

# SAFETY DATA SHEET



## Jotapipe DL 3002 21S

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

#### 1.1 Product identifier

**Product name** : Jotapipe DL 3002 21S  
**Product code** : 16427  
**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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**Original preparation date** : 01.09.2023

#### 1.4 Emergency telephone number

##### National Poison Information Center

- +90 224 442 82 93 Uludağ Üniversitesi Zehir Danışma Merkezi ([www.uludag.edu.tr/uludag/zehir.html](http://www.uludag.edu.tr/uludag/zehir.html))  
a. ACİL DURUM TELEFONU: Zehirlenme durumlarında gerektiğinde ulusal zehir merkezinin (UZEM) 114 nolu telefonunu arayınız.  
b. ACİL İLK YARDIM MERKEZİ:112  
c. İTFAİYE:110

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

**Classification according to regulation SEA: RG.-10/12/2020-31330**

Eye Dam. 1, H318

Skin Sens. 1, H317

Repr. 1B, H360F

Aquatic Chronic 1, H410

The product is classified as hazardous according to Regulation SEA: RG.-10/12/2020-31330.

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.

**Hazard statements** : H317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H360F - May damage fertility.  
H410 - Very toxic 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 and eye or face protection.  
P273 - Avoid release to the environment.  
P261 - Avoid breathing dust.

**Response** : P391 - Collect spillage.  
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.

**Hazardous ingredients** : 4,4'-isopropylidenediphenol  
phenol, polymer with formaldehyde, glycidyl ether

**Supplemental label elements** : Contains epoxy constituents. May produce an allergic reaction.

**Annex 17 - 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

**SECTION 2: Hazards identification**

- Product meets the criteria for PBT or vPvB** : 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                      | %    | SEA: RG.-10/12/2020-31330  | Type    |
|---|----------------------------------|------|--|---------|
| barium sulfate                                    | EC: 231-784-4<br>CAS: 7727-43-7  | ≤10  | Not classified.  | [2]     |
| 4,4'-isopropylidenediphenol                       | EC: 201-245-8<br>CAS: 80-05-7    | ≤5   | Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>Repr. 1B, H360F<br>STOT SE 3, H335<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=10)                                    | [1] [2] |
| phenol, polymer with formaldehyde, glycidyl ether | CAS: 28064-14-4                  | ≤5   | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Chronic 2, H411   | [1]     |
| titanium dioxide                                  | EC: 236-675-5<br>CAS: 13463-67-7 | ≤3   | Not classified.  | [2]     |
| calcium oxide                                     | EC: 215-138-9<br>CAS: 1305-78-8  | ≤3   | Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>STOT SE 3, H335   | [1] [2] |
| 1h-imidazole, 2-methyl-                           | CAS: 693-98-1                    | <0.3 | Acute Tox. 4, H302<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Carc. 2, H351<br>Repr. 1B, H360D<br><b>See Section 16 for the full text of the H statements declared above.</b> | [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 or vPvBs 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

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.

**SECTION 4: First aid measures**

- 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.
- 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****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** : 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:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
stomach pains  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

**4.3 Indication of any immediate medical attention and special treatment needed**

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**5.2 Special hazards arising from the substance or mixture**

**Hazards from the substance or mixture** : This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Fine dust clouds may form explosive mixtures with air.

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

**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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

**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. Collect spillage.

**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.

## SECTION 6: Accidental release measures

**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. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not 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.

### Regulation on the prevention of major industrial accidents and reduction of their effects - Reporting thresholds

#### Danger criteria

| Category | Notification and MAPP threshold | Safety report threshold |
|----------|---------------------------------|-------------------------|
| E1       | 100 tonne                       | 200 tonne               |

### 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

Dust Limit : 10 mg/m<sup>3</sup> (TWA of total inhalable dust) and 4 mg/m<sup>3</sup> (TWA of respirable)

#### Occupational exposure limits

**SECTION 8: Exposure controls/personal protection**

| Product/ingredient name     | Exposure limit values  |
|-----------------------------|--|
| barium sulfate              | <b>ACGIH TLV (United States, 7/2023).</b><br>TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction  |
| 4,4'-isopropylidenediphenol | <b>TR ISGGM OEL (Turkey, 12/2013).</b><br>TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Respirable dust   |
| titanium dioxide            | <b>EU OEL (Europe).</b><br>TWA: 5 mg/m <sup>3</sup> 8 hours.   |
| calcium oxide               | <b>EU OEL (Europe, 1/2022). Notes:</b><br>STEL: 4 mg/m <sup>3</sup> 15 minutes. Form: Respirable fraction<br>TWA: 1 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction |

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

| Product/ingredient name     | Type                  | Exposure              | Value                | Population         | Effects  |
|-----------------------------|-----------------------|-----------------------|----------------------|--------------------|----------|
| barium sulfate              | DNEL                  | Long term Inhalation  | 10 mg/m <sup>3</sup> | Workers            | Local    |
|                             | DNEL                  | Long term Inhalation  | 10 mg/m <sup>3</sup> | General population | Systemic |
| 4,4'-isopropylidenediphenol | DNEL                  | Long term Inhalation  | 10 mg/m <sup>3</sup> | Workers            | Systemic |
|                             | DNEL                  | Long term Oral        | 13000 mg/kg bw/day   | General population | Systemic |
|                             | DNEL                  | Short term Dermal     | 24 µg/kg bw/day      | General population | Systemic |
|                             | DNEL                  | Long term Dermal      | 24 µg/kg bw/day      | General population | Systemic |
|                             | DNEL                  | Short term Oral       | 53 µg/kg bw/day      | General population | Systemic |
|                             | DNEL                  | Long term Oral        | 53 µg/kg bw/day      | General population | Systemic |
|                             | DNEL                  | Short term Dermal     | 66 µg/kg bw/day      | Workers            | Systemic |
|                             | DNEL                  | Long term Dermal      | 66 µg/kg bw/day      | Workers            | Systemic |
|                             | DNEL                  | Short term Inhalation | 1 mg/m <sup>3</sup>  | General population | Local    |
|                             | DNEL                  | Long term Inhalation  | 1 mg/m <sup>3</sup>  | General population | Local    |
|                             | DNEL                  | Short term Inhalation | 1 mg/m <sup>3</sup>  | General population | Systemic |
|                             | DNEL                  | Long term Inhalation  | 1 mg/m <sup>3</sup>  | General population | Systemic |
|                             | DNEL                  | Short term Inhalation | 2 mg/m <sup>3</sup>  | Workers            | Local    |
|                             | DNEL                  | Long term Inhalation  | 2 mg/m <sup>3</sup>  | Workers            | Local    |
| DNEL                        | Short term Inhalation | 2 mg/m <sup>3</sup>   | Workers              | Systemic           |          |
| DNEL                        | Long term Inhalation  | 2 mg/m <sup>3</sup>   | Workers              | Systemic           |          |

**SECTION 8: Exposure controls/personal protection**

|                         |      |                       |                   |                    |          |
|-------------------------|------|-----------------------|-------------------|--------------------|----------|
| titanium dioxide        | DNEL | Long term Inhalation  | 28 µg/m³          | General population | Local    |
|                         | DNEL | Long term Inhalation  | 170 µg/m³         | Workers            | Local    |
| calcium oxide           | DNEL | Long term Inhalation  | 1 mg/m³           | General population | Local    |
|                         | DNEL | Long term Inhalation  | 1 mg/m³           | Workers            | Local    |
|                         | DNEL | Short term Inhalation | 4 mg/m³           | General population | Local    |
|                         | DNEL | Short term Inhalation | 4 mg/m³           | Workers            | Local    |
| 1h-imidazole, 2-methyl- | DNEL | Long term Oral        | 0.02 mg/kg bw/day | General population | Systemic |
|                         | DNEL | Long term Dermal      | 0.04 mg/kg bw/day | Workers            | Systemic |
|                         | DNEL | Long term Inhalation  | 0.3 mg/m³         | 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. Wear suitable gloves tested to ISO 374-1:2016. Recommended, gloves(breakthrough time) > 8 hours: neoprene (> 0.35 mm), PVC (> 0.5 mm), nitrile rubber (> 0.75 mm), butyl rubber (> 0.4 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.



## SECTION 8: Exposure controls/personal protection

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.
- 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.
- 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.

## 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 (solid, gas)** : Fine dust clouds may form explosive mixtures with air.
- Lower explosion limit (dust)** : 30 g/m<sup>3</sup>
- Minimum ignition energy (mJ)** : 10 - 30 (EN 13821)
- Flash point** :  
Not applicable.
- Auto-ignition temperature** : > 400°C
- Decomposition temperature** : >250°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.  
Not applicable.

**Density** : 1.5 to 1.6 g/cm<sup>3</sup>

**Vapour density** : Not applicable.

**Explosive properties** : Not available.

**Oxidising properties** : Not available.

#### Particle characteristics

**SECTION 9: Physical and chemical properties****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** : The product is stable.
- 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** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

| Product/ingredient name | Result    | Species | Dose       | Exposure |
|-------------------------|-----------|---------|------------|----------|
| 1h-imidazole, 2-methyl- | LD50 Oral | Mouse   | 1400 mg/kg | -        |

**Conclusion/Summary** : Not available.**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) |
|-------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| 1h-imidazole, 2-methyl- | 500          | N/A            | N/A                      | N/A                         | N/A                                 |

**Irritation/Corrosion**

| Product/ingredient name                           | Result                 | Species                      | Score | Exposure                | Observation |
|---|------------------------|------------------------------|-------|-------------------------|-------------|
| 4,4'-isopropylidenediphenol                       | Eyes - Irritant        | Mammal - species unspecified | -     | -                       | -           |
|   | Eyes - Severe irritant | Rabbit                       | -     | 24 hours 250 Micrograms | -           |
|   | Skin - Mild irritant   | Rabbit                       | -     | 250 milligrams          | -           |
|   | Skin - Mild irritant   | Rabbit                       | -     | 24 hours 500 milligrams | -           |
| phenol, polymer with formaldehyde, glycidyl ether | Eyes - Mild irritant   | Mammal - species unspecified | -     | -                       | -           |
|   | Skin - Mild irritant   | Mammal - species unspecified | -     | -                       | -           |
| titanium dioxide<br>calcium oxide                 | Skin - Mild irritant   | Human                        | -     | 72 hours                | -           |
|   | Eyes - Irritant        | Mammal - species unspecified | -     | -                       | -           |

## SECTION 11: Toxicological information

|  |                      |                              |   |   |   |
|--|----------------------|------------------------------|---|---|---|
|  | Skin - Mild irritant | Mammal - species unspecified | - | - | - |
|--|----------------------|------------------------------|---|---|---|

**Conclusion/Summary** : Not available.

### Sensitisation

| Product/ingredient name                           | Route of exposure | Species                      | Result      |
|---|-------------------|------------------------------|-------------|
| 4,4'-isopropylidenediphenol                       | skin              | Mammal - species unspecified | Sensitising |
| phenol, polymer with formaldehyde, glycidyl ether | skin              | Mammal - species unspecified | Sensitising |

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

| Product/ingredient name     | Category   | Route of exposure | Target organs                |
|-----------------------------|------------|-------------------|------------------------------|
| 4,4'-isopropylidenediphenol | Category 3 | -                 | Respiratory tract irritation |
| calcium oxide               | Category 3 | -                 | Respiratory tract irritation |

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**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** : 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:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

## SECTION 11: Toxicological information

- Skin contact** : Adverse symptoms may include the following:  
 pain or irritation  
 redness  
 blistering may occur  
 reduced foetal weight  
 increase in foetal deaths  
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
 stomach pains  
 reduced foetal weight  
 increase in foetal deaths  
 skeletal malformations

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

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

#### Long term exposure

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

#### Potential chronic health effects

Not available.

- Conclusion/Summary** : Not available.
- General** : 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.
- Reproductive toxicity** : May damage fertility.

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name     | Result  | Species   | Exposure                         |
|-----------------------------|---|---|----------------------------------|
| 4,4'-isopropylidenediphenol | Acute EC50 1.506 mg/l                             | Algae - Procoentrum minimum   | 72 hours                         |
|                             | Acute EC50 1000 µg/l Marine water                 | - Exponential growth phase  | 96 hours                         |
|                             |   | Algae - Skeletonema costatum  |                                  |
|                             | Acute EC50 7.75 mg/l Fresh water                  | Daphnia - Daphnia magna - Neonate   | 48 hours                         |
|                             | Acute LC50 1.34 mg/l Marine water                 | Crustaceans - Americamysis bahia - Larvae                                   | 48 hours                         |
|                             | Acute LC50 3.5 mg/l Marine water                  | Fish - Rivulus marmoratus - Embryo  | 96 hours                         |
|                             | Chronic NOEC 2 mg/l Fresh water                   | Algae - Chlorobion braunii - Exponential growth phase                       | 4 days                           |
|                             | Chronic NOEC 0.05 mg/l Fresh water                | Crustaceans - Asellus aquaticus - Juvenile (Fledgling, Hatchling, Weanling) | 21 days                          |
|                             | Chronic NOEC 30 µg/l Fresh water                  | Daphnia - Daphnia magna - Neonate   | 21 days                          |
|                             | phenol, polymer with formaldehyde, glycidyl ether | Chronic NOEC 0.2 µg/l Fresh water   | Fish - Carassius auratus - Adult |
| Acute EC50 3.3 mg/l         |   | Daphnia   | 48 hours                         |
| titanium dioxide            | Acute LC50 7.5 mg/l                               | Fish  | 96 hours                         |
|                             | Acute LC50 3 mg/l Fresh water                     | Crustaceans - Ceriodaphnia  | 48 hours                         |

## SECTION 12: Ecological information

|                         |  |  |          |
|-------------------------|--|--|----------|
| 1h-imidazole, 2-methyl- | Acute LC50 6.5 mg/l Fresh water              | dubia - Neonate<br>Daphnia - Daphnia pulex - Neonate | 48 hours |
|                         | Acute LC50 >1000000 µg/l Marine water        | Fish - Fundulus heteroclitus                         | 96 hours |
|                         | Acute LC50 286000 to 307000 µg/l Fresh water | Fish - Pimephales promelas                           | 96 hours |

**Conclusion/Summary** : This material is very toxic to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

| Product/ingredient name                           | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
| phenol, polymer with formaldehyde, glycidyl ether | -                 | -          | Not readily      |

### 12.3 Bioaccumulative potential

| Product/ingredient name     | LogP <sub>ow</sub> | BCF      | Potential |
|-----------------------------|--------------------|----------|-----------|
| 4,4'-isopropylidenediphenol | 3.4                | 20 to 67 | low       |
| calcium oxide               | -                  | 2.34     | low       |
| 1h-imidazole, 2-methyl-     | 0.24               | -        | low       |

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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** : Yes.

#### Waste list

| Waste code | Waste code definition   |
|------------|---|
| 08 01 11*  | Waste paint and varnish containing organic solvents or other dangerous substances |









#### 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.

## SECTION 13: Disposal considerations

**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   |
|--|--|--|---|--|
| <b>14.1 UN number</b>                  | UN3077   | UN3077   | UN3077  | UN3077   |
| <b>14.2 UN proper shipping name</b>    | Environmentally hazardous substance, solid, n.o.s. (bisphenol a)   | Environmentally hazardous substance, solid, n.o.s. (bisphenol a)   | Environmentally hazardous substance, solid, n.o.s. (bisphenol a). Marine pollutant (bisphenol a, phenol, polymer with formaldehyde, glycidyl ether)                         | Environmentally hazardous substance, solid, n.o.s. (bisphenol a)   |
| <b>14.3 Transport hazard class(es)</b> | 9<br>  | 9<br>  | 9<br>  | 9<br>  |
| <b>14.4 Packing group</b>              | III  | III  | III   | III  |
| <b>14.5 Environmental hazards</b>      | Yes.   | Yes.   | Yes.  | Yes.   |

### Additional information

**ADR/RID**

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**Hazard identification number** 90

**Tunnel code** (-)

**ADN**

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**IMDG**

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**Emergency schedules** F-A, S-F

**IATA**

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

**Marking**

: The environmental hazardous / marine pollutant mark is only applicable for packages containing more than 5 litres for liquids and 5 kg for solids.

**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****Turkey Regulation No. 30105, KKDIK****Annex 14 - List of substances subject to authorization****Annex 14**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Annex 17 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Restricted to professional users.

**Ozone depleting substances**

Not listed.

**Regulation on the prevention of major industrial accidents and reduction of their effects**

This product is controlled under the Regulation on the prevention of major industrial accidents and reduction of their effects.

**Danger criteria**

| Category |
|----------|
| E1       |

**EU regulations****EU Regulation (EC) No. 1907/2006 (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 |
|--|----------------------------------|------------------------|-------------------------|------------------|
| Toxic to reproduction                            | Bisphenol-A<br>2-methylimidazole | Candidate<br>Candidate | -<br>D(2020)<br>4578-DC | -<br>25.06.2020  |
| Endocrine disrupting properties for human health | 4,4'-isopropylidenediphenol      | Recommended            | ED/01/2018              | 01.10.2019       |
| Endocrine disrupting properties for environment  | 4,4'-isopropylidenediphenol      | Recommended            | ED/01/2018              | 01.10.2019       |

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

**Prior Informed Consent (PIC) (649/2012/EU)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

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

## SECTION 15: Regulatory information

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.

### 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  
 EUH statement = SEA-specific Hazard statement  
 N/A = Not available  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 SGG = Segregation Group  
 vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification according to regulation SEA: RG.-10/12/2020-31330

| Classification          | Justification      |
|-------------------------|--------------------|
| Eye Dam. 1, H318        | Calculation method |
| Skin Sens. 1, H317      | Calculation method |
| Repr. 1B, H360F         | Calculation method |
| Aquatic Chronic 1, H410 | Calculation method |

### Full text of abbreviated H statements

|       |   |
|-------|---|
| H302  | Harmful if swallowed.                                 |
| H314  | Causes severe skin burns and eye damage.              |
| H315  | Causes skin irritation.                               |
| H317  | May cause an allergic skin reaction.                  |
| H318  | Causes serious eye damage.                            |
| H335  | May cause respiratory irritation.                     |
| H351  | Suspected of causing cancer.                          |
| H360D | May damage the unborn child.                          |
| H360F | May damage fertility.                                 |
| H400  | Very toxic to aquatic life.                           |
| H410  | Very toxic to aquatic life with long lasting effects. |
| H411  | Toxic to aquatic life with long lasting effects.      |

### Full text of classifications [SEA/GHS]

|                   |   |
|-------------------|---|
| Acute Tox. 4      | ACUTE TOXICITY - Category 4                                   |
| Aquatic Acute 1   | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1                |
| Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1               |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2               |
| Carc. 2           | CARCINOGENICITY - Category 2                                  |
| Eye Dam. 1        | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1                |
| Repr. 1B          | REPRODUCTIVE TOXICITY - Category 1B                           |
| Skin Corr. 1C     | SKIN CORROSION/IRRITATION - Category 1C                       |
| Skin Irrit. 2     | SKIN CORROSION/IRRITATION - Category 2                        |
| Skin Sens. 1      | SKIN SENSITISATION - Category 1                               |
| STOT SE 3         | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |

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: 22.02.2024



## SECTION 16: Other information

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### Notice to reader

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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.