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. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene**: 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. See also Section 8 for additional information on hygiene measures.

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Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc</td>
<td>None</td>
</tr>
<tr>
<td>Xylene</td>
<td>ACGIH TLV (United States, 3/2018). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</td>
</tr>
<tr>
<td>Epoxy resin (MW 700-1200)</td>
<td>None</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Fume TWA: 10 mg/m³ 8 hours. Form: Fume STEL: 10 mg/m³ 15 minutes. Form: Fume OSHA PEL 1989 (United States, 3/1989). STEL: 10 mg/m³ 15 minutes. Form: Fume TWA: 5 mg/m³ 8 hours. Form: Fume TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Fume TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2018).</td>
</tr>
</tbody>
</table>

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# Section 8. Exposure controls/personal protection

| Substance | STEL: 10 mg/m³ 15 minutes. Form: Respirable fraction  
TWA: 2 mg/m³ 8 hours. Form: Respirable fraction |
|-----------|--------------------------------------------------|
| 1-methoxy-2-propanol | **ACGIH TLV (United States, 3/2018).**  
STEL: 369 mg/m³ 15 minutes.  
STEL: 100 ppm 15 minutes.  
TWA: 184 mg/m³ 8 hours.  
TWA: 50 ppm 8 hours. |
| | **NIOSH REL (United States, 10/2016).**  
STEL: 540 mg/m³ 15 minutes.  
STEL: 150 ppm 15 minutes.  
TWA: 360 mg/m³ 10 hours.  
TWA: 100 ppm 10 hours. |
| | **OSHA PEL 1989 (United States, 3/1989).**  
STEL: 540 mg/m³ 15 minutes.  
STEL: 150 ppm 15 minutes.  
TWA: 360 mg/m³ 8 hours.  
TWA: 100 ppm 8 hours. |

### 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. 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.

- There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
- The breakthrough time must be greater than the end use time of the product.
- The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
- Gloves should be replaced regularly and if there is any sign of damage to the glove material.
- Always ensure that gloves are free from defects and that they are stored and used correctly.
- The performance or effectiveness of the glove may be reduced by physical/chemical exposure.

### Appropriate engineering controls
- 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### 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.

### Individual protection measures

#### 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.

#### Eye/face 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

#### 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. 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.

- There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
- The breakthrough time must be greater than the end use time of the product.
- The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
- Gloves should be replaced regularly and if there is any sign of damage to the glove material.
- Always ensure that gloves are free from defects and that they are stored and used correctly.
- The performance or effectiveness of the glove may be reduced by physical/chemical exposure.

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Section 8. Exposure controls/personal protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Wear suitable respirators according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Body 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state: Liquid.
Color: Various colors.
Odor: Characteristic.
Odor threshold: Not available.
pH: Not available.
Melting point: Not available.
Boiling point: Lowest known value: 120.17°C (248.3°F) (1-methoxy-2-propanol). Weighted average: 134.09°C (273.4°F)
Flash point: Closed cup: 27°C (80.6°F)
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: 3.2 g/cm³ 26.7 pounds/gallon
Solubility: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Kinematic (40°C (104°F)): >0.205 cm²/s (>20.5 mm²/s)

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability: The product is stable.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Section 10. Stability and reactivity

Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials

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

Section 11. Toxicological information

Information on toxicological effects

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>xylene</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>20 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4300 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>4300 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TDL0 Dermal</td>
<td>Rabbit</td>
<td>4000 ppm</td>
<td></td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>LC50 Inhalation Gas.</td>
<td>Rabbit</td>
<td>&gt;5000 mg/kg</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>3500 mg/kg</td>
<td></td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>13 g/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rabbit</td>
<td>6600 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

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>zinc</td>
<td>Skin - Mild irritant</td>
<td>Human</td>
<td>-</td>
<td>72 hours 300 Micrograms Intermittent 24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

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<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>Category 2</td>
<td>Not determined</td>
<td>hearing organs</td>
</tr>
</tbody>
</table>

## Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

### Information on the likely routes of exposure

- **Inhalation**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.
- **Skin contact**: Causes skin irritation. May cause an allergic skin reaction.
- **Eye contact**: Causes serious eye irritation.

### Potential acute health effects

- **Eye contact**: Causes serious eye irritation.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: Causes skin irritation. May cause an allergic skin reaction.
- **Ingestion**: No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- **Eye contact**: Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- **Inhalation**: No specific data.
- **Skin contact**: Adverse symptoms may include the following:
  - irritation
  - redness
- **Ingestion**: No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

#### Long term exposure

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

### Potential chronic health effects

Not available.

- **General**: May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
- **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.

### Numerical measures of toxicity

#### Acute toxicity estimates
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Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>39087.2 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>14093.9 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>105.7 mg/l</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc</td>
<td>Acute LC50 330 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 0.78 mg/l Fresh water</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Acute EC50 7.2 mg/l</td>
<td>Algae</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2.93 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 4.2 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>Acute LC50 1.1 ppm Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
<tr>
<td>xylene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td>3.12</td>
<td>8.1 to 25.9</td>
<td>low</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>3.6</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>&lt;1</td>
<td>60960</td>
<td>high</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td></td>
<td></td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

| Soil/water partition coefficient (K_{oc}) | Not available. |

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Date of issue : 25.04.2019
Section 13. Disposal considerations

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>Listed</td>
<td>U239</td>
</tr>
</tbody>
</table>

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>Mexico Classification</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>1263</td>
<td>1263</td>
<td>1263</td>
<td>1263</td>
<td>1263</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Paint</td>
<td>Paint</td>
<td>Paint</td>
<td>Paint</td>
<td>Paint</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes. The environmentally hazardous substance mark is not required.</td>
<td>Yes.</td>
<td>Yes. The environmentally hazardous substance mark is not required.</td>
</tr>
</tbody>
</table>

Additional information

DOT Classification: **Reportable quantity**

1273.6 lbs / 578.21 kg [47.733 gal / 180.69 L]

Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG Classification: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).

The marine pollutant mark is not required when transported by road or rail.

Mexico Classification: -

ADR/RID: Tunnel restriction code: (D/E) Hazard identification number: 30 Special provisions: 640E

IMDG: Emergency schedules (EmS): F-E, S-E Marine pollutant: Yes.

IATA: The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user: **Transport within user’s premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not available.

Date of issue: 25.04.2019
Section 15. Regulatory information

U.S. Federal regulations
- Clean Water Act (CWA) 307: zinc oxide; zinc; cadmium; lead; ethylbenzene; copper, [29h,31h-phthalocyaninato(2-)-n29,n30,n31,n32]-, (sp-4-1)-
- Clean Water Act (CWA) 311: xylene; ethylbenzene

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

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

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>cadmium</td>
<td>7440-43-9</td>
<td>0.000080697</td>
</tr>
<tr>
<td>lead</td>
<td>7439-92-1</td>
<td>0.0080697</td>
</tr>
<tr>
<td>xylene</td>
<td>1330-20-7</td>
<td>7.8048</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>100-41-4</td>
<td>2.6016</td>
</tr>
</tbody>
</table>

Clean Air Act Section 602
- Class I Substances: Not listed
- Class II Substances: Not listed
- DEA List I Chemicals (Precursor Chemicals): Not listed
- DEA List II Chemicals (Essential Chemicals): Not listed

SARA 302/304
- Composition/information on ingredients: No products were found.

SARA 304 RQ: Not applicable.

SARA 311/312
- Classification: Fire hazard
  - Immediate (acute) health hazard
  - Delayed (chronic) health hazard

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td>≤10</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>epoxy resin (MW 700-1200)</td>
<td>≤3</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

SARA 313

Form R - Reporting requirements

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc</td>
<td>7440-66-6</td>
<td>≥75</td>
</tr>
<tr>
<td>xylene</td>
<td>1330-20-7</td>
<td>≤10</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>100-41-4</td>
<td>≤3</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>1314-13-2</td>
<td>≤3</td>
</tr>
<tr>
<td>lead</td>
<td>7439-92-1</td>
<td>&lt;0.03</td>
</tr>
<tr>
<td>xylene</td>
<td>7440-66-6</td>
<td>≥75</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>1330-20-7</td>
<td>≤10</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>100-41-4</td>
<td>≤3</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>1314-13-2</td>
<td>≤3</td>
</tr>
</tbody>
</table>

Supplier notification

State regulations

Date of issue: 25.04.2019
**Barrier 90 Comp A**

**Section 15. Regulatory information**

| Massachusetts | : The following components are listed: ZINC OXIDE FUME; ZINC; XYLENE; DIMETHYLBENZENE; ETHYL BENZENE; ETHYL BENZENE; PROPYLENE GLYCOL METHYL ETHER; PROPYLENE GLYCOL MONOMETHYL ETHER |
| New York | : The following components are listed: Zinc; Xylene mixed; Ethybenzene |
| New Jersey | : The following components are listed: ZINC OXIDE; ZINC; XYLENES; BENZENE, DIMETHYL-; ETHYL BENZENE; BENZENE, ETHYL-; PROPYLENE GLYCOL MONOMETHYL ETHER; 1-METHOXY-2-PROPANOL; ETHYL ALCOHOL; ALCOHOL |
| Pennsylvania | : The following components are listed: ZINC OXIDE; ZINC OXIDE FUME; ZINC COMPOUNDS; BENZENE, DIMETHYL-; BENZENE, ETHYL-; 2-PROPANOL, 1-METHOXY--; DENATURED ALCOHOL; ETHANOL |

**California Prop. 65**

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

**WARNING:** This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>Yes.</td>
<td>No.</td>
<td>41 µg/day (ingestion)</td>
<td>No.</td>
</tr>
<tr>
<td>ethanol</td>
<td>Yes.</td>
<td>No.</td>
<td>54 µg/day (inhalation)</td>
<td>No.</td>
</tr>
<tr>
<td>Talc (non-asbestos form)</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>lead</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>cadmium</td>
<td>Yes.</td>
<td>Yes.</td>
<td>15 µg/day (ingestion)</td>
<td>Yes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.05 µg/day (inhalation)</td>
<td>4.1 µg/day (ingestion)</td>
</tr>
</tbody>
</table>

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol (Annexes A, B, C, E)**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**International lists**

**National inventory**

<table>
<thead>
<tr>
<th>Country</th>
<th>: Not determined.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
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<tr>
<td>Malaysia</td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
</tr>
<tr>
<td>Republic of Korea</td>
<td></td>
</tr>
<tr>
<td>Taiwan</td>
<td></td>
</tr>
</tbody>
</table>

**Date of issue** : 25.04.2019
Section 16. Other information

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 3, H226</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Irrit. 2A, H319</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Sens. 1, H317</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT RE 2, H373 (hearing organs)</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Acute 1, H400</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 1, H410</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

History

- Date of printing: 25.04.2019
- Date of issue/Date of revision: 25.04.2019
- Date of previous issue: 18.01.2017
- Version: 1.04

Key to abbreviations

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations

References

- Not available.

Notice to reader

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.