SAFETY DATA SHEET



Penguard FC Comp A

Section 1. Identification

GHS product identifier : Penguard FC Comp A

Product code : 2280
Product description : Paint.

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

Supplier's details : Jotun Paints Inc.

842 W. Sam Houston Parkway North

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 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Hazard pictograms









Signal word : Danger.

Hazard statements: H226 - Flammable liquid and vapor.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage. H335 - May cause respiratory irritation.

H373 - May cause damage to organs through prolonged or repeated exposure. (hearing

organs)

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Section 2. Hazards identification

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention: P280 - Wear protective gloves. Wear 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 or spray.

Response : P314 - Get medical advice or attention if you feel unwell.

P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P363 - Wash contaminated clothing before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor.

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 : 2280

| Ingredient name | % | CAS number |
|--|-----------|------------|
| epoxy resin (MW 700-1200) | ≥10 - ≤25 | 25036-25-3 |
| xylene | ≥10 - ≤22 | 1330-20-7 |
| Solvent naphtha (petroleum), light arom. | ≤10 | 64742-95-6 |
| butan-1-ol | ≤9.8 | 71-36-3 |
| ethylbenzene | ≤5 | 100-41-4 |

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

: Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.

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Section 4. First aid measures

Inhalation

: Get medical attention immediately. Call a poison center or physician. 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. 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

: Get medical attention immediately. Call a poison center or physician. 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. 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.

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. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contactInhalationCauses serious eye damage.May cause respiratory irritation.

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 watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

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 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

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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

carbon monoxide metal oxide/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. Do not breathe 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.

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.

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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.

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 |
|--|---|
| epoxy resin (MW 700-1200) xylene | None OSHA PEL (United States, 5/2018). [Xylenes] TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). [Xylenes (o-, m-, p-isomers)] STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. CAL OSHA PEL (United States, 5/2018). [xylene] STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. C: 300 ppm TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 7/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant. TWA: 20 ppm 8 hours. |
| Solvent naphtha (petroleum), light arom. butan-1-ol | None ACGIH TLV (United States, 7/2023). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2020). Absorbed through skin. |

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ethylbenzene

Section 8. Exposure controls/personal protection

CEIL: 150 mg/m³ CEIL: 50 ppm

OSHA PEL (United States, 5/2018).

TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

OSHA PEL 1989 (United States, 3/1989).

Absorbed through skin. CEIL: 150 mg/m³ CEIL: 50 ppm

CAL OSHA PEL (United States, 5/2018).

Absorbed through skin.

C: 150 mg/m³ C: 50 ppm

ACGIH TLV (United States, 7/2023).

Ototoxicant. Notes: K
TWA: 20 ppm 8 hours. Form:

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.

NIOSH REL (United States, 10/2020).

TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018).

TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.

CAL OSHA PEL (United States, 5/2018).

STEL: 130 mg/m³ 15 minutes. STEL: 30 ppm 15 minutes. TWA: 22 mg/m³ 8 hours. TWA: 5 ppm 8 hours.

Biological exposure indices

| Ingredient name | Exposure indices |
|-----------------|--|
| xylene | ACGIH BEI (United States, 7/2023) [xylenes (technical or commercial grades)] BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift. |
| ethylbenzene | ACGIH BEI (United States, 7/2023) BEI: 0.15 g/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: 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.

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

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Section 8. Exposure controls/personal protection

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 and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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.

Not recommended, gloves(breakthrough time) < 1 hour: butyl rubber (> 0.4 mm) May be used, gloves(breakthrough time) 4 - 8 hours: Viton® (> 0.7 mm), PVC (> 0.5 mm), neoprene (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm) Recommended, gloves(breakthrough time) > 8 hours: 4H/Silver Shield® (> 0.07 mm), Teflon (> 0.35 mm), nitrile rubber (> 0.75 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 antistatic 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.

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Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Brown., Black, Blue., Green., Grey, MCI Base 1, MCI Base 3, Off-white., Orange, Red,

Violet., White., Yellow.

Odor : Characteristic. **Odor threshold** : Not applicable.

Hq : Not applicable. **Melting point** : Not applicable.

Boiling point : Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 140.88°C

(285.6°F)

: Closed cup: 28°C (82.4°F) Flash point

Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.68compared with butyl

acetate

: Not applicable.

Flammability (solid, gas)

Lower and upper explosive

(flammable) limits

: Greatest known range: Lower: 1.4% Upper: 11.3% (butan-1-ol)

: Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted Vapor pressure

average: 0.79 kPa (5.93 mm Hg) (at 20°C)

Vapor density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.36 (Air = 1)

Relative density : 1.353 to 1.523 g/cm³ 11.29 to 12.71 pounds/gallon

Solubility(ies)

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

Partition coefficient: noctanol/water

: Not available.

Auto-ignition temperature

: Lowest known value: 280 to 470°C (536 to 878°F) (Solvent naphtha (petroleum), light

arom.).

Decomposition temperature

: Not available.

Viscosity

: Kinematic (40°C (104°F)): >20.5 mm²/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:

Hazardous decomposition

products

oxidizing materials

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

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Section 11. Toxicological information

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------------|------------|-------------|----------|
| xylene | LC50 Inhalation Vapor | Rat | 11 mg/l | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| | TDLo Dermal | Rabbit | 4300 mg/kg | - |
| butan-1-ol | LD50 Oral | Rat | 790 mg/kg | - |
| ethylbenzene | LC50 Inhalation Vapor | Rat - Male | 11 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---------------------------|--|------------------------------------|-------|--|-------------|
| epoxy resin (MW 700-1200) | Eyes - Mild irritant | Mammal - species unspecified | - | - | - |
| | Skin - Mild irritant | Mammal - species unspecified | - | - | - |
| xylene | Eyes - Mild irritant Skin - Mild irritant | Rabbit Rat | - | 87 milligrams 8 hours 60 microliters | - |

Sensitization

| 3 | Route of exposure | Species | Result |
|---------------------------|-------------------|------------------------------|-------------|
| epoxy resin (MW 700-1200) | skin | Mammal - species unspecified | Sensitizing |

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|------------------------------|
| xylene | Category 3 | - | Respiratory tract irritation |
| Solvent naphtha (petroleum), light arom. | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| butan-1-ol | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--------------|------------|-------------------|----------------|
| ethylbenzene | Category 2 | - | hearing organs |

Aspiration hazard

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Section 11. Toxicological information

| Name | Result |
|--|--|
| Solvent naphtha (petroleum), light arom. | ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 |

Information on the likely

: Not available.

routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.Inhalation : May cause respiratory irritation.

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 watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion: Adverse symptoms may include the following:

stomach pains

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

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

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.

No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

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Section 11. Toxicological information

| Route | ATE value |
|---------------------|----------------|
| Oral | 7879.54 mg/kg |
| Dermal | 10509.79 mg/kg |
| Inhalation (vapors) | 78.82 mg/l |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|-----------------------------------|----------------------------------|----------|
| xylene | Acute LC50 8500 μg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| | Acute LC50 13400 μg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| Solvent naphtha (petroleum), light arom. | Acute EC50 <10 mg/l | Daphnia | 48 hours |
| | Acute IC50 <10 mg/l | Algae | 72 hours |
| | Acute LC50 <10 mg/l | Fish | 96 hours |
| ethylbenzene | Acute EC50 7700 µg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 2.93 mg/l | Daphnia | 48 hours |
| | Acute LC50 4.2 mg/l | Fish | 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------------|
| xylene Solvent naphtha (petroleum), light arom. | - | | Readily Not readily |
| ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|------------------------------|--------------------|-------------|-----------|
| xylene | 3.12 | 8.1 to 25.9 | low |
| Solvent naphtha (petroleum), | - | 10 to 2500 | high |
| light arom. | | | |
| butan-1-ol | 1 | - | low |
| ethylbenzene | 3.6 | - | low |

: No known significant effects or critical hazards.

Mobility in soil

Soil/water partition coefficient (Koc)

Other adverse effects

: Not available.

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

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Section 13. Disposal considerations

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

| Ingredient | CAS# | | Reference number |
|---------------|-----------|--------|------------------|
| Xylene | 1330-20-7 | Listed | U239 |
| 1-Butanol (I) | 71-36-3 | Listed | U031 |

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | ADR/RID | IMDG | IATA |
|-------------------------------|-----------------------|-----------------------|--------------------------|---------|--------|--------|
| UN number | UN1263 | UN1263 | UN1263 | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | Paint | Paint | Paint | Paint | Paint | Paint |
| Transport hazard class(es) | 3 | 3 | 3 | 3 | 3 | 3 |
| Packing group | Ш | III | III | III | III | III |
| Environmental hazards | No. | No. | No. | No. | No. | No. |

Additional information

DOT Classification

- : Reportable quantity 954.48 lbs / 433.33 kg [79.607 gal / 301.35 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

ADR/RID: Viscous substance. Not goods of class 3, ref. 2.2.3.1.5 (only applicable to receptacles < 450 litre capacity).

IMDG

: Emergency schedules (EmS): F-E, S-E

Marine pollutant: No.

IMDG: Viscous substance. Transport in accordance with 2.3.2.5 of the IMDG Code (only applicable to receptacles < 450 litre capacity).

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 : Not available. to IMO instruments

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Section 15. Regulatory information

U.S. Federal regulations : Clean Water Act (CWA) 307: ethylbenzene; c.i. pigment green 7

Clean Water Act (CWA) 311: xylene; ethylbenzene

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

| Ingredient name | CAS number | % |
|-----------------|------------|--------|
| xylene | 1330-20-7 | 10.477 |
| ethylbenzene | 100-41-4 | 3.4923 |

Clean Air Act Section 602

Class I Substances

: Not listed

Clean Air Act Section 602

Class II Substances

: Not listed

554114161

DEA List I Chemicals

: Not listed

(Precursor Chemicals)

DEA List II Chemicals

: Not listed

(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3

SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Composition/information on ingredients

| Name | % | Classification |
|------------------------------|-----------|--|
| epoxy resin (MW 700-1200) | ≥10 - ≤25 | SKIN IRRITATION - Category 2 |
| | | EYE IRRITATION - Category 2A |
| | | SKIN SENSITIZATION - Category 1 |
| xylene | ≥10 - ≤22 | FLAMMABLE LIQUIDS - Category 3 |
| | | ACUTE TOXICITY (dermal) - Category 4 |
| | | ACUTE TOXICITY (inhalation) - Category 4 |
| | | SKIN IRRITATION - Category 2 |
| | | EYE IRRITATION - Category 2A |
| | | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) |
| | | (Respiratory tract irritation) - Category 3 |
| | | ASPIRATION HAZARD - Category 1 |
| Solvent naphtha (petroleum), | ≤10 | FLAMMABLE LIQUIDS - Category 3 |
| light arom. | | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) |
| | | (Respiratory tract irritation) - Category 3 |
| | | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) |
| | | (Narcotic effects) - Category 3 |
| | | ASPIRATION HAZARD - Category 1 |
| butan-1-ol | ≤9.8 | FLAMMABLE LIQUIDS - Category 3 |
| | | ACUTE TOXICITY (oral) - Category 4 |
| | | SKIN IRRITATION - Category 2 |
| | | SERIOUS EYE DAMAGE - Category 1 |
| | | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) |
| | | (Respiratory tract irritation) - Category 3 |
| | | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) |
| | | (Narcotic effects) - Category 3 |
| ethylbenzene | ≤5 | FLAMMABLE LIQUIDS - Category 2 |
| | | ACUTE TOXICITY (inhalation) - Category 4 |
| 1 | [| |

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| SPECIFIC TARGET ORGAN TOX EXPOSURE) - Category 2 ASPIRATION HAZARD - Categor | • |
|--|---|
|--|---|

SARA 313

| | Product name | CAS number | % |
|---------------------------------|--------------|------------|-----------|
| Form R - Reporting requirements | xylene | 1330-20-7 | ≥10 - ≤22 |
| | butan-1-ol | 71-36-3 | ≤9.8 |
| | ethylbenzene | 100-41-4 | ≤5 |
| Supplier notification | xylene | 1330-20-7 | ≥10 - ≤22 |
| | butan-1-ol | 71-36-3 | ≤9.8 |
| | ethylbenzene | 100-41-4 | ≤5 |

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: XYLENE; N-BUTYL ALCOHOL; ETHYL BENZENE

New York : The following components are listed: Xylene mixed; Butyl alcohol; Ethylbenzene
New Jersey : The following components are listed: XYLENES; n-BUTYL ALCOHOL; ETHYL

BENZENE; ŠILICA, QUARTZ

Pennsylvania : The following components are listed: BENZENE, DIMETHYL-; 1-BUTANOL; BENZENE,

ETHYL-

California Prop. 65

WARNING: This product can expose you to chemicals including Ethylbenzene, Silica, crystalline, Titanium dioxide and Carbon black, which are 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 |
|---------------------------|--------|--------------|---------------------------|---------------------------------|
| ethylbenzene | Yes. | No. | Yes. | - |
| quartz, alveolar (<10 μm) | Yes. | No. | - | - |
| titanium dioxide | Yes. | No. | - | - |
| carbon black | Yes. | No. | - | - |

International regulations

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.

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Section 15. Regulatory information

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.)



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

| Classification | Justification |
|---|--|
| SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | On basis of test data Calculation method |

History

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revision

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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

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Section 16. Other information

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.

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