

SAFETY DATA SHEET



Jotun Protects Property

Jotun Accelerator DMA10

Section 1. Identification

GHS product identifier : Jotun Accelerator DMA10

Product code : 21820

Product description : Hardener.

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Use in coatings - Industrial use

Use in coatings - Professional use

Supplier's details : Jotun Paints Inc.
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City Center Three, Suite 300
Houston, TX 77024 USA
Phone number: +1 (713) 860-8241
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
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
ASPIRATION HAZARD - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Hazard pictograms :



Signal word : Danger.

Section 2. Hazards identification

- Hazard statements** : H226 - Flammable liquid and vapor.
 H302 + H332 - Harmful if swallowed or if inhaled.
 H304 - May be fatal if swallowed and enters airways.
 H315 - Causes skin irritation.
 H319 - Causes serious eye irritation.
 H335 - May cause respiratory irritation.
 H351 - Suspected of causing cancer.
 H361 - Suspected of damaging fertility or the unborn child.
 H372 - Causes damage to organs through prolonged or repeated exposure. (hearing organs)
 H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : P201 - Obtain special instructions before use.
 P280 - Wear protective gloves, protective clothing and eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273 - Avoid release to the environment.
 P260 - Do not breathe vapor.
 P270 - Do not eat, drink or smoke when using this product.
- Response** : P308 + P313 - IF exposed or concerned: Get medical advice or attention.
 P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
 P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 - If eye irritation persists: Get medical advice or attention.
- Storage** : P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
 P403 + P235 - Keep cool.
- Disposal** : P501 - 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

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

CAS number/other identifiers

- CAS number** : Not applicable.
- Product code** : 21820

| Ingredient name | % | CAS number |
|----------------------------|-----------|------------|
| styrene | ≥75 - ≤90 | 100-42-5 |
| N,N-dimethylaniline | ≤10 | 121-69-7 |
| 1,4-benzenediol, 2-methyl- | ≤0.022 | 95-71-6 |

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 it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. If necessary, call a poison center or physician. 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. 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.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Harmful if swallowed. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Section 4. First aid measures

- 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.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : 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.

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. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful 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
nitrogen oxides

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.

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.

Section 6. Accidental release measures

- 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). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. 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.

- 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. Store locked up. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------|--|
| styrene | <p>ACGIH TLV (United States, 7/2023). Ototoxicant. STEL: 20 ppm 15 minutes. TWA: 10 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2020). STEL: 425 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 215 mg/m³ 10 hours. TWA: 50 ppm 10 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). STEL: 425 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 215 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</p> <p>OSHA PEL Z2 (United States, 2/2013). AMP: 600 ppm 5 minutes.</p> |

Section 8. Exposure controls/personal protection

N,N-dimethylaniline

CEIL: 200 ppm
 TWA: 100 ppm 8 hours.
CAL OSHA PEL (United States, 5/2018).
Absorbed through skin.
 STEL: 425 mg/m³ 15 minutes.
 STEL: 100 ppm 15 minutes.
 C: 500 ppm
 TWA: 215 mg/m³ 8 hours.
 TWA: 50 ppm 8 hours.
ACGIH TLV (United States, 7/2023).
Absorbed through skin.
 TWA: 5 ppm 8 hours.
 TWA: 25 mg/m³ 8 hours.
 STEL: 10 ppm 15 minutes.
 STEL: 50 mg/m³ 15 minutes.
OSHA PEL 1989 (United States, 3/1989).
Absorbed through skin.
 TWA: 5 ppm 8 hours.
 TWA: 25 mg/m³ 8 hours.
 STEL: 10 ppm 15 minutes.
 STEL: 50 mg/m³ 15 minutes.
NIOSH REL (United States, 10/2020).
Absorbed through skin.
 TWA: 5 ppm 10 hours.
 TWA: 25 mg/m³ 10 hours.
 STEL: 10 ppm 15 minutes.
 STEL: 50 mg/m³ 15 minutes.
OSHA PEL (United States, 5/2018).
Absorbed through skin.
 TWA: 5 ppm 8 hours.
 TWA: 25 mg/m³ 8 hours.
CAL OSHA PEL (United States, 5/2018).
Absorbed through skin.
 STEL: 50 mg/m³ 15 minutes.
 STEL: 10 ppm 15 minutes.
 TWA: 25 mg/m³ 8 hours.
 TWA: 5 ppm 8 hours.

1,4-benzenediol, 2-methyl-

None

Biological exposure indices

| Ingredient name | Exposure indices |
|---------------------|--|
| styrene | ACGIH BEI (United States, 7/2023) BEI: 150 mg/g creatinine, mandelic acid plus phenylglyoxylic acid [in urine]. Sampling time: end of shift. BEI: 20 µg/l, styrene [in urine]. Sampling time: end of shift. |
| N,N-dimethylaniline | ACGIH BEI (United States, 7/2023) [methemoglobin inducers] BEI: 5 % of hemoglobin, methemoglobin [in blood]. Sampling time: during or end of shift. |

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.

Section 8. Exposure controls/personal protection

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. 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 damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to ISO 374-1:2016.

May be used, gloves(breakthrough time) 4 - 8 hours: Viton® (> 0.7 mm)

Not recommended, gloves(breakthrough time) < 1 hour: nitrile rubber (> 0.75 mm), neoprene (> 0.35 mm), butyl rubber (> 0.4 mm), PVC (> 0.5 mm)

Recommended, gloves(breakthrough time) > 8 hours: Teflon (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm), 4H/Silver Shield® (> 0.07 mm)

Body protection : Use chemical-resistant protective suit / disposable overall.

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 | : Yellowish. |
| Odor | : Pungent. |
| Odor threshold | : Not applicable. |
| pH | : Not applicable. |
| Melting point | : Not applicable. |
| Boiling point | : Lowest known value: 145°C (293°F) (styrene). Weighted average: 149.86°C (301.7°F) |
| Flash point | : Closed cup: 31°C (87.8°F) |
| Evaporation rate | : 0.536 (styrene) compared with butyl acetate |
| Flammability (solid, gas) | : Not applicable. |
| Lower and upper explosive (flammable) limits | : 0.9 - 7% |
| Vapor pressure | : Highest known value: 0.9 kPa (6.4 mm Hg) (at 20°C) (styrene). Weighted average: 0.82 kPa (6.15 mm Hg) (at 20°C) |
| Vapor density | : Highest known value: 4.2 (Air = 1) (N,N-dimethylaniline). Weighted average: 3.66 (Air = 1) |
| Relative density | : 0.91 g/cm ³ 7.59 pounds/gallon |
| Solubility(ies) | : |

| Media | Result |
|------------|-------------|
| cold water | Not soluble |
| hot water | Not soluble |

| | |
|--|--|
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature | : Lowest known value: 371.11°C (700°F) (N,N-dimethylaniline). |
| Decomposition temperature | : Not available. |
| Viscosity | : Kinematic (40°C (104°F)): <20.5 mm ² /s (<20.5 cSt) |

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. |
| 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

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------------|---------|-----------------------|----------|
| styrene | LC50 Inhalation Vapor | Rat | 11.8 mg/l | 4 hours |
| | LD50 Dermal | Rat | 2000 mg/kg | - |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| N,N-dimethylaniline | LC50 Inhalation Vapor | Rat | 5.1 mg/l | 4 hours |
| | LCLo Inhalation Vapor | Rat | 250 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | 1770 mg/kg | - |
| | LD50 Oral | Rat | 1348 mg/kg | - |

Section 11. Toxicological information

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|----------------------------|--------------------------|------------------------------|-------|-------------------------|-------------|
| styrene | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 milligrams | - |
| N,N-dimethylaniline | Skin - Moderate irritant | Rabbit | - | 100 Percent | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 milligrams | - |
| 1,4-benzenediol, 2-methyl- | Eyes - Moderate irritant | Rabbit | - | 20 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 500 milligrams | - |
| 1,4-benzenediol, 2-methyl- | Eyes - Irritant | Mammal - species unspecified | - | - | - |

Sensitization

| Product/ingredient name | Route of exposure | Species | Result |
|----------------------------|-------------------|------------------------------|-------------|
| 1,4-benzenediol, 2-methyl- | skin | Mammal - species unspecified | Sensitizing |

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|--|
| styrene | - | 2A | Reasonably anticipated to be a human carcinogen. |
| N,N-dimethylaniline | - | 3 | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|----------------------------|------------|-------------------|------------------------------|
| styrene | Category 3 | - | Respiratory tract irritation |
| 1,4-benzenediol, 2-methyl- | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---------|------------|-------------------|----------------|
| styrene | Category 1 | - | hearing organs |

Aspiration hazard

| Name | Result |
|---------|--------------------------------|
| styrene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

Section 11. Toxicological information

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Harmful if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

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** : Causes damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : Suspected of damaging the unborn child.
- 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

| Route | ATE value |
|---------------------|------------|
| Oral | 1000 mg/kg |
| Dermal | 3000 mg/kg |
| Inhalation (vapors) | 10.44 mg/l |

Section 11. Toxicological information

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|----------------------------|--|---|----------------------|
| N,N-dimethylaniline | Acute EC50 2.3 to 3.1 mg/l Fresh water Acute LC50 65600 to 69800 µg/l Fresh water | Daphnia - Daphnia magna Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours 96 hours |
| 1,4-benzenediol, 2-methyl- | Acute EC50 0.19 mg/l Acute LC50 0.09 mg/l | Daphnia - Daphnia magna Fish - Fathead minnow | 48 hours 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| N,N-dimethylaniline | - | - | Not readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|----------------------------|--------------------|-------|-----------|
| styrene | 2.96 | 13.49 | low |
| N,N-dimethylaniline | 1.171 | 16 | low |
| 1,4-benzenediol, 2-methyl- | 0.91 | - | low |

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.

Section 14. Transport information

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | ADR/RID | IMDG | IATA |
|----------------------------|--|--|--|---|--|--|
| UN number | UN1993 | UN1993 | UN1993 | UN1993 | UN1993 | UN1993 |
| UN proper shipping name | Flammable liquid, n.o.s. (styrene) | Flammable liquid, n.o.s. (styrene) | Flammable liquid, n.o.s. (styrene) | Flammable liquid, n.o.s. (styrene) | Flammable liquid, n.o.s. (styrene) | Flammable liquid, n.o.s. (styrene) |
| Transport hazard class(es) | 3  | 3  | 3  | 3  | 3  | 3  |
| Packing group | III | III | III | III | III | III |
| Environmental hazards | No. | No. | No. | No. | No. | No. |

Additional information

- DOT Classification** : **Reportable quantity** 1000 lbs / 454 kg [131.8 gal / 498.9 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).
- Mexico Classification** : -
- ADR/RID** : Tunnel restriction code: (D/E)
Hazard identification number: 30
- IMDG** : Emergency schedules (EmS): F-E, S-E
Marine pollutant: No.
- IATA** : -
- 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 IMO instruments** : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **Clean Water Act (CWA) 311:** styrene

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

| Ingredient name | CAS number | % |
|---------------------|------------|------|
| styrene | 100-42-5 | 89.9 |
| N,N-dimethylaniline | 121-69-7 | 10 |

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Section 15. Regulatory information

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3
 ACUTE TOXICITY (oral) - Category 4
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN IRRITATION - Category 2
 EYE IRRITATION - Category 2A
 CARCINOGENICITY - Category 2
 TOXIC TO REPRODUCTION - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
 ASPIRATION HAZARD - Category 1

Composition/information on ingredients

| Name | % | Classification |
|---------------------|-----------|---|
| styrene | ≥75 - ≤90 | FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 ASPIRATION HAZARD - Category 1 |
| N,N-dimethylaniline | ≤10 | ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 CARCINOGENICITY - Category 2 |

SARA 313

| | Product name | CAS number | % |
|--|---------------------|------------|-----------|
| Form R - Reporting requirements | styrene | 100-42-5 | ≥75 - ≤90 |
| | N,N-dimethylaniline | 121-69-7 | ≤10 |
| Supplier notification | styrene | 100-42-5 | ≥75 - ≤90 |
| | N,N-dimethylaniline | 121-69-7 | ≤10 |

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.

State regulations

Massachusetts : The following components are listed: STYRENE; DIMETHYLANILINE
New York : The following components are listed: Styrene
New Jersey : The following components are listed: STYRENE MONOMER; DIMETHYLANILINE
Pennsylvania : The following components are listed: BENZENE, ETHENYL-; BENZENAMINE, N,N-DIMETHYL-

California Prop. 65

WARNING: This product can expose you to Styrene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

| Ingredient name | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|-----------------|--------|--------------|---------------------------|---------------------------------|
| styrene | Yes. | No. | Yes. | - |

International regulations

Section 15. Regulatory information

[Chemical Weapon Convention List Schedules I, II & III Chemicals](#)

Not listed.

[Montreal Protocol](#)

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](#)

| | |
|-----------------------------------|-------------------|
| Australia | : Not determined. |
| Canada | : Not determined. |
| China | : Not determined. |
| Europe | : Not determined. |
| Japan | : Not determined. |
| Malaysia | : Not determined. |
| New Zealand | : Not determined. |
| Philippines | : Not determined. |
| Republic of Korea | : Not determined. |
| Taiwan | : Not determined. |

Section 16. Other information

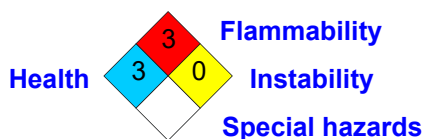
[Hazardous Material Information System \(U.S.A.\)](#)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 3 |
| Physical hazards | | 0 |
| | | |

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 and the associated label are not required on SDSs or products leaving a facility 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 trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

[National Fire Protection Association \(U.S.A.\)](#)



[Procedure used to derive the classification](#)

Section 16. Other information

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE LIQUIDS - Category 3 | On basis of test data |
| ACUTE TOXICITY (oral) - Category 4 | Calculation method |
| ACUTE TOXICITY (inhalation) - Category 4 | Calculation method |
| SKIN IRRITATION - Category 2 | Calculation method |
| EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| TOXIC TO REPRODUCTION - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |
| AQUATIC HAZARD (LONG-TERM) - Category 3 | Calculation method |

History

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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
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

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.