

Jotun Super Durable 2001

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

1.1 Product identifier

Product name : Jotun Super Durable 2001
Product code : 45902
Product type : Powder coating.
Other means of identification : Not available.

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

Use in coatings - Industrial use

1.3 Details of the supplier of the safety data sheet

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Phone : + 420 477 828 969
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sdsjotun@jotun.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : Contact NHS Direct; phone 0845 4647 or 111. Open 24/7.

Supplier

Telephone number : +47 33 45 70 00 Jotun Norway (head office)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Acute Tox. 4, H302
Eye Dam. 1, H318
Skin Sens. 1, H317
Muta. 1B, H340
STOT RE 2, H373
Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

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

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

2.2 Label elements

Hazard pictograms :



Signal word : Danger.

Jotun Super Durable 2001

SECTION 2: Hazards identification

- Hazard statements** : H302 - Harmful if swallowed.
 H317 - May cause an allergic skin reaction.
 H318 - Causes serious eye damage.
 H340 - May cause genetic defects.
 H373 - May cause damage to organs through prolonged or repeated exposure.
 H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- General** : Not applicable.
- Prevention** : P201 - Obtain special instructions before use.
 P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
 P273 - Avoid release to the environment.
 P260 - Do not breathe dust.
 P270 - Do not eat, drink or smoke when using this product.
- Response** : P308 + P313 - IF exposed or concerned: Get medical advice or attention.
 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.
- Supplemental label elements** : EUH212 - Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
- Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Restricted to professional users.
- Special packaging requirements**
- Containers to be fitted with child-resistant fastenings** : Not applicable.
- Tactile warning of danger** : Not applicable.

2.3 Other hazards

- Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
- Other hazards which do not result in classification** : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | % | Classification | Type |
|---|---|-----------|--|----------------|
| titanium dioxide | REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7 Index: 022-006-00-2 | ≥10 - ≤25 | Carc. 2, H351 (inhalation) | [1] [2] [*] |
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6-(1h,3h,5h)-trione | REACH #: 01-2119449817-25 EC: 219-514-3 | <10 | Acute Tox. 3, H301 Acute Tox. 3, H331 Eye Dam. 1, H318 | [1] [2] |

SECTION 3: Composition/information on ingredients

| | | | | |
|---|--|----|--|-----|
| barium sulfate | CAS: 2451-62-9 Index: 615-021-00-6 EC: 231-784-4 CAS: 7727-43-7 | ≤3 | Skin Sens. 1, H317 Muta. 1B, H340 STOT RE 2, H373 Aquatic Chronic 3, H412 Not classified. | [2] |
| Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-, homopolymer, caprolactam-blocked | CAS: 127184-53-6 | ≤3 | STOT RE 1, H372 (inhalation) | [1] |
| N,N,N,N-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethylpiperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine | REACH #: 01-0000015180-83 EC: 401-990-0 CAS: 106990-43-6 | <1 | Skin Sens. 1, H317 STOT RE 2, H373 (lymphatic system) Aquatic Chronic 2, H411 | [1] |
| 2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]- | REACH #: 01-2119977073-34 EC: 247-952-5 CAS: 26741-53-7 | ≤1 | Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above. | [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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with aerodynamic diameter ≤ 10 µm not bound within a matrix.

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

SECTION 4: First aid measures**4.1 Description of 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.
- 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. 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** : 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.

SECTION 4: First aid measures

- 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.
- 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.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Coating powders can cause localised skin irritation in folds of the skin or under tight clothing.

Toxicological results of tests made on mixtures containing TGIC showed
 Acute toxicity: LD50 (oral), 16g/kg body weight, LC50 (inhalation) > 11g/m³
 Sensitisation: Can provoke contact allergic reactions in humans
 Mutagenicity: Ames test: negative
 Chromosomal aberration test in mouse spermatogonial assay: positive
 Dominant lethal assay: negative

Caprolactam is classified as hazardous to human health and the toxicity effects are described by the following hazard statements: Harmful if swallowed or if inhaled (H302 + H332), Causes skin irritation (H315), Causes serious eye irritation (H319), May cause respiratory irritation (H335).

Contains 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione, N,N',N'',N'''-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethylpiperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine. May produce an allergic reaction.

Inhalation of thermal decomposition products may lead to adverse effects including pulmonary edema.

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

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO₂ blanket, water spray or mist.

Unsuitable extinguishing media : Do not use water jet.
Do not use inert gas under high pressure (e.g. CO₂).

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : 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 combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides
Fine dust clouds may form explosive mixtures with air.

5.3 Advice for firefighters

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.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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. 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".

6.2 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.

6.3 Methods and material for containment and cleaning up

Small spill : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 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. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- 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.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

See Technical Data Sheet / packaging for further information.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Dust Limit : 10 mg/m³ (TWA of total inhalable dust) and 4 mg/m³ (TWA of respirable)

| Product/ingredient name | Exposure limit values |
|---|--|
| titanium dioxide | EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 4 mg/m ³ 8 hours. Form: respirable TWA: 10 mg/m ³ 8 hours. Form: total inhalable |
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6 (1h,3h,5h)-trione | EH40/2005 WELs (United Kingdom (UK), 1/2020). [triglycidyl isocyanurate] TWA: 0.1 mg/m ³ 8 hours. |
| barium sulfate | EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 4 mg/m ³ 8 hours. Form: respirable dust TWA: 10 mg/m ³ 8 hours. Form: inhalable dust |

Biological exposure indices

No exposure indices known.

- Recommended monitoring procedures** : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---|----------------|-----------------------|-------------------------|----------------------|----------|
| titanium dioxide | DNEL | Long term Inhalation | 28 µg/m ³ | General population | Local |
| | DNEL | Long term Inhalation | 170 µg/m ³ | Workers | Local |
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1h,3h,5h)-trione | DMEL | Short term Inhalation | 0.002 mg/m ³ | General population | Systemic |
| | DMEL | Long term Inhalation | 0.005 mg/m ³ | General population | Systemic |
| | DNEL | Short term Inhalation | 0.01 mg/m ³ | General population | Local |
| | DNEL | Short term Dermal | 0.016 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Dermal | 0.04 mg/cm ² | General population | Local |
| | DNEL | Long term Oral | 0.043 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.043 mg/kg bw/day | General population | Systemic |
| | DMEL | Short term Inhalation | 0.052 mg/m ³ | Workers | Systemic |
| | DMEL | Long term Inhalation | 0.052 mg/m ³ | Workers | Systemic |
| | DMEL | Short term Oral | 0.096 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Inhalation | 0.1 mg/m ³ | Workers | Local |
| | DNEL | Short term Dermal | 0.16 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Dermal | 0.43 mg/cm ² | Workers | Local |
| | DNEL | Long term Dermal | 0.43 mg/kg bw/day | Workers | Systemic |
| | barium sulfate | DNEL | Long term Inhalation | 10 mg/m ³ | Workers |
| DNEL | | Long term Inhalation | 10 mg/m ³ | General population | Systemic |
| DNEL | | Long term Inhalation | 10 mg/m ³ | Workers | Systemic |
| DNEL | | Long term Oral | 13000 mg/kg bw/day | General population | Systemic |
| Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-, homopolymer, caprolactam-blocked | DNEL | Long term Inhalation | 0.013 mg/m ³ | General population | Local |
| | DNEL | Short term Inhalation | 0.065 mg/m ³ | General population | Local |
| | DNEL | Long term Inhalation | 0.075 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 0.375 mg/m ³ | Workers | Local |
| N,N,N,N-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethylpiperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine | DNEL | Long term Oral | 0.025 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.16 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 0.176 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 0.25 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 0.34 mg/m ³ | General population | Systemic |
| 2,4,8,10-tetraoxa-3,9-diphoshaspiro | DNEL | Long term Oral | 0.39 mg/ | General | Systemic |

SECTION 8: Exposure controls/personal protection

| | | | | | |
|--|------|----------------------|------------------------|--------------------|----------|
| [5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]- | | | kg bw/day | population | |
| | DNEL | Long term Dermal | 0.39 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 0.68 mg/m ³ | General population | Systemic |
| | DNEL | Long term Dermal | 0.78 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 2.75 mg/m ³ | Workers | Systemic |

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying 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.

Gloves

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

Recommended, gloves(breakthrough time) > 8 hours: PVC (> 0.5 mm), nitrile rubber (> 0.75 mm), neoprene (> 0.35 mm)

May be used, gloves(breakthrough time) 4 - 8 hours: 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 : 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.

SECTION 8: Exposure controls/personal protection

- 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. If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist. (FFP2 / N95).
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Solid. Powder.
- Colour** : Various
- Odour** : Odourless.
- Odour threshold** : Not applicable.
- Melting point (dust)** : 85 - 115 °C
- Initial boiling point and boiling range** : Not applicable.
- Flammability** : Not applicable.
- Lower explosion limit (dust)** : 30 g/m³ (EN 14034-3)
- Minimum ignition energy (mJ)** : 10 - 30 (EN 13821)
- Flash point** : Closed cup: Not applicable.
- Auto-ignition temperature** : > 400°C
- Decomposition temperature** : 230°C
- pH** : Not applicable.
- Viscosity** : Not applicable.
- Solubility(ies)** :

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

Partition coefficient: n-octanol/ water : Not applicable.

Vapour pressure : Not applicable.

Evaporation rate : Not applicable.

Density : 1.2 to 1.9 g/cm³

Vapour density : Not applicable.

Particle characteristics

Median particle size : Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : Fine dust clouds may form explosive mixtures with air.
- 10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame).
Take precautionary measures against electrostatic discharges.
To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
Prevent dust accumulation.
- 10.5 Incompatible materials** : Not applicable.
- 10.6 Hazardous decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Carbonyl fluoride and hydrogen fluoride may be formed above 200°C.

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Coating powders can cause localised skin irritation in folds of the skin or under tight clothing.

Toxicological results of tests made on mixtures containing TGIC showed
Acute toxicity: LD50 (oral), 16g/kg body weight, LC50 (inhalation) > 11g/m³
Sensitisation: Can provoke contact allergic reactions in humans
Mutagenicity: Ames test: negative
Chromosomal aberration test in mouse spermatogonial assay: positive
Dominant lethal assay: negative

Caprolactam is classified as hazardous to human health and the toxicity effects are described by the following hazard statements: Harmful if swallowed or if inhaled (H302 + H332), Causes skin irritation (H315), Causes serious eye irritation (H319), May cause respiratory irritation (H335).

Contains 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione, N,N',N'',N'''-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethylpiperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine. May produce an allergic reaction.

Inhalation of thermal decomposition products may lead to adverse effects including pulmonary edema.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|-----------|---------|-----------|----------|
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione | LD50 Oral | Rat | 138 mg/kg | - |

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Jotun Super Durable 2001 | 1428.5 | N/A | N/A | 42.9 | N/A |
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1h,3h,5h)-trione | 100 | N/A | N/A | 3 | N/A |

Irritation/Corrosion

Jotun Super Durable 2001

SECTION 11: Toxicological information

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|------------------------|------------------------------|-------|----------------|-------------|
| titanium dioxide | Skin - Mild irritant | Human | - | 72 hours | - |
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione | Eyes - Irritant | Mammal - species unspecified | - | - | - |
| | Eyes - Severe irritant | Rabbit | - | 100 milligrams | - |
| 2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]- | Skin - Severe irritant | Rabbit | - | 0.5 Grams | - |

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|---|-------------------|------------------------------|-------------|
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione | skin | Mammal - species unspecified | Sensitising |
| N,N,N,N-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethylpiperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine | skin | Mammal - species unspecified | Sensitising |

Mutagenicity

May cause genetic defects.

Carcinogenicity

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

No known significant effects or critical hazards.

Reproductive toxicity

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|---|------------|-------------------|------------------|
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione | Category 2 | - | - |
| Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-, homopolymer, caprolactam-blocked | Category 1 | inhalation | - |
| N,N,N,N-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethylpiperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine | Category 2 | - | lymphatic system |

Aspiration hazard

Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : Harmful if swallowed.

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SECTION 11: Toxicological information**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 |
| 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. |
| Other information | : None identified. |

SECTION 12: Ecological information**12.1 Toxicity**

There are no data available on the mixture itself.

Coating powder residues should not be allowed to enter drains or watercourses or be deposited where they could affect ground or surface waters.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

| Product/ingredient name | Result | Species | Exposure |
|--|---|---|---------------------|
| titanium dioxide | Acute LC50 3 mg/l Fresh water | Crustaceans - Water flea - Ceriodaphnia dubia - Neonate | 48 hours |
| | Acute LC50 6.5 mg/l Fresh water | Daphnia - Water flea - Daphnia pulex - Neonate | 48 hours |
| | Acute LC50 >1000000 µg/l Marine water | Fish - Mummichog - Fundulus heteroclitus | 96 hours |
| 2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]- | Acute EC10 15.4 mg/l | Algae | 72 hours |
| | Acute EC50 97 mg/l | Algae | 72 hours |
| | Acute LC50 70.7 mg/l Chronic NOEC 0.1 mg/l | Fish Daphnia | 96 hours 21 days |

Conclusion/Summary : This material is harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|-----|-----------|
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione | -0.8 | - | low |
| N,N,N,N-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethylpiperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine | -0.94 | - | low |

12.4 Mobility in soil

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SECTION 12: Ecological information

- Soil/water partition coefficient (K_{oc})** : Not available.
- Mobility** : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : 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.

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

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

| Type of packaging | Waste catalogue |
|-------------------|--|
| CEPE Guidelines | 15 01 10* packaging containing residues of or contaminated by hazardous substances |

- Special precautions** : 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|--|----------------|----------------|----------------|----------------|
| 14.1 UN number | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | - | - | - | - |
| 14.3 Transport hazard class(es) | - | - | - | - |
| 14.4 Packing group | - | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. | No. |

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SECTION 14: Transport information

14.6 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.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture UK (GB)/REACH

Annex XIV - List of substances subject to authorisation**Annex XIV**

None of the components are listed.

Substances of very high concern

| Intrinsic property | Ingredient name | Status | Reference number | Date of revision |
|--------------------|---|-----------|------------------|------------------|
| Mutagen | 1,3,5-tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione | Candidate | ED/87/2012 | 18.06.2012 |

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

| Product/ingredient name | List name | Name on list | Classification | Notes |
|--|--|--|----------------|-------|
| 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione | UK Occupational Exposure Limits EH40 - WEL | triglycidyl isocyanurate; 1,3,5-triglycidyl isocyanurate; TGIC | Carc. | - |

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

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

Not listed.

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SECTION 15: Regulatory information

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.

15.2 Chemical safety assessment

: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = GB CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

| Classification | Justification |
|-------------------------|--------------------|
| Acute Tox. 4, H302 | Calculation method |
| Eye Dam. 1, H318 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| Muta. 1B, H340 | Calculation method |
| STOT RE 2, H373 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

Full text of abbreviated H statements

| | |
|------|--|
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H331 | Toxic if inhaled. |
| H340 | May cause genetic defects. |
| H351 | Suspected of causing cancer. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

Full text of classifications

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SECTION 16: Other information

| | |
|-------------------|---|
| Acute Tox. 3 | ACUTE TOXICITY - Category 3 |
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 |
| Carc. 2 | CARCINOGENICITY - Category 2 |
| Eye Dam. 1 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 |
| Muta. 1B | GERM CELL MUTAGENICITY - Category 1B |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |
| STOT RE 1 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1 |
| STOT RE 2 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 |

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