SAFETY DATA SHEET

Section 1. Identification

<table>
<thead>
<tr>
<th>GHS product identifier</th>
<th>:Circ-Kleen 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>80-724</td>
</tr>
<tr>
<td>Other means of</td>
<td>Not available.</td>
</tr>
<tr>
<td>identification</td>
<td></td>
</tr>
<tr>
<td>Product type</td>
<td>Aerosol.</td>
</tr>
</tbody>
</table>

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

Identified uses
Not applicable.

Uses advised against
Not applicable.

Supplier's details
Kimball Midwest
4800 Roberts Road
Columbus, Ohio 43228
800.233.1294

Emergency telephone number
Chemtrec 1.800.424.9300

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
FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas

GHS label elements
Hazard pictograms

Signal word
Danger

Hazard statements
Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.

Precautionary statements

Prevention
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

Response
Not applicable.

Storage
Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 °C/122 °F.

Disposal
Not applicable.

Hazards not otherwise classified
None known.
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of</td>
<td>Not available.</td>
</tr>
<tr>
<td>identification</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>≤5</td>
<td>110-54-3</td>
</tr>
</tbody>
</table>

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. Get medical attention if irritation occurs.

**Inhalation**
- Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact**
- 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**
- May cause eye irritation.

**Inhalation**
- At very high concentrations, can displace the normal air and cause suffocation from lack of oxygen.

**Skin contact**
- May cause skin irritation.

**Ingestion**
- Do not ingest. If swallowed then seek immediate medical assistance.

**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**
- Adverse symptoms may include the following: irritation, redness

**Ingestion**
- Adverse symptoms may include the following: Ingestion Seek medical attention.

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

**Notes to physician**
- In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**
- No specific treatment.

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

See toxicological information (Section 11)

Date of issue/Date of revision : 7/25/2023  
Date of previous issue : No previous validation  
Version : 1
Section 5. Fire-fighting measures

**Extinguishing media**

| Suitable extinguishing media | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | None known. |

**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. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products**

Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- halogenated compounds
- carbonyl halides

**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 pressurized 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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). Water polluting material. May be harmful to the environment if released in large quantities.

**Methods and materials 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. 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. Use spark-proof tools and explosion-proof equipment. 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.

Date of issue/Date of revision: 7/25/2023
Date of previous issue: No previous validation
Version: 1
Section 7. Handling and storage

Precautions for safe handling

**Protective measures**
- Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures 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 vapor or mist. Avoid release to the environment. 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. Protect from sunlight. 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**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>ACGIH TLV (United States, 1/2022). Absorbed through skin. TWA: 50 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2020). TWA: 180 mg/m³ 10 hours. TWA: 50 ppm 10 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 5/2018). TWA: 1800 mg/m³ 8 hours. TWA: 500 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 180 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>CAL OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 180 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</td>
</tr>
</tbody>
</table>

**Biological exposure indices**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>ACGIH BEI (United States, 1/2022) BEI: 0.5 mg/l, 2,5-hexanedion [in urine]. Sampling time: end of shift.</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**
- Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor 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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Section 8. Exposure controls/personal protection

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

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. 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.

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: Clear. Colorless.
Odor: Hydrocarbon.
Odor threshold: Not available.
pH: Not available.
Melting point/freezing point: Not available.
Boiling point, initial boiling point, and boiling range: Not available.
Flash point: Not applicable.
Flammability: Not available.
Lower and upper explosion limit/flammability limit: Not available.
Vapor pressure: 

Date of issue/Date of revision: 7/25/2023 Date of previous issue: No previous validation Version: 1
Section 9. Physical and chemical properties and safety characteristics

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Vapor Pressure at 20°C</th>
<th>Vapor pressure at 50°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mm Hg</td>
<td>kPa</td>
</tr>
<tr>
<td>1,1-difluoroethane</td>
<td>3859.68</td>
<td>514.6</td>
</tr>
<tr>
<td>2-methylpentane</td>
<td>172.51</td>
<td>23</td>
</tr>
<tr>
<td>n-hexane</td>
<td>127.51</td>
<td>17</td>
</tr>
</tbody>
</table>

Relative density: Not available.
Solubility in water: Not available.
Partition coefficient: n-octanol/water: Not applicable.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Heat of combustion: 25.08 kJ/g
Viscosity: Not available.

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: Avoid all possible sources of ignition (spark or flame).
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

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>48000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>15840 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

Not available.

Mutagenicity

Date of issue/Date of revision: 7/25/2023
Date of previous issue: No previous validation
Version: 1
Section 11. Toxicological information

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
Not available.

Information on the likely routes of exposure

Inhalation
At very high concentrations, can displace the normal air and cause suffocation from lack of oxygen.

Do not ingest. If swallowed then seek immediate medical assistance.

Ingestion

Skin contact
May cause skin irritation.

May cause eye irritation.

Eye contact

Adverse symptoms may include the following:
irritation
redness

Adverse symptoms may include the following:
respiratory tract irritation
coughing

Adverse symptoms may include the following:
irritation
redness

Adverse symptoms may include the following:
Ingestion Seek medical attention.

Symptoms related to the physical, chemical and toxicological characteristics

Potential acute health effects

Eye contact
May cause eye irritation.

Inhalation
At very high concentrations, can displace the normal air and cause suffocation from lack of oxygen.

Skin contact
May cause skin irritation.

Ingestion
Do not ingest. If swallowed then seek immediate medical assistance.

Potential chronic health effects

Not available.

General
No known significant effects or critical hazards.

Carcinogenicity
No known significant effects or critical hazards.

Date of issue/Date of revision : 7/25/2023
Date of previous issue : No previous validation
Version : 1
Section 11. Toxicological information

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

**Reproductive toxicity**: No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapors) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>15840</td>
<td>N/A</td>
<td>48000</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>Acute LC50 2500 µg/l Fresh water</td>
<td>Fish - <em>Pimephales promelas</em></td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

Not available.

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogPow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>4</td>
<td>501.187</td>
<td>High</td>
</tr>
</tbody>
</table>

**Mobility in soil**

**Soil/water partition coefficient (Koc)**: 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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information
Section 14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>Mexico Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1950</td>
<td>UN1950</td>
<td>UN1950</td>
<td>UN1950</td>
<td>UN1950</td>
<td>UN1950</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>AEROSOLS</td>
<td>AEROSOLS</td>
<td>AEROSOLS</td>
<td>AEROSOLS</td>
<td>Aerosols, flammable</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

**Additional information**

- **DOT Classification**: This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.
- **TDG Classification**: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
- **IATA**: The environmentally hazardous substance mark may appear if required by other transportation regulations.
- **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**

- **Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)**: Not 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
- **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**: FLAMMABLE AEROSOLS - Category 1 GASES UNDER PRESSURE - Compressed gas

**Clean Air Act (CAA) 112 regulated flammable substances**: 1,1-difluoroethane

**TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

**SARA 302/304 RQ**: Not applicable.
### Section 15. Regulatory information

**Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpentane</td>
<td>≥25 - ≤50</td>
<td>FLAMMABLE LIQUIDS - Category 2</td>
</tr>
<tr>
<td>1,1-difluoroethane</td>
<td>≥10 - ≤25</td>
<td>FLAMMABLE GASES - Category 1</td>
</tr>
<tr>
<td>n-hexane</td>
<td>≤5</td>
<td>GASES UNDER PRESSURE - Compressed gas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FLAMMABLE LIQUIDS - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EYE IRRITATION - Category 2B</td>
</tr>
</tbody>
</table>

**SARA 313**

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements</td>
<td>n-hexane</td>
<td>110-54-3</td>
</tr>
<tr>
<td>Supplier notification</td>
<td>n-hexane</td>
<td>110-54-3</td>
</tr>
</tbody>
</table>

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**: The following components are listed: ISOHEXANE; DIFLUOROETHANE; HEXANE
- **New York**: The following components are listed: Hexane
- **New Jersey**: The following components are listed: 2-METHYLPENTANE; ISOHEXANE; PENTANE, 2-METHYL-; 1,1-DIFLUOROETHANE; n-HEXANE
- **Pennsylvania**: The following components are listed: PENTANE, 2-METHYL-; HEXANE
- **California Prop. 65**: WARNING: This product can expose you to n-hexane, 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.

**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.
- **UNECE Aarhus Protocol on POPs and Heavy Metals**: Not listed.

**Inventory list**

- **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: Not determined.
- **Japan**: Japan inventory (CSCL): All components are listed or exempted.
  - Japan inventory (ISHL): Not determined.

**Date of issue/Date of revision**: 7/25/2023

**Date of previous issue**: No previous validation

**Version**: 1
Section 15. Regulatory information

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: Not determined.
Turkey: All components are listed or exempted.
United States: All components are active or exempted.
Viet Nam: All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

<table>
<thead>
<tr>
<th>Category</th>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>0</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABLE AEROSOLS - Category 1</td>
<td>On basis of test data</td>
<td></td>
</tr>
<tr>
<td>GASES UNDER PRESSURE - Compressed gas</td>
<td>On basis of test data</td>
<td></td>
</tr>
</tbody>
</table>

History

Date of printing: 7/25/2023
Date of issue/Date of revision: 7/25/2023
Date of previous issue: No previous validation
Version: 1

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
N/A = Not available
SGG = Segregation Group
UN = United Nations

References

Indicates information that has changed from previously issued version.

Date of issue/Date of revision: 7/25/2023
Date of previous issue: No previous validation
Version: 1
Notice to reader

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that the supplier believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of the supplier’s control, the supplier makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.