SECTION 1: identification of the hazardous chemical and of the supplier

Product identifier
Product name: Alcohol-Enhanced Flux Remover-ProClean, Aerosol
Product number: MCC-PRO16A, MCC-PRO, MCC-PRO101, MCC-PRO125, MCC-PRO12Y
Synonyms; trade names: "PRO-ProClean Flux Remover"

Recommended use of the substance or mixture and restrictions on use
Identified uses: Cleaning agent.
Uses advised against: No specific uses advised against are identified.

Details of the supplier of the safety data sheet
Supplier: MICROCARE ASIA PTE LTD
102E, Pasir Panjang Road,
Citilink, #05-06,
Singapore 118529
Phone (65)6271.0182
techsupport@microcare.sg

Manufacturer: MICROCARE LLC
595 John Downey Drive
New Britain, CT 06051
United States of America
CAGE: OATV9
Tel: +1 800-638-0125, +1 860-827-0626
techsupport@microcare.com

Emergency telephone number
Emergency telephone: INFOTRAC +65 3163 5349 (SINGAPORE)
1-352-323-3500 (from anywhere in the world)

SECTION 2: Hazard identification

Classification of the substance or mixture
Classification
Physical hazards: Flam. Aerosol 1 - H222
Health hazards: Eye Irrit. 2 - H319 Repr. 1B - H360 STOT SE 1 - H370 STOT SE 3 - H336
Environmental hazards: Not Classified

Human health: Splashes in the eyes may cause redness and irritation. Keep out of the reach of children. See Section 11 for additional information on health hazards.

Physicochemical: Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Label elements

Pictogram

Signal word Danger

Hazard statements

H222 Extremely flammable aerosol.
H319 Causes serious eye irritation.
H360 May damage fertility or the unborn child.
H370 Causes damage to organs.
H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat/ sparks/ open flames /hot surfaces – No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P261 Avoid breathing spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50oC/122oF.
P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information EUH210 Safety data sheet available on request. RCH001a For use in industrial installations only.

Contains PROPN-2-OL, Methanol

Supplementary precautionary statements

P264 Wash contaminated skin thoroughly after handling.
P271 Use only outdoors or in a wellventilated area.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Other hazards

SECTION 3: Composition and information of the ingredients of the hazardous chemical

Mixtures

| PROPN-2-OL | 30-60% |
| CAS number: 67-63-0 |

Classification Flam. Liq. 2 - H225
Eye Irrit. 2 - H319
STOT SE 3 - H336

| ETHANOL | 30-60% |
| CAS number: 64-17-5 |

Classification Flam. Liq. 2 - H225
## Alcohol-Enhanced Flux Remover-ProClean, Aerosol

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Percentage</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFC-134a Tetrafluoroethane</td>
<td>10-30%</td>
<td>Press. Gas, Liquefied - H280</td>
</tr>
<tr>
<td>Methanol</td>
<td>1-5%</td>
<td>Flam. Liq. 2 - H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 3 - H301</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 3 - H311</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 3 - H331</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye Irrit. 2 - H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Repr. 1B - H360</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOT SE 1 - H370</td>
</tr>
<tr>
<td>4-Methylpentan-2-one</td>
<td>&lt;1%</td>
<td>Flam. Liq. 2 - H225</td>
</tr>
<tr>
<td>Ethyl acetate</td>
<td>&lt;1%</td>
<td>Flam. Liq. 2 - H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye Irrit. 2 - H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOT SE 3 - H336</td>
</tr>
</tbody>
</table>

The full text for all hazard statements is displayed in Section 16.

### Composition comments
The data shown are in accordance with the latest EC Directives.

### Ingredient notes
Denaturants in Ethanol include Methanol, CAS# 67-56-1; MIBK, CAS# 108-10-1 and Ethyl acetate, CAS# 141-78-6

### Composition

#### SECTION 4: First-aid measures

**Description of first aid measures**

**General information**
Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Inhalation
Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.

Ingestion
Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person under observation. Get medical attention if symptoms are severe or persist.

Skin contact
Rinse with water.

Eye contact
Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.

Protection of first aiders
First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information
The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation
A single exposure may cause the following adverse effects: Pain or irritation. Intoxication. Narcotic effect. Muscle weakness. Nausea, vomiting. Prolonged or repeated exposure may cause the following adverse effects: May cause cancer.

Ingestion
Due to the physical nature of this product, it is unlikely that ingestion will occur. Prolonged or repeated exposure may cause the following adverse effects: May cause cancer.

Skin contact
A single exposure may cause the following adverse effects: Pain. Prolonged or repeated exposure may cause the following adverse effects: May cause cancer.

Eye contact
Irritating to eyes.

Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media
The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards
Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Vapours may form explosive mixtures with air.

Hazardous combustion products
Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

Advice for fire-fighters
### Protective actions during firefighting

Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

### Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Fire-fighter's clothing will provide a basic level of protection for chemical incidents.

### Hazchem code

•3YE

### SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions**

Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Risk of explosion. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated.

**Environmental precautions**

Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

#### Methods and material for containment and cleaning up

**Methods for cleaning up**

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

### Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

**Precautions for safe handling**

Usage precautions

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. May cause cancer. May cause genetic defects. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes. Avoid inhalation of vapours and spray/mists.
**Alcohol-Enhanced Flux Remover-ProClean, Aerosol**

### Advice on general occupational hygiene
Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

### Conditions for safe storage, including any incompatibilities
Store away from incompatible materials (see Section 10). Keep away from oxidising materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F.

### Storage precautions
Chemical storage.

### Specific end use(s)
The identified uses for this product are detailed in Section 1.

### Reference to other sections
Store away from incompatible materials (see Section 10).

### SECTION 8: Exposure controls and personal protection

#### Control parameters

#### Occupational exposure limits

**PROPAN-2-OL**
Eight-hour time-weighted average: PEL 400 ppm 983 mg/m³

**ETHANOL**
Eight-hour time-weighted average: PEL 1000 ppm 1880 mg/m³

**METHANOL**
Eight-hour time-weighted average: PEL 200 ppm 262 mg/m³

**4-Methylpentan-2-one**
Eight-hour time-weighted average: PEL 50 ppm 205 mg/m³

**Ethyl acetate**
Eight-hour time-weighted average: PEL 400 ppm 1440 mg/m³

Permissible exposure limit (PEL) skin = Refers to the potential contribution to the overall exposure by the cutaneous route including mucous membranes and eye, either by air-borne or more particularly, by direct contact with the substance.

#### Exposure controls

**Protective equipment**

#### Appropriate engineering controls
Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.

**Eye/face protection**
Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
**Alcohol-Enhanced Flux Remover-ProClean, Aerosol**

**Hand protection**
Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, wear gloves that are proven to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

**Other skin and body protection**
Wear appropriate clothing to prevent any possibility of skin contact.

**Hygiene measures**
Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

**Respiratory protection**
Ensure all respiratory protective equipment is suitable for its intended use. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges suitable for intended use should be used. Full face mask respirators with replaceable filter cartridges suitable for intended use should be used. Half mask and quarter mask respirators with replaceable filter cartridges suitable for intended use should be used.

**Environmental exposure controls**
Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

---

**SECTION 9: Physical and chemical properties**

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear liquid. Colourless.</td>
</tr>
<tr>
<td>Odour</td>
<td>Alcoholic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No information available.</td>
</tr>
<tr>
<td>pH</td>
<td>No information available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>77.6°C/172°F @ 101.3 kPa</td>
</tr>
<tr>
<td>Flash point</td>
<td>17°C/62.6°F Tag open cup.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available.</td>
</tr>
<tr>
<td>Evaporation factor</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper/lower flammability or</td>
<td>Upper flammable/explosive limit: 12.7 %(V) Lower flammable/explosive limit: 2.0 %(V)</td>
</tr>
<tr>
<td>explosive limits</td>
<td></td>
</tr>
<tr>
<td>Other flammability</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>5.2 kPa @ 20°C</td>
</tr>
<tr>
<td>Vapour density</td>
<td>1.82</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.79</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Completely soluble in water.</td>
</tr>
</tbody>
</table>
Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Partition coefficient
No information available.

Auto-ignition temperature
No information available.

Decomposition temperature
No information available.

Viscosity
No information available.

Explosive properties
No information available.

Oxidising properties
There are no chemical groups present in the product that are associated with oxidising properties.

Comments
Aerosol

Global Warming Potential (GWP)

Surface tension

Refractive index
No information available.

Particle size
Not applicable.

Molecular weight
Not applicable.

Volutility
100%

Saturation concentration
No information available.

Critical temperature
No information available.

Volatile organic compound
This product contains a maximum VOC content of 785 g/litre.

Heat of vaporization (at boiling point), cal/g (Btu/lb)

SECTION 10: Stability and reactivity

Reactivity
See the other subsections of this section for further details.

Stability
Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

Possibility of hazardous reactions
The following materials may react strongly with the product: Oxidising agents.

Conditions to avoid
Avoid exposing aerosol containers to high temperatures or direct sunlight. Pressurised container: may burst if heated

Materials to avoid
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

Hazardous decomposition products
Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀)
Based on available data the classification criteria are not met.

ATE oral (mg/kg)
6,274.51
Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Acute toxicity - dermal
Notes (dermal LD₅₀) Based on available data the classification criteria are not met.
ATE dermal (mg/kg) 18,823.53

Acute toxicity - inhalation
Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.
ATE inhalation (vapours mg/l) 188.24
ATE inhalation (dusts/mists mg/l) 31.37

Skin corrosion/irritation
Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation
Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitization
Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization
Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity
Genotoxicity - in vitro May cause genetic defects.

Carcinogenicity
Carcinogenicity May cause cancer.

IARC carcinogenicity
IARC carcinogenicity Contains a substance/a group of substances which may cause cancer. IARC Group 1 Carcinogenic to humans.

Reproductive toxicity
Reproductive toxicity - fertility Based on available data the classification criteria are not met.
Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure
STOT - single exposure STOT SE 3 - H336 May cause drowsiness or dizziness. STOT SE 2 - H371 May cause damage to organs.
Target organs Central nervous system

Specific target organ toxicity - repeated exposure
STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard
Aspiration hazard Based on available data the classification criteria are not met.

General information
General information May cause cancer after repeated exposure. Risk of cancer depends on duration and level of exposure. May cause genetic defects. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation
Inhalation A single exposure may cause the following adverse effects: Pain or irritation. Intoxication. Narcotic effect. Muscle weakness. Nausea, vomiting.

Ingestion
Ingestion Due to the physical nature of this product, it is unlikely that ingestion will occur.
**Alcohol-Enhanced Flux Remover-ProClean, Aerosol**

<table>
<thead>
<tr>
<th>Route of entry</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin and/or eye contact</td>
<td>A single exposure may cause the following adverse effects: Pain.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Irritating to eyes.</td>
</tr>
<tr>
<td>Ingestion, inhalation</td>
<td>Central nervous system</td>
</tr>
</tbody>
</table>

### Toxicological information on ingredients

**PROPAN-2-OL**

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC carcinogenicity</td>
<td>IARC Group 3 Not classifiable as to its carcinogenicity to humans.</td>
</tr>
<tr>
<td>NTP carcinogenicity</td>
<td>Not listed.</td>
</tr>
</tbody>
</table>

**ETHANOL**

<table>
<thead>
<tr>
<th>Acute toxicity - inhalation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity inhalation (LC₅₀ vapours mg/l)</td>
<td>20,000.0</td>
</tr>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>20,000.0</td>
</tr>
</tbody>
</table>

**HFC-134a Tetrafluoroethane**

<table>
<thead>
<tr>
<th>Other health effects</th>
<th>There is no evidence that the product can cause cancer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - inhalation</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity inhalation (LC₅₀ gases ppmV)</td>
<td>567,000.0</td>
</tr>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>ATE inhalation (gases ppmV)</td>
<td>567,000.0</td>
</tr>
</tbody>
</table>

**METHANOL**

| Acute toxicity - oral            |                                                                    |
| Notes (oral LD₅₀)                | Acute Tox. 3 - H301 Toxic if swallowed.                          |
| ATE oral (mg/kg)                 | 100.0                                                            |
| Acute toxicity - dermal          |                                                                  |
| Notes (dermal LD₅₀)              | Acute Tox. 3 - H311 Toxic in contact with skin.                  |
## Alcohol-Enhanced Flux Remover-ProClean, Aerosol

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE dermal (mg/kg)</td>
<td>300.0</td>
</tr>
<tr>
<td>Acute toxicity - inhalation</td>
<td></td>
</tr>
<tr>
<td>Notes (inhalation LC₅₀)</td>
<td>Acute Tox. 3 - H331 Toxic if inhaled.</td>
</tr>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>3.0</td>
</tr>
<tr>
<td>ATE inhalation (dusts/mists mg/l)</td>
<td>0.5</td>
</tr>
</tbody>
</table>

### Skin corrosion/irritation

- Based on available data the classification criteria are not met.

### Animal data

- Based on available data the classification criteria are not met.

### Serious eye damage/irritation

- Based on available data the classification criteria are not met.

### Respiratory sensitization

- Based on available data the classification criteria are not met.

### Skin sensitization

- Based on available data the classification criteria are not met.

### Germ cell mutagenicity

- Based on available data the classification criteria are not met.

### Genotoxicity - in vitro

- Based on available data the classification criteria are not met.

### Carcinogenicity

- Based on available data the classification criteria are not met.

### IARC carcinogenicity

- None of the ingredients are listed or exempt.

### Reproductive toxicity

- Based on available data the classification criteria are not met.

### Specific target organ toxicity - single exposure

- STOT SE 1 - H370 Causes damage to organs.

### Specific target organ toxicity - repeated exposure

- Not classified as a specific target organ toxicant after repeated exposure.

### Aspiration hazard

- Based on available data the classification criteria are not met.

### General information

- The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

### Inhalation

- A single exposure may cause the following adverse effects: Drowsiness, dizziness, disorientation, vertigo. Unconsciousness. High concentrations may be fatal.

### Ingestion

- May cause stomach pain or vomiting. May cause severe internal injury.

### Skin contact

- A single exposure may cause the following adverse effects: Pain.
Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Eye contact No specific symptoms known.
Route of entry Ingestion Inhalation Skin and/or eye contact
Target organs No specific target organs known.

4-Methylpentan-2-one

Carcinogenicity
IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients

METHANOL

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Toxicity Based on available data the classification criteria are not met.

Ecological information on ingredients

PROPAN-2-OL

Acute aquatic toxicity
Acute toxicity - fish LC₅₀, 96 hours: 9,640 mg/l, Fish
Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 5102 mg/l, Daphnia magna
Acute toxicity - aquatic plants IC₅₀, 72 hours: >2,000 mg/l, Algae

ETHANOL

Acute aquatic toxicity
Acute toxicity - fish LC₅₀, 96 hours: >10,000 mg/l, Fish
Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 7,800 mg/l, Daphnia magna
Acute toxicity - aquatic plants , 96 hours: 1000 mg/l, Freshwater algae

HFC-134a Tetrafluoroethane

Acute aquatic toxicity
Acute toxicity - fish LC₅₀, 96 hours: 450 mg/l, Fish
Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 980 mg/l, Daphnia magna

METHANOL

Toxicity Based on available data the classification criteria are not met.
Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Acute aquatic toxicity
Acute toxicity - fish  LC₅₀, 96 hours: >100 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates  EC₅₀, 48 hours: >10000 mg/l, Daphnia magna

Persistence and degradability
The degradability of the product is not known.

Ecological information on ingredients

ETHANOL
Persistence and degradability  The product is expected to be biodegradable.

METHANOL
Persistence and degradability  The degradability of the product is not known.

Bioaccumulative potential
Bioaccumulative potential  No data available on bioaccumulation.
Partition coefficient  No information available.

Ecological information on ingredients

PROPAN-2-OL
Partition coefficient  : 0.05

ETHANOL
Bioaccumulative potential  Bioaccumulation is unlikely.
Partition coefficient  No information available.

HFC-134a Tetrafluoroethane
Partition coefficient  Pow: 1.06

METHANOL
Bioaccumulative potential  No data available on bioaccumulation.
Partition coefficient  : -0.77

Mobility in soil
Mobility  The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Ecological information on ingredients

ETHANOL
Mobility  The product is soluble in water.

METHANOL
Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Mobility

No data available.

Other adverse effects

None known.

Ecological information on ingredients

**METHANOL**

Other adverse effects

None known.

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**SECTION 13: Disposal information**

**Waste treatment methods**

**General information**

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods**

Do not empty into drains. Empty containers must not be punctured or incinerated because of the risk of an explosion. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

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**SECTION 14: Transportation information**

**UN number**

| UN No. (IMDG) | 1950 |
| UN No. (ICAO) | 1950 |

**UN proper shipping name**

**Proper shipping name (Road/Rail)**

LIMITED QUANTITY

**Proper shipping name (IMDG)**

UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

**Proper shipping name (ICAO)**

UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

**Transport hazard class(es)**

**Road/Rail classification code**

F1

**IMDG class**

2.1 LIMITED QUANTITY

**ICAO class/division**

2.1 LIMITED QUANTITY

**Packing group**

**Road/Rail packing group**

N/A

**IMDG packing group**

N/A

**ICAO packing group**

N/A

**Environmental hazards**
Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Environmentally hazardous substance/marine pollutant
No.

Special precautions for user

EmS F-D, S-U

Hazard Identification Number
23

Transport in bulk according to
(Road/Rail) Not applicable.

Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the substance or mixture

Inventories
US - TSCA 12(b) Export Notification
Not listed.

SECTION 16: Other information

Abbreviations and acronyms
used in the safety data sheet

IATA: International air transport association.
ICAO: Technical instructions for the safe transport of dangerous goods by air.
IMDG: International maritime dangerous goods.
CAS: Chemical abstracts service.
ATE: Acute toxicity estimate.
LC₅₀: Lethal concentration to 50% of a test population.
LD₅₀: Lethal dose to 50% of a test population (median lethal dose).
EC₅₀: 50% of maximal effective concentration.
PBT: Persistent, bioaccumulative and toxic substance.
vPvB: Very persistent and very bioaccumulative.

Classification abbreviations and acronyms

Aerosol = Aerosol
Carc. = Carcinogenicity
Eye Irrit. = Eye irritation
Muta. = Germ cell mutagenicity
STOT SE = Specific target organ toxicity-single exposure

Training advice
Only trained personnel should use this material.

Revision comments
NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 25/5/2021
Revision 78
Supersedes date 21/5/2021
SDS number AEROSOL - PRO
Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Hazard statements in full

H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H301 Toxic if swallowed.
H311 Toxic if in contact with skin.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H360 May damage fertility or the unborn child.
H370 Causes damage to organs.