# SAFETY DATA SHEET



# Penguard Express UHS Comp A

### Section 1. Identification

**Product identifier** : Penguard Express UHS Comp A

Product code : 48082
Product type : Liquid.
Product description : Paint.

Other means of : Not available.

identification

#### Recommended use of the chemical and restrictions on use

Use in coatings - Industrial use

Supplier's details : Jotun Paints Co LLC,

P.O.Box 672-C.P.O, Postal Code - 111 Sultanate of Oman Tel: 00968-626100 Fax:00968-626105 SDSJotun@jotun.com

**Emergency telephone** 

number

: Jotun AS, Norway +47 33 45 70 00

### Section 2. Hazard identification

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1

SKIN SENSITISATION - Category 1

LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

**GHS label elements** 

Hazard pictograms :







Signal word : Danger.

**Hazard statements** : H226 - Flammable liquid and vapour.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage.

H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements** 

Date of issue/Date of revision : 16.05.2024 Date of previous issue : 16.05.2024 Version : 1.01 1/12

## Section 2. Hazard identification

General

: Not applicable.

**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.

P261 - Avoid breathing vapour.

Response

P362 + P364 - Take off contaminated clothing and wash it 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** 

: Not applicable.

**Disposal** 

: P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Other hazards which do not : None known.

result in classification

## Section 3. Composition/information on ingredients

Substance/mixture Other means of identification

: Mixture

: Not available.

| Ingredient name   | %         | CAS number  |
|---|-----------|-------------|
| epoxy resin (MW ≤ 700)  | ≥10 - <25 | 1675-54-3   |
| glycidyl ether of 3-alkyl phenol  | ≤5        | 68413-24-1  |
| xylene  | ≤5        | 1330-20-7   |
| hydrocarbons, c9-unsatd., polymd.   | ≤3        | 71302-83-5  |
| Cashew, nutshell liq.   | ≤3        | 8007-24-7   |
| ethylbenzene  | ≤3        | 100-41-4    |
| 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine | ≤3        | 220926-97-6 |
| phenol, methylstyrenated  | ≤3        | 68512-30-1  |
| 2-methylpropan-1-ol   | ≤3        | 78-83-1     |

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.

Date of issue/Date of revision : 16.05.2024 Date of previous issue : 16.05.2024 Version: 1.01 2/12

#### Section 4. First aid measures

: 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 contact** : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

: No known significant effects or critical hazards. Ingestion

#### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:

> pain watering redness

Inhalation : No specific data.

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.

: No action shall be taken involving any personal risk or without suitable training. If it **Protection of first-aiders** 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)

Date of issue/Date of revision : 16.05.2024 : 16.05.2024 Version : 1.01 3/12 Date of previous issue

### Section 5. Firefighting measures

#### **Extinguishing media**

Suitable extinguishing

media

: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

Unsuitable extinguishing media

: Do not use water jet.

# Specific hazards arising from the chemical

: Flammable liquid and vapour. 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

halogenated compounds 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

#### For emergency responders:

If specialised 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 spilt 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 material 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 the 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 spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Date of issue/Date of revision : 16.05.2024 Date of previous issue : 16.05.2024 Version : 1.01 4/12

### 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 vapour 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.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

See Technical Data Sheet / packaging for further information.

### Section 8. Exposure controls/personal protection

#### **Control parameters**

Occupational exposure limits

None.

#### **Biological exposure indices**

No exposure indices known.

# 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, vapour 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.

Date of issue/Date of revision : 16.05.2024 Date of previous issue : 16.05.2024 Version : 1.01 5/12

# Section 8. Exposure controls/personal protection

#### **Eye/face protection**

: Safety eyewear complying to ISO 16321-1:2022 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**

: 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.

Recommended, gloves(breakthrough time) > 8 hours: Teflon (> 0.35 mm), nitrile rubber (> 0.75 mm), butyl rubber (> 0.4 mm), Viton® (> 0.7 mm), 4H/Silver Shield® (> 0.07 mm)

May be used, gloves(breakthrough time) 4 - 8 hours: neoprene (> 0.35 mm), PVC (> 0.5 mm), polyvinyl alcohol (PVA) (> 0.3 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

#### **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**

: If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

# Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

#### **Appearance**

Physical state
Colour
: Grey, Red
Odour
: Hydrocarbon.
Odour threshold
: Not applicable.

Melting point/freezing point
: Not applicable.

Date of issue/Date of revision : 16.05.2024 Date of previous issue : 16.05.2024 Version : 1.01 6/12

# Section 9. Physical and chemical properties and safety characteristics

: Lowest known value: 108°C (226.4°F) (2-methylpropan-1-ol). Weighted average: **Boiling point** 

259.94°C (499.9°F)

Closed cup: 32°C (89.6°F) Flash point

Highest known value: 0.84 (ethylbenzene) Weighted average: 0.76compared with **Evaporation rate** 

butyl acetate

**Flammability** Not applicable.

Lower and upper explosion limit/flammability limit

Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol)

Vapour pressure Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1-ol).

Weighted average: 0.17 kPa (1.28 mm Hg) (at 20°C)

Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted average: Vapour density

10.12 (Air = 1)

1.605 to 1.607 g/cm<sup>3</sup> **Density** 

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: >375°C (>707°F) (hydrocarbons, c9-unsatd., polymd.).

**Decomposition temperature** 

Not available.

**Viscosity** 

Kinematic (40°C (104°F)): >20.5 mm<sup>2</sup>/s (>20.5 cSt)

**Particle characteristics** 

Median particle size : Not applicable.

### Section 10. Stability and reactivity

Reactivity

: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

Stable under recommended storage and handling conditions (see Section 7).

Possibility of hazardous

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

reactions

Conditions to avoid

When exposed to high temperatures may produce hazardous decomposition

products.

Incompatible materials

: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

**Hazardous decomposition** products

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

### Section 11. Toxicological information

#### Information on toxicological effects

#### **Acute toxicity**

| Product/ingredient name           | Result                 | Species    | Dose        | Exposure |
|-----------------------------------|------------------------|------------|-------------|----------|
| epoxy resin (MW ≤ 700)            | LD50 Dermal            | Rabbit     | 20 g/kg     | -        |
| , , , ,                           | LD50 Oral              | Mouse      | 15600 mg/kg | -        |
| xylene                            | LC50 Inhalation Vapour | Rat        | 11 mg/l     | 4 hours  |
| •                                 | LD50 Oral              | Rat        | 4300 mg/kg  | -        |
|                                   | TDLo Dermal            | Rabbit     | 4300 mg/kg  | -        |
| hydrocarbons, c9-unsatd., polymd. | LD50 Dermal            | Rat        | 2000 mg/kg  | -        |
| ,                                 | LD50 Oral              | Rat        | 2000 mg/kg  | _        |
| ethylbenzene                      | LC50 Inhalation Vapour | Rat - Male | 11 mg/l     | 4 hours  |
| •                                 | LD50 Dermal            | Rabbit     | >5000 mg/kg | _        |
|                                   | LD50 Oral              | Rat        | 3500 mg/kg  | -        |

Date of issue/Date of revision : 16.05.2024 : 16.05.2024 Version : 1.01 7/12 Date of previous issue

Penguard Express UHS Comp A

# Section 11. Toxicological information

| 2-methylpropan-1-ol | LC50 Inhalation Vapour | Rat    | 19200 mg/m³ | 4 hours |
|---------------------|------------------------|--------|-------------|---------|
|                     | LD50 Dermal            | Rabbit | 3400 mg/kg  | -       |
|                     | LD50 Oral              | Rat    | 2460 mg/kg  | -       |

#### **Irritation/Corrosion**

| Product/ingredient name  | Result                 | Species                            | Score | Exposure                 | Observation |
|--------------------------|------------------------|------------------------------------|-------|--------------------------|-------------|
| epoxy resin (MW ≤ 700)   | Eyes - Severe irritant | Rabbit                             | -     | 24 hours 2<br>milligrams | -           |
|                          | Skin - Mild irritant   | Rabbit                             | -     | 500<br>milligrams        | -           |
| xylene                   | Eyes - Mild irritant   | Rabbit                             | -     | 87 milligrams            | -           |
|                          | Skin - Mild irritant   | Rat                                | -     | 8 hours 60 microliters   | -           |
| Cashew, nutshell liq.    | Eyes - Irritant        | Mammal -<br>species<br>unspecified | -     | -                        | -           |
|                          | Skin - Mild irritant   | Mammal -<br>species<br>unspecified | -     | -                        | -           |
| phenol, methylstyrenated | Skin - Mild irritant   | Mammal -<br>species<br>unspecified | -     | -                        | -           |
| 2-methylpropan-1-ol      | Eyes - Irritant        | Mammal -<br>species<br>unspecified | -     | -                        | -           |
|                          | Skin - Mild irritant   | Mammal -<br>species<br>unspecified | -     | -                        | -           |

#### **Sensitisation**

| Product/ingredient name             | Route of exposure | Species                      | Result      |
|-------------------------------------|-------------------|------------------------------|-------------|
| epoxy resin (MW ≤ 700)              | skin              | Mammal - species unspecified | Sensitising |
| glycidyl ether of 3-alkyl<br>phenol | skin              | Mammal - species unspecified | Sensitising |
| hydrocarbons, c9-unsatd., polymd.   | skin              | Mouse                        | Sensitising |
| Cashew, nutshell liq.               | skin              | Mammal - species unspecified | Sensitising |
| phenol, methylstyrenated            | skin              | Mammal - species unspecified | Sensitising |

#### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

Specific target organ toxicity (single exposure)

Date of issue/Date of revision : 16.05.2024 Date of previous issue : 16.05.2024 Version : 1.01 8/12

# Section 11. Toxicological information

| Product/ingredient name | • •        | Route of exposure | Target organs                |
|-------------------------|------------|-------------------|------------------------------|
| xylene                  | Category 3 | -                 | Respiratory tract irritation |
| 2-methylpropan-1-ol     | Category 3 | -                 | Respiratory tract irritation |
|                         | Category 3 |                   | Narcotic effects             |

#### Specific target organ toxicity (repeated exposure)

| Product/ingredient name   | 3.3        | Route of exposure | Target organs  |
|---|------------|-------------------|----------------|
| ethylbenzene  | Category 2 | -                 | hearing organs |
| 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine | Category 2 | -                 | -              |

#### **Aspiration hazard**

| Product/ingredient name | Result                         |
|-------------------------|--------------------------------|
| xylene                  | ASPIRATION HAZARD - Category 1 |
| ethylbenzene            | ASPIRATION HAZARD - Category 1 |

Information on likely routes

of exposure

: Not available.

#### Potential acute health effects

**Eye contact** : Causes serious eye damage.

**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 watering redness

Inhalation : No specific data.

**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 as well as 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 : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Date of issue/Date of revision : 16.05.2024 Date of previous issue : 16.05.2024 Version : 1.01 9/12

# Section 11. Toxicological information

Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

#### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

| Product/ingredient name   | Oral (mg/<br>kg) | Dermal<br>(mg/kg) | Inhalation<br>(gases)<br>(ppm) | Inhalation<br>(vapours)<br>(mg/l) | Inhalation<br>(dusts<br>and mists)<br>(mg/l) |
|---|------------------|-------------------|--------------------------------|-----------------------------------|--|
| Penguard Express UHS Comp A xylene Cashew, nutshell liq. ethylbenzene 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine | 25000            | 19882.5           | N/A                            | 233.5                             | 131.6  |
|   | N/A              | 1100              | N/A                            | 11                                | N/A  |
|   | 500              | 1100              | N/A                            | N/A                               | N/A  |
|   | N/A              | N/A               | N/A                            | 11                                | N/A  |
|   | N/A              | N/A               | N/A                            | N/A                               | 1.5  |

# Section 12. Ecological information

#### **Toxicity**

| Product/ingredient name | Result                             | Species                          | Exposure |
|-------------------------|------------------------------------|----------------------------------|----------|
| epoxy resin (MW ≤ 700)  | Acute EC50 1.4 mg/l                | Daphnia                          | 48 hours |
|                         | Acute LC50 3.1 mg/l                | Fish - pimephales promelas       | 96 hours |
|                         | Chronic NOEC 0.3 mg/l              | Fish                             | 21 days  |
| 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 |
| 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 |
| 2-methylpropan-1-ol     | Chronic NOEC 4000 µg/l Fresh water | Daphnia - Daphnia magna          | 21 days  |

### Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| epoxy resin (MW ≤ 700)  | -                 | -          | Not readily      |
| xylene                  | -                 | -          | Readily          |
| ethylbenzene            | -                 | -          | Readily          |

#### **Bioaccumulative potential**

| Product/ingredient name   | LogPow       | BCF         | Potential |
|---------------------------|--------------|-------------|-----------|
| epoxy resin (MW ≤ 700)    | 2.64 to 3.78 | 31          | low       |
| xylene                    | 3.12         | 8.1 to 25.9 | low       |
| hydrocarbons, c9-unsatd., | 3.627        | -           | low       |
| polymd.                   |              |             |           |
| Cashew, nutshell liq.     | >4.78        | -           | high      |
| ethylbenzene              | 3.6          | -           | low       |
| phenol, methylstyrenated  | 3.627        | -           | low       |
| 2-methylpropan-1-ol       | 1            | -           | low       |

#### **Mobility in soil**

Date of issue/Date of revision : 16.05.2024 Date of previous issue : 16.05.2024 Version : 1.01 10/12

Penguard Express UHS Comp A

# Section 12. Ecological information

Soil/water partition coefficient (Koc)

: 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 minimised 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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and

# **Section 14. Transport information**

|                            | UN     | IMDG   | IATA   |
|----------------------------|--------|--------|--------|
| UN number                  | UN1263 | UN1263 | UN1263 |
| UN proper shipping name    | Paint  | Paint  | Paint  |
| Transport hazard class(es) | 3      | 3      | 3      |
| Packing group              | III    | III    | III    |
| Environmental hazards      | No.    | No.    | No.    |

**Additional information** 

**IMDG** 

: Emergency schedules F-E, S-E

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

ADR/RID

: Hazard identification number 30

Tunnel code (D/E)

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

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

Date of issue/Date of revision : 16.05.2024 : 16.05.2024 Version: 1.01 11/12 Date of previous issue

### Section 15. Regulatory information

#### 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.

#### Section 16. Other information

**History** 

Date of printing : 16.05.2024 Date of issue/Date of : 16.05.2024

revision

Date of previous issue : 16.05.2024

Version : 1.01

**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)

N/A = Not available SGG = Segregation Group UN = United Nations

#### Procedure used to derive the classification

| Classification                                  | Justification         |
|---|-----------------------|
| FLAMMABLE LIQUIDS - Category 3                  | On basis of test data |
| SKIN CORROSION/IRRITATION - Category 2          | Calculation method    |
| SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1  | Calculation method    |
| SKIN SENSITISATION - Category 1                 | Calculation method    |
| LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 | Calculation method    |

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.

Date of issue/Date of revision : 16.05.2024 Date of previous issue : 16.05.2024 Version : 1.01 12/12