

# SAFETY DATA SHEET

CLAROFAST

## Section 1. Identification

**Product identifier** : CLAROFAST  
**Cat. No.** : 40100053, 40100054, 40100055  
**Container size** : 1 kg, 7.5 kg, 25 kg  
**Other means of identification** : Not available.  
**Product type** : Powder.

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

**Product use** : For embedding of materialographic specimens  
**Area of application** : Professional applications.

**Supplier's details** : Struers ApS Singapore Branch  
1008 Toa Payoh North  
#05-07/08  
Singapore 318996  
Singapore  
Telephone: +65 ( ) 3165 0200

**e-mail address of person responsible for this SDS** : sdsquestions@struers.dk

**Emergency telephone number (with hours of operation)** : 24-hour Emergency Medical Service (EMS): 995.

## Section 2. Hazards identification

**Classification of the substance or mixture** : H411 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

### GHS label elements

**Hazard pictograms**



**Signal word** : No signal word.

**Hazard statements** : H411 - Toxic to aquatic life with long lasting effects.

### Precautionary statements

**Prevention** : P273 - Avoid release to the environment.

**Response** : P391 - Collect spillage.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Version** : 2

**Date of issue/Date of revision** : 3/20/2026

## Section 2. Hazards identification

Other hazards which do not result in classification : Warning: May form explosible dust-air mixture if dispersed.

## Section 3. Composition/information on ingredients

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

| Ingredient name     | %           | Identifiers  |
|---------------------|-------------|--------------|
| Methyl methacrylate | ≥0.3 - <1   | CAS: 80-62-6 |
| dibenzoyl peroxide  | ≥0.1 - <0.3 | CAS: 94-36-0 |

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.

Chemical formula : Not applicable.

## Section 4. First aid measures

### Description of necessary first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

**Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

**Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

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

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Skin contact** : No specific data.

## Section 4. First aid measures

**Ingestion** : No specific data.

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

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

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

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical powder.  
In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : May form explosible dust-air mixture if dispersed. This material is 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.

**Hazardous thermal decomposition products** : No specific data.

**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. Avoid breathing dust. 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. Collect spillage.

## Section 6. Accidental release measures

### Methods and material for containment and cleaning up

- Small spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. Absorb spill with inert material (e.g. dry sand or earth) and place in a chemical waste container.
- Large spill** : 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. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid release to the environment. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. 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. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

## Section 8. Exposure controls/personal protection

| Ingredient name                                                                   | Exposure limits                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> methyl methacrylate<br><br>dibenzoyl peroxide | <b>Workplace Safety and Health Act (Singapore, 1/2025)</b><br>PEL (long term) 8 hours: 100 ppm.<br>PEL (long term) 8 hours: 410 mg/m <sup>3</sup> .<br><b>Workplace Safety and Health Act (Singapore, 1/2025)</b><br>PEL (long term) 8 hours: 5 mg/m <sup>3</sup> . |

### Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : Use only with adequate ventilation. 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. 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.
- Skin protection**
- Hand protection** : ☒ Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.  
Recommended: Nitrile gloves. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.
- 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.

## Section 8. Exposure controls/personal protection

- 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. Recommended: particulate filter: P3
- Thermal hazards** : Not available.

## 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** : Solid.
- Colour** : White.
- Odour** : Characteristic.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : 150 to 230°C (302 to 446°F)
- Boiling point or initial boiling point and boiling range** : Not available.
- Flash point** : Not applicable.
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not applicable.
- Vapour pressure** : Not applicable.
- Relative vapour density** : Not applicable.
- Relative density** : 1.18
- Solubility(ies)** :

| Media | Result      |
|-------|-------------|
| water | Not soluble |

- Miscible with water** : No.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C (104°F)): Not available.
- Flow time (ISO 2431)** : Not available.

### Particle characteristics

- Median particle size** : Not available.

### Other information

- Physical/chemical properties comments** : No additional information.

## Section 10. Stability and reactivity

|                                           |                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.                                                                                                                                                                                                                                                             |
| <b>Chemical stability</b>                 | : The product is stable.                                                                                                                                                                                                                                                                                                                                 |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.<br>Under normal conditions of storage and use, hazardous polymerisation will not occur.                                                                                                                                                                                |
| <b>Conditions to avoid</b>                | : 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. |
| <b>Incompatible materials</b>             | : Reactive or incompatible with the following materials:<br>oxidising materials                                                                                                                                                                                                                                                                          |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.                                                                                                                                                                                                                                                   |
| <b>SADT</b>                               | : Not available.                                                                                                                                                                                                                                                                                                                                         |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name                                                                                 | Result                                                                 |                                                                                                                            |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|  methyl methacrylate | <b>Rat - Oral - LD50</b><br>7872 mg/kg                                 | <u>Toxic effects:</u> Behavioral - Muscle weakness Behavioral - Coma Lung, Thorax, or Respiration - Respiratory depression |
|                                                                                                         | <b>Rabbit - Dermal - LD50</b><br>>5 g/kg                               | <u>Toxic effects:</u> Skin After systemic exposure - Dermatitis, other                                                     |
|                                                                                                         | <b>Rat - Inhalation - LC50 Vapour</b><br>29.8 mg/l [4 hours]           |                                                                                                                            |
| dibenzoyl peroxide                                                                                      | <b>Rat - Oral - LD50</b><br>6400 mg/kg                                 |                                                                                                                            |
|                                                                                                         | <b>Rat - Inhalation - LC50 Dusts and mists</b><br>>24.3 mg/l [4 hours] |                                                                                                                            |

**Conclusion/Summary[Product]** : Not available.

#### Skin corrosion/irritation

**Conclusion/Summary[Product]** : Not available.

#### Serious eye damage/eye irritation

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## Section 11. Toxicological information

**Product/ingredient name**

Benzoyl peroxide

**Result****Rabbit - Eyes - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

**Conclusion/Summary[Product]** : Not available.**Respiratory corrosion/irritation****Conclusion/Summary[Product]** : Not available.**Respiratory or skin sensitization****Skin****Conclusion/Summary[Product]** : Not available.**Respiratory****Conclusion/Summary[Product]** : Not available.**Germ cell mutagenicity****Conclusion/Summary[Product]** : Not available.**Carcinogenicity****Conclusion/Summary[Product]** : Not available.**Reproductive toxicity****Conclusion/Summary[Product]** : Not available.**Specific target organ toxicity (single exposure)****Product/ingredient name**

Methyl methacrylate

**Result**

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

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

Not available.

**Aspiration hazard**

Not available.

**Information on likely routes of exposure**

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

**Potential acute health effects**

## Section 11. Toxicological information

|                     |                                                                                                                                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye contact</b>  | : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.                   |
| <b>Inhalation</b>   | : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. |
| <b>Skin contact</b> | : No known significant effects or critical hazards.                                                                                      |
| <b>Ingestion</b>    | : No known significant effects or critical hazards.                                                                                      |

### Symptoms related to the physical, chemical and toxicological characteristics

|                     |                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------|
| <b>Eye contact</b>  | : Adverse symptoms may include the following:<br>irritation<br>redness                    |
| <b>Inhalation</b>   | : Adverse symptoms may include the following:<br>respiratory tract irritation<br>coughing |
| <b>Skin contact</b> | : No specific data.                                                                       |
| <b>Ingestion</b>    | : No specific data.                                                                       |

### 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

**Conclusion/Summary[Product]** : Not available.

|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| <b>General</b>               | : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. |
| <b>Carcinogenicity</b>       | : No known significant effects or critical hazards.                                    |
| <b>Mutagenicity</b>          | : No known significant effects or critical hazards.                                    |
| <b>Reproductive toxicity</b> | : No known significant effects or critical hazards.                                    |

### Numerical measures of toxicity

#### 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) |
|-------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| methyl methacrylate     | 7872         | N/A            | N/A                      | 29.8                        | N/A                                 |
| dibenzoyl peroxide      | 6400         | N/A            | N/A                      | N/A                         | N/A                                 |

## Section 12. Ecological information

### Toxicity

#### Product/ingredient name

 methyl methacrylate

#### Result

**Acute - LC50 - Fresh water**

Fish - Fathead minnow - *Pimephales promelas* - Adult  
130 mg/l [96 hours]

Effect: Mortality

**Acute - EC50 - Fresh water**

Algae  
>110 mg/l [72 hours]

EPA 201 [Alga, Growth Inhibition Test]

dibenzoyl peroxide

**Acute - LC50 - Fresh water**

Fish - *Oncorhynchus mykiss*  
0.06 mg/l [96 hours]

OECD 203 [Fish, Acute Toxicity Test]

**Acute - EC50 - Fresh water**

Daphnia - *Daphnia magna*  
0.11 mg/l [48 hours]

OECD 202 [Daphnia sp. Acute Immobilization Test and Reproduction Test]

**Acute - EC50 - Fresh water**

Algae  
0.042 mg/l [72 hours]

OECD 201 [Alga, Growth Inhibition Test]

**Acute - NOEC - Fresh water**

Algae  
0.02 mg/l [72 hours]

OECD 201 [Alga, Growth Inhibition Test]

**Chronic - NOEC - Fresh water**

Daphnia - *Daphnia magna*  
0.001 mg/l [21 days]

OECD 211 [Daphnia Magna Reproduction Test]

**Conclusion/Summary[Product]** : Not available.

### Persistence and degradability

#### Product/ingredient name

 dibenzoyl peroxide

#### Result

**Aerobic**

71% [28 days] - Readily

OECD 301D [ Ready Biodegradability - Closed Bottle Test]

**Conclusion/Summary[Product]** : Not available.

| Product/ingredient name                                                                       | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------------------------------------------------------------------------|-------------------|------------|------------------|
|  CLAROFAST | -                 | -          | Not readily      |
| methyl methacrylate                                                                           | -                 | -          | Readily          |
| dibenzoyl peroxide                                                                            | -                 | -          | Readily          |

### Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| methyl methacrylate     | 1.38               | -   | Low       |
| dibenzoyl peroxide      | 3.2                | -   | Low       |

### Mobility in soil

**Soil/water partition coefficient** : Not available.

### Other adverse effects

No known significant effects or critical hazards.

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## 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                            | UN                                                                                                                                                                              | IMDG                                                                                                                                                                            | IATA                                                                                                                                                                            | ADR/RID                                                                                                                                                                             | ADN                                                                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UN number                  | UN3077                                                                                                                                                                          | UN3077                                                                                                                                                                          | UN3077                                                                                                                                                                          | UN3077                                                                                                                                                                              | UN3077                                                                                                                                                                              |
| UN proper shipping name    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)                                                                                                         | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)                                                                                                         | Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide)                                                                                                         | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)                                                                                                             | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)                                                                                                             |
| Transport hazard class(es) | 9<br><br> | 9<br><br> | 9<br><br> | 9<br><br> | 9<br><br> |
| Packing group              | III                                                                                                                                                                             | III                                                                                                                                                                             | III                                                                                                                                                                             | III                                                                                                                                                                                 | III                                                                                                                                                                                 |
| Environmental hazards      | Yes.                                                                                                                                                                            | Yes.                                                                                                                                                                            | Yes.                                                                                                                                                                            | Yes.                                                                                                                                                                                | Yes.                                                                                                                                                                                |

### Additional information

#### UN

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.

**Special provisions** 274, 331, 335, 375

#### 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

**Special provisions** 274, 335, 375, 966, 967, 969

## Section 14. Transport information

- 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.  
**Quantity limitation** Passenger and Cargo Aircraft: 400 kg. Packaging instructions: 956. Cargo Aircraft Only: 400 kg. Packaging instructions: 956. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y956.  
**Special provisions** A97, A158, A179, A197, A215
- 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  
**Limited quantity** 5 kg  
**Special provisions** 274, 335, 601, 375  
**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.  
**Special provisions** 274, 335, 375, 601
- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

## Section 15. Regulatory information

### Singapore - hazardous chemicals under government control

None.

### 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 issue/Date of revision | : 3/20/2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Date of previous issue         | : 1/13/2025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Version                        | : 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Prepared by                    | : Sphera Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Key to abbreviations           | : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway<br>ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road<br>ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>IMO = International Maritime Organization<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>N/A = Not available<br>RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail<br>SGG = Segregation Group<br>UN = United Nations |

### Procedure used to derive the classification

| Classification                                  | Justification      |
|-------------------------------------------------|--------------------|
| LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 | Calculation method |

**References** : GHS - Globally Harmonised System of Classification and Labelling of Chemicals  
International transport regulations

Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.