

# SAFETY DATA SHEET

Hydrocal 45



## Section 1. Identification

|                                      |  |
|--------------------------------------|--|
| <b>GHS product identifier</b>        | : Hydrocal 45  |
| <b>Product code</b>                  | : 300726100000   |
| <b>Chemical name</b>                 | : Distillates (petroleum), hydrotreated light naphthenic   |
| <b>Other means of identification</b> | : Baseoil - unspecified; Distillates, petroleum, hydrotreated light naphthenic; Hydrotreated light naphthenic distillate, solvent extract, petroleum; Mineral oil, petroleum distillates, hydrotreated light naphthenic; Mineral oil, petroleum distillates, hydrotreated (severe) light naphthenic; Hydrotreated light naphthenic distillate (petroleum); Distillates (petroleum), hydro-treated light naphthenic; Hydrotreated light naphthenic distillate solvent extract (petroleum); Hydrotreated light naphthenic distillate; Hydrotreated light naphthenic (petroleum); Hydraulic petroleum oil |
| <b>Product type</b>                  | : Liquid.  |

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

#### Identified uses

Manufacture of substance  
Widespread use by professional workers - Use in cleaning agents; Professional  
Use in cleaning agents; Consumer  
Use at industrial sites; Use in metal working fluids/rolling oils; Industrial  
Widespread use by professional workers - Use in metal working fluids/rolling oils; Professional  
Use at industrial sites; Use in binder and release agents; Industrial  
Widespread use by professional workers - Use in binder and release agents; Professional  
Widespread use by professional workers - Use in agrochemicals; Professional  
Use in rubber production and processing; Industrial  
Use at industrial sites; Use in fuel; Industrial  
Use at industrial sites; Use in fuel; Industrial; Closed systems  
Manufacture of substance; Closed systems  
Widespread use by professional workers - Use in fuel; Professional  
Use at industrial sites; Use in lubricants; Industrial  
Widespread use by professional workers - Use in lubricants; High environmental release; Professional  
Widespread use by professional workers - Use in lubricants; High environmental release; Professional  
Consumer use - Use in lubricants; High environmental release; Consumer  
Consumer use - Use in lubricants; Low environmental release; Consumer  
Use in laboratories; Industrial  
Widespread use by professional workers - Use in coatings; Professional  
Use at industrial sites; Water treatment chemicals; Industrial  
Widespread use by professional workers - Use in water treatment agents; Professional  
Formulation and (re)packing of substances and mixtures  
Widespread use by professional workers - Use in explosives; Professional  
Use at industrial sites; Use in functional fluids; Industrial  
Widespread use by professional workers - Use in functional fluids; Professional  
Use in oil and gas field drilling and production operations; Industrial  
Use in oil and gas field drilling and production operations; Professional  
Use in polymer processing; Industrial  
Use in mining chemicals  
Use in agrochemicals; Consumer  
Use in coatings; Consumer  
Use in road and construction products  
Formulation and (re)packing of substances and mixtures; Closed systems  
Use in fuel; Consumer  
Use in polymer processing; Professional  
Functional fluids; Consumer  
Use at industrial sites; Use as an intermediate  
Use at industrial sites; Use as an intermediate; Closed systems  
Use at industrial sites; Use in coatings; Industrial  
Widespread use by professional workers - Use in coatings; Professional  
Use at industrial sites; Use in cleaning agents; Industrial

## Section 1. Identification

| Uses advised against | Reason |
|----------------------|--------|
| None known.          |        |

**Supplier's details** : Calumet Refining, LLC  
1060 N Capitol Ave Suite 6-401  
Indianapolis, IN 46204  
USA  
Technical Services: 317-328-5660

**Emergency telephone number** : 24 hr. CHEMTREC 1-800-424-9300 / International 1-703-527-3887

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : ASPIRATION HAZARD - Category 1

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : May be fatal if swallowed and enters airways.

### Precautionary statements

**Prevention** : Not applicable.

**Response** : IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.

**Storage** : Store locked up.

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

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Substance

**Chemical name** : Distillates (petroleum), hydrotreated light naphthenic

**Other means of identification** : Baseoil - unspecified; Distillates, petroleum, hydrotreated light naphthenic; Hydrotreated light naphthenic distillate, solvent extract, petroleum; Mineral oil, petroleum distillates, hydrotreated light naphthenic; Mineral oil, petroleum distillates, hydrotreated (severe) light naphthenic; Hydrotreated light naphthenic distillate (petroleum); Distillates (petroleum), hydro-treated light naphthenic; Hydrotreated light naphthenic distillate solvent extract (petroleum); Hydrotreated light naphthenic distillate; Hydrotreated light naphthenic (petroleum); Hydraulic petroleum oil

### CAS number/other identifiers

**CAS number** : 64742-53-6

| Ingredient name  | %   | CAS number |
|--|-----|------------|
| Distillates (petroleum), hydrotreated light naphthenic | 100 | 64742-53-6 |

The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346

## Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

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

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : 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 if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. 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. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : May be fatal if swallowed and enters airways.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

### 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

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

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

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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

## Section 6. Accidental release measures

### 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized 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 spilled 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 materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach 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 spilled 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). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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.

## Section 7. Handling and storage

**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 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 unlabeled 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

| Ingredient name  | Exposure limits   |
|--|---|
| Distillates (petroleum), hydrotreated light naphthenic | <p><b>ACGIH TLV (United States, 1/2022). [Mineral Oil, pure, highly and severely refined]</b><br/>TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction</p> <p><b>OSHA PEL (United States, 5/2018). [Oil mist, mineral]</b><br/>TWA: 5 mg/m<sup>3</sup> 8 hours.</p> <p><b>NIOSH REL (United States, 10/2020). [OIL MIST MINERAL]</b><br/>TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Mist<br/>STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Mist</p> |

#### Biological exposure indices

No exposure indices known.

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**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.

#### Skin protection

## Section 8. Exposure controls/personal 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.
- 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.

## 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.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : 248.89°C (480°F)
- Flash point** : Open cup: 117°C (242.6°F) [Cleveland]
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapor pressure** : Not available.
- Relative vapor density** : Not available.
- Relative density** : 0.893
- Solubility(ies)** :
- | Media      | Result      |
|------------|-------------|
| cold water | Not soluble |
| hot water  | Not soluble |
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): 5.41 mm<sup>2</sup>/s (5.41 cSt)
- Flow time (ISO 2431)** : Not available.
- Pour point** : -62°C (-79.6°F)
- Particle characteristics**
- Median particle size** : Not applicable.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name                                | Result                          | Species | Dose        | Exposure |
|--|---------------------------------|---------|-------------|----------|
| Distillates (petroleum), hydrotreated light naphthenic | LC50 Inhalation Dusts and mists | Rat     | 5.7 mg/l    | 4 hours  |
|  | LD50 Dermal                     | Rabbit  | >2000 mg/kg | -        |
|  | LD50 Oral                       | Rat     | >5000 mg/kg | -        |

#### Irritation/Corrosion

Not available.

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

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

Not available.

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

Not available.

#### Aspiration hazard

| Name   | Result                         |
|--|--------------------------------|
| Distillates (petroleum), hydrotreated light naphthenic | ASPIRATION HAZARD - Category 1 |

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

#### Potential acute health effects

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

## Section 11. Toxicological information

- Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : May be fatal if swallowed and enters airways.

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

- Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

### Delayed and immediate effects and also 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.

- General** : No known significant effects or critical hazards.  
**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 (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| Distillates (petroleum), hydrotreated light naphthenic | N/A          | 2500.0         | N/A                      | N/A                        | N/A                                 |
| Distillates (petroleum), hydrotreated light naphthenic | N/A          | 2500           | N/A                      | N/A                        | 5.7                                 |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name                                | Result               | Species     | Exposure |
|--|----------------------|-------------|----------|
| Distillates (petroleum), hydrotreated light naphthenic | Acute EC50 >100 mg/l | Algae       | 72 hours |
|  | Acute EC50 >100 mg/l | Crustaceans | 48 hours |
|  | Acute LC50 >100 mg/l | Fish        | 96 hours |

### Persistence and degradability

| Product/ingredient name                                | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| Distillates (petroleum), hydrotreated light naphthenic | -                 | -          | Inherent         |

## Section 12. Ecological information

### Bioaccumulative potential

| Product/ingredient name                                | LogP <sub>ow</sub> | BCF | Potential |
|--|--------------------|-----|-----------|
| Distillates (petroleum), hydrotreated light naphthenic | >6                 | -   | High      |

### 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 minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                  | DOT Classification | TDG Classification | IMDG           | IATA           |
|------------------|--------------------|--------------------|----------------|----------------|
| <b>UN number</b> | Not regulated.     | Not regulated.     | Not regulated. | Not regulated. |

**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

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** All components are listed or exempted.  
**Clean Water Act (CWA) 307:** benz[a]anthracene; ethylbenzene; toluene  
**Clean Water Act (CWA) 311:** ethylbenzene; toluene

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

## Section 15. Regulatory information

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : ASPIRATION HAZARD - Category 1

#### Composition/information on ingredients

| Name   | %   | Classification                 |
|--|-----|--------------------------------|
| Distillates (petroleum), hydrotreated light naphthenic | 100 | ASPIRATION HAZARD - Category 1 |

### SARA 313

|  | Product name      | CAS number | %       |
|--|-------------------|------------|---------|
| <b>Form R - Reporting requirements</b> | Benz[a]anthracene | 56-55-3    | 0.00026 |
| <b>Supplier notification</b>           | Benz[a]anthracene | 56-55-3    | 0.00026 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

**Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : None of the components are listed.  
**Pennsylvania** : None of the components are listed.

### California Prop. 65

**⚠ WARNING:** This product can expose you to chemicals including Benz[a]anthracene, which is known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).  
 Information provided is based on industrial use and may not be relevant to consumer applications.

| Ingredient name   | Concentration (%) | No significant risk level | Maximum acceptable dosage level |
|-------------------|-------------------|---------------------------|---------------------------------|
| Benz[a]anthracene | 0.00026           | Yes.                      | -                               |
| cumene            | 0.0002            | -                         | -                               |
| Ethylbenzene      | 0.00018           | Yes.                      | -                               |
| Toluene           | 0.00016           | -                         | Yes.                            |

### International lists

#### National inventory

**Australia** : All components are listed or exempted.  
**Canada** : All components are listed or exempted.  
**China** : All components are listed or exempted.  
**Eurasian Economic Union** : **Russian Federation inventory:** All components are listed or exempted.  
**New Zealand** : All components are listed or exempted.  
**Philippines** : All components are listed or exempted.  
**Republic of Korea** : All components are listed or exempted.  
**Taiwan** : All components are listed or exempted.  
**Thailand** : All components are listed or exempted.  
**Turkey** : All components are listed or exempted.  
**United States** : All components are active or exempted.

## Section 15. Regulatory information

**Viet Nam** : All components are listed or exempted.

## Section 16. Other information

### National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### Procedure used to derive the classification

| Classification                 | Justification      |
|--------------------------------|--------------------|
| ASPIRATION HAZARD - Category 1 | Calculation method |

### History

**Date of issue/Date of revision** : 09/19/2024

**Date of previous issue** : 08/08/2023

**Version** : 7.02

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 N/A = Not available  
 SGG = Segregation Group  
 UN = United Nations

✔ 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.