

# SAFETY DATA SHEET

DP-SPRAY

## Section 1. Identification

**Product identifier** : DP-SPRAY  
**Cat. No.** : 40600144, 40600145, 40600146, 40600147, 40600148, 40600149, 40600150, 40600151, 40600152, 40600153, 40600154, 40600155  
**Container size** : 150 ml  
**Other means of identification** : Not available.  
**Product type** : Aerosol.

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

**Product use** : For grinding and polishing for materialographic preparations  
**Area of application** : Professional applications, Used by spraying.

**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** : struers@struers.dk

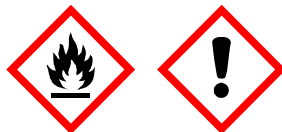
**Emergency telephone number (with hours of operation)** : 24-hour Emergency Medical Service (EMS): 995.

## Section 2. Hazards identification

**Classification of the substance or mixture** : H222, AEROSOLS - Category 1  
H229  
H319 EYE IRRITATION - Category 2A  
H336 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : H222, H229 - Extremely flammable aerosol. Pressurised container: may burst if heated.  
H319 - Causes serious eye irritation.  
H336 - May cause drowsiness or dizziness.

**Precautionary statements**

**Version** : 1.03

**Date of issue/Date of revision** : 2/22/2024

## Section 2. Hazards identification

- Prevention** : P280 - Wear eye or face protection.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 - Do not spray on an open flame or other ignition source.  
P261 - Avoid breathing dust or mist.  
P251 - Do not pierce or burn, even after use.
- Response** : P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical advice or attention.
- Storage** : P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification** : Prolonged or repeated contact may dry skin and cause irritation.

## Section 3. Composition/information on ingredients

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

| Ingredient name   | %         | CAS number |
|-------------------|-----------|------------|
| ethanol           | ≥75 - ≤90 | 64-17-5    |
| Isopropyl alcohol | <10       | 67-63-0    |

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. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : 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. Get medical attention. If necessary, call a poison center or physician. 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** : Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : 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. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : Can cause central nervous system (CNS) depression.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
irritation  
dryness  
cracking
- 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. 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.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray (fog).

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

**Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

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

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Dispose of via a licensed waste disposal contractor.

## Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

- 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 away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name   | Exposure limits                                                                                                                                                                                                                                      |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ethanol           | <b>Workplace Safety and Health Act (Singapore, 2/2006).</b><br>PEL (long term): 1000 ppm 8 hours.<br>PEL (long term): 1880 mg/m <sup>3</sup> 8 hours.                                                                                                |
| Isopropyl alcohol | <b>Workplace Safety and Health Act (Singapore, 2/2006).</b><br>PEL (long term): 400 ppm 8 hours.<br>PEL (long term): 983 mg/m <sup>3</sup> 8 hours.<br>PEL (short term): 1230 mg/m <sup>3</sup> 15 minutes.<br>PEL (short term): 500 ppm 15 minutes. |

### Biological exposure indices

None known.

## Section 8. Exposure controls/personal protection

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### 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.  
Breakthrough time: 240 minutes  
thickness: 0.5 mm

**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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : 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: (as filter combination A2/P2)

**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                                          | : Liquid. [Aerosol.]        |
| Colour                                                  | : Grey.                     |
| Odour                                                   | : Alcohol-like.             |
| Odour threshold                                         | : Not available.            |
| pH                                                      | : Not applicable.           |
| Melting point/freezing point                            | : Not available.            |
| Boiling point, initial boiling point, and boiling range | : Not available.            |
| Flash point                                             | : Closed cup: 13°C (55.4°F) |
| Evaporation rate                                        | : Not available.            |
| Flammability                                            | : Not available.            |
| Lower and upper explosion limit/flammability limit      | : Lower: 3.3%<br>Upper: 19% |
| Vapour pressure                                         | :                           |

| Ingredient name | Vapour Pressure at 20°C |     |        | Vapour pressure at 50°C |     |        |
|-----------------|-------------------------|-----|--------|-------------------------|-----|--------|
|                 | mm Hg                   | kPa | Method | mm Hg                   | kPa | Method |
| ethanol         | 42.94865                | 5.7 |        |                         |     |        |

Relative vapour density : Not available.

Relative density : Not available.

|                 |   |       |         |
|-----------------|---|-------|---------|
| Solubility(ies) | : | Media | Result  |
|                 |   | water | Soluble |

Miscible with water : Yes.

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

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Flow time (ISO 2431) : Not available.

### Particle characteristics

Median particle size : Not applicable.

### Aerosol product

Type of aerosol : Spray

### Other information

Physical/chemical properties comments : VOC content: 700 g/l (calculated)

## 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 all possible sources of ignition (spark or flame).                                                                                                                |
| <b>Incompatible materials</b>             | : Reactive or incompatible with the following materials: 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                                                                       | Species                                | Dose                                                    | Exposure                     |
|-------------------------|------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------|------------------------------|
| ethanol                 | LC50 Inhalation Vapour<br>LD50 Dermal<br>LD50 Oral                           | Rat<br>Rabbit<br>Rat - Male,<br>Female | 124700 mg/m <sup>3</sup><br>>10000 mg/kg<br>10470 mg/kg | 4 hours<br>-<br>-            |
| Isopropyl alcohol       | LC50 Inhalation Vapour<br>LC50 Inhalation Vapour<br>LD50 Dermal<br>LD50 Oral | Rat<br>Rat - Female<br>Rabbit<br>Rat   | 72.6 mg/l<br>47.5 mg/l<br>12800 mg/kg<br>5280 mg/kg     | 4 hours<br>8 hours<br>-<br>- |

**Conclusion/Summary** : Not available.

#### Irritation/Corrosion

| Product/ingredient name | Result                                               | Species          | Score  | Exposure                 | Observation |
|-------------------------|------------------------------------------------------|------------------|--------|--------------------------|-------------|
| ethanol                 | Eyes - Severe irritant<br>Skin - Mild irritant       | Rabbit<br>Rabbit | -<br>- | 500 mg<br>400 mg         | -<br>-      |
| Isopropyl alcohol       | Eyes - Moderate irritant<br>Eyes - Moderate irritant | Rabbit<br>Rabbit | -<br>- | 10 mg<br>24 hours 100 mg | -<br>-      |
|                         | Eyes - Severe irritant<br>Skin - Mild irritant       | Rabbit<br>Rabbit | -<br>- | 100 mg<br>500 mg         | -<br>-      |

#### Conclusion/Summary

**Skin** : Not available.

**Eyes** : Not available.

**Respiratory** : Not available.

#### Sensitisation

#### Conclusion/Summary

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## Section 11. Toxicological information

**Skin** : Not available.

**Respiratory** : 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)

| Name              | Category   | Route of exposure | Target organs    |
|-------------------|------------|-------------------|------------------|
| ethanol           | Category 3 | -                 | Narcotic effects |
| Isopropyl alcohol | Category 3 | -                 | Narcotic effects |

### Specific target organ toxicity (repeated exposure)

| Name              | Category   | Route of exposure | Target organs |
|-------------------|------------|-------------------|---------------|
| Isopropyl alcohol | Category 2 | -                 | liver         |

### Aspiration hazard

Not available.

**Information on likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

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

**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

**Skin contact** : Defatting to the skin. May cause skin dryness and irritation.

**Ingestion** : Can cause central nervous system (CNS) depression.

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

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

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness

## Section 11. Toxicological information

- Skin contact** : Adverse symptoms may include the following:  
irritation  
dryness  
cracking
- Ingestion** : 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

- General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| ethanol                 | 10470        | N/A            | N/A                      | 124.7                       | N/A                                 |
| Isopropyl alcohol       | 5280         | 12800          | N/A                      | 72.6                        | N/A                                 |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name | Result                               | Species                                    | Exposure |
|-------------------------|--------------------------------------|--------------------------------------------|----------|
| ethanol                 | Acute EC50 275 mg/l                  | Algae - <i>Chlorella vulgaris</i>          | 72 hours |
|                         | Acute EC50 3306 mg/l Marine water    | Algae - <i>Ulva pertusa</i>                | 96 hours |
|                         | Acute LC50 5012 mg/l                 | Daphnia - <i>Ceriodaphnia dubia</i>        | 48 hours |
|                         | Acute LC50 1100 mg/l                 | Fish - <i>Alburnus alburnus</i>            | 96 hours |
|                         | Acute LC50 8150 mg/l                 | Fish - <i>Leuciscus idus melanotus</i>     | 48 hours |
|                         | Chronic NOEC 4.995 mg/l Marine water | Algae - <i>Ulva pertusa</i>                | 96 hours |
|                         | Chronic NOEC 100 ul/L Fresh water    | Daphnia - <i>Daphnia magna</i> - Neonate   | 21 days  |
| Isopropyl alcohol       | Acute EC10 5175 mg/l                 | Micro-organism - <i>Pseudomonas putida</i> | 18 hours |
|                         | Acute EC50 >1000 mg/l                | Algae - <i>Desmodesmus</i>                 | 72 hours |

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## Section 12. Ecological information

|  |                                                |                                                                                                  |                      |
|--|------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------|
|  | Acute EC50 13299 mg/l<br>Acute EC50 >1000 mg/l | <i>subspicatus</i><br>Daphnia - <i>Daphnia magna</i><br>Micro-organism - <i>activated sludge</i> | 48 hours<br>18 hours |
|  | Acute LC50 9640000 µg/l Fresh water            | Fish - <i>Pimephales promelas</i>                                                                | 96 hours             |

**Conclusion/Summary** : Not available.

### Persistence/degradability

**Conclusion/Summary** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| DP-SPRAY                | -                 | -          | Readily          |
| ethanol                 | -                 | -          | Readily          |
| Isopropyl alcohol       | -                 | -          | Readily          |

### Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| ethanol                 | -0.35              | -   | Low       |
| Isopropyl alcohol       | 0.05               | -   | Low       |

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

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

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

## Section 14. Transport information

|                                | UN       | IMDG     | IATA                | ADR/RID  | ADN      |
|--------------------------------|----------|----------|---------------------|----------|----------|
| <b>UN number</b>               | UN1950   | UN1950   | UN1950              | UN1950   | UN1950   |
| <b>UN proper shipping name</b> | AEROSOLS | AEROSOLS | Aerosols, flammable | AEROSOLS | AEROSOLS |
|                                |          |          |                     |          |          |

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## Section 14. Transport information

|                             |                                                                                          |                                                                                          |                                                                                          |                                                                                          |                                                                                          |
|-----------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Transport hazard class (es) | 2.1<br> | 2.1<br> | 2.1<br> | 2<br> | 2<br> |
| Packing group               | -                                                                                        | -                                                                                        | -                                                                                        | -                                                                                        | -                                                                                        |
| Environmental hazards       | No.                                                                                      | No.                                                                                      | No.                                                                                      | No.                                                                                      | No.                                                                                      |

### Additional information

- UN : **Special provisions** 63, 190, 277, 327, 344, 381
- IMDG : **Emergency schedules** F-D, S-U  
**Special provisions** 63, 190, 277, 327, 344, 381, 959
- IATA : **Quantity limitation** Passenger and Cargo Aircraft: 75 kg. Packaging instructions: 203. Cargo Aircraft Only: 150 kg. Packaging instructions: 203. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y203.  
**Special provisions** A145, A167, A802
- ADR/RID : **Limited quantity** 1 L  
**Special provisions** 190, 327, 625, 344  
**Tunnel code** (D)
- ADN : **Special provisions** 190, 327, 625, 344

**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 | : 2/22/2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Date of previous issue         | : 12/23/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Version                        | : 1.03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Prepared by                    | : Sphera Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Key to abbreviations           | : 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>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>UN = United Nations |

### Procedure used to derive the classification

| Classification                                                                                                                            | Justification                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| AEROSOLS - Category 1<br>EYE IRRITATION - Category 2A<br>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 | On basis of test data<br>Calculation method<br>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.

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