SAFETY DATA SHEET
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

1. Identification

Product identifier

Product name PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

Product number MCC-PROG, MCC-PROGG, MCC-PROL, MCC-PROLG, MCC-PROP, MCC-PROD, MCC-PROGI, MCC-PROJG, MCC-PROPI, MCC-PROLI

Synonyms; trade names PRO - PROCLEAN SOLVENT, BULK

Recommended use of the chemical and restrictions on use

Application Cleaning agent.

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier MICROCARE CORPORATION

Manufacturer MICROCARE CORPORATION
595 John Downey Drive
New Britain, CT  06051
United States of America
CAGE: OATV9
Tel: +1 800 638 0125, +1 860-827-0626
Fax: +1 860-893-1930
technicalsupport@microcare.com

Emergency telephone number

Emergency telephone CHEMTREC 1-800-424-9300 (within the U.S.)
+1 703-741-5970 (from anywhere in the world)

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Flam. Liq. 2 - H225

Health hazards Eye Irrit. 2A - H319 Repr. 1B - H360 STOT SE 1 - H370 STOT SE 3 - H336

Environmental hazards Not Classified

Label elements

Pictogram

Signal word Danger
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

Hazard statements

H225 Highly flammable liquid and vapor.
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 and hot surfaces. No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing vapor/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 If on skin: Wash with plenty of water.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/attention if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with national regulations.

Supplemental label information

Safety data sheet available on request. For use in industrial installations only.

Contains

PROPAN-2-OL, METHANOL

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/Information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>PROPN-2-OL</th>
<th>30-60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 67-63-0</td>
<td></td>
</tr>
</tbody>
</table>

Classification

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

<table>
<thead>
<tr>
<th>ETHANOL</th>
<th>30-60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 64-17-5</td>
<td></td>
</tr>
</tbody>
</table>

Classification

Flam. Liq. 2 - H225
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

<table>
<thead>
<tr>
<th>METHANOL</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 67-56-1</td>
<td></td>
</tr>
</tbody>
</table>

**Classification**
- Flam. Liq. 2 - H225
- Acute Tox. 3 - H301
- Acute Tox. 3 - H311
- Acute Tox. 3 - H331
- Eye Irrit. 2A - H319
- Repr. 1B - H360
- STOT SE 1 - H370

<table>
<thead>
<tr>
<th>ISOBUTYL METHYL KETONE</th>
<th>&lt;1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 108-10-1</td>
<td></td>
</tr>
</tbody>
</table>

**Classification**
- Flam. Liq. 2 - H225
- Acute Tox. 4 - H332
- Eye Irrit. 2A - H319
- STOT SE 3 - H335

<table>
<thead>
<tr>
<th>ETHYL ACETATE</th>
<th>&lt;1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 141-78-6</td>
<td></td>
</tr>
</tbody>
</table>

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

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

**Composition comments**
TSCA: The ingredients of this product are on the TSCA Inventory. The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200

### 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.

**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.
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

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.

Ingestion
A single exposure may cause the following adverse effects: Intoxication. Nausea, vomiting. May cause drowsiness or dizziness. Central nervous system depression. May cause severe internal injury.

Skin contact
A single exposure may cause the following adverse effects: Pain.

Eye contact
Irritating to eyes.

Indication of immediate medical attention and special treatment needed
Notes for the doctor
Treat symptomatically.

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. Flammable liquid and vapour. Vapors may be ignited by a spark, a hot surface or an ember. Vapors may form explosive mixtures with air. Fire-water run-off in sewers may create fire or explosion hazard.

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

Advice for firefighters

Protective actions during firefighting
Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, 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 vapors 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. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

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. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated. Avoid inhalation of vapors and spray/mists. Use suitable respiratory protection if ventilation is inadequate.

Environmental precautions
Avoid discharge into drains or watercourses or onto the ground.

Methods and material for containment and 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. Do not allow material to enter confined spaces, due to the risk of explosion. Absorb small quantities with paper towels and evaporate in a safe place. Once evaporation is complete, place paper in a suitable waste disposal container and seal securely. 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. The contaminated absorbent may pose the same hazard as the spilled material. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. 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.

7. Handling and storage

Precautions for safe handling
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. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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.

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

Conditions for safe storage, including any incompatibilities
Store away from incompatible materials (see Section 10). Keep away from oxidizing 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.

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).

8. Exposure controls/Personal protection

Control parameters
PRO  - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

Occupational exposure limits

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): OSHA 400 ppm 980 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 492 mg/m³
Short-term exposure limit (15-minute): ACGIH 400 ppm 984 mg/m³
A4

ETHANOL

Short-term exposure limit (15-minute): ACGIH 1000 ppm 1880 mg/m³
A3
Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 1900 mg/m³

METHANOL

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 262 mg/m³
Short-term exposure limit (15-minute): ACGIH 250 ppm 328 mg/m³
Sk
Long-term exposure limit (8-hour TWA): OSHA 200 ppm 260 mg/m³

ISOBUTYL METHYL KETONE

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 82 mg/m³
Short-term exposure limit (15-minute): ACGIH 75 ppm 307 mg/m³
A3
Long-term exposure limit (8-hour TWA): OSHA 100 ppm 410 mg/m³

ETHYL ACETATE

Long-term exposure limit (8-hour TWA): ACGIH 400 ppm 1440 mg/m³
Long-term exposure limit (8-hour TWA): OSHA 400 ppm 1400 mg/m³
OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.
Sk = Danger of cutaneous absorption.
A4 = Not Classifiable as a Human Carcinogen.

Additional Occupational Exposure Limits

ETHANOL (CAS: 64-17-5)

Ingredient comments

WEL = Workplace Exposure Limits

METHANOL (CAS: 67-56-1)

Biological limit values

15 mg/l

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.
**PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK**

<table>
<thead>
<tr>
<th>Hand protection</th>
<th>No specific hand protection recommended.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other skin and body protection</td>
<td>Wear appropriate clothing to prevent repeated or prolonged skin contact.</td>
</tr>
<tr>
<td>Hygiene measures</td>
<td>Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.</td>
</tr>
<tr>
<td>Environmental exposure controls</td>
<td>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.</td>
</tr>
</tbody>
</table>

### 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>Clear liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless.</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcoholic.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Melting point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>77°C/170.6°F @ 101.3 kPa</td>
</tr>
<tr>
<td>Flash point</td>
<td>12°C/54°F Tag closed 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>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Lower flammable/explosive limit: 2.0 %(V) Upper flammable/explosive limit: 12.7 %(V)</td>
</tr>
<tr>
<td>Other flammability</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>5.2 kPa @ 20°C</td>
</tr>
<tr>
<td>Vapor density</td>
<td>1.82</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.79</td>
</tr>
<tr>
<td>Bulk density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
**PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK**

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive properties</td>
<td>The product is highly flammable. Vapors may form explosive mixtures with air.</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No information available.</td>
</tr>
<tr>
<td>Particle size</td>
<td>No information available.</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available.</td>
</tr>
<tr>
<td>Volatility</td>
<td>100%</td>
</tr>
<tr>
<td>Saturation concentration</td>
<td>No information available.</td>
</tr>
<tr>
<td>Critical temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Volatile organic compound</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flammability</td>
<td>The product is flammable.</td>
</tr>
</tbody>
</table>

**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: Oxidizing agents. |
| Conditions to avoid           | Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Static electricity and formation of sparks must be prevented. |
| Materials to avoid            | Oxidizing materials. Acids - oxidizing. |
| 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 vapors. |

**11. Toxicological information**

<table>
<thead>
<tr>
<th>Toxicological effect</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - oral</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>Notes (oral LD₅₀)</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>ATE oral (mg/kg)</td>
<td>4,705.88</td>
</tr>
<tr>
<td>Acute toxicity - dermal</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>Notes (dermal LD₅₀)</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>ATE dermal (mg/kg)</td>
<td>14,117.65</td>
</tr>
<tr>
<td>Acute toxicity - inhalation</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>Notes (inhalation LC₅₀)</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>ATE Inhalation (vapours mg/l)</td>
<td>141.18</td>
</tr>
<tr>
<td>ATE Inhalation (dusts/mists mg/l)</td>
<td>23.53</td>
</tr>
<tr>
<td>Skin corrosion/Irritation</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>Animal data</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
</tbody>
</table>
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

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
Germ cell mutagenicity  Based on available data the classification criteria are not met.

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

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

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
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.

Ingestion
A single exposure may cause the following adverse effects: Intoxication. Nausea, vomiting. May cause drowsiness or dizziness. Central nervous system depression. May cause severe internal injury.

Skin Contact
A single exposure may cause the following adverse effects: Pain.

Eye contact
Irritating to eyes.

Acute and chronic health hazards
Keep out of the reach of children.

Route of exposure
Ingestion Inhalation Skin and/or eye contact

Target Organs
Central nervous system

Toxicological information on ingredients.

PROPAN-2-OL
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 16,000.0
ATE inhalation (vapours mg/l) 16,000.0

Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.
NTP carcinogenicity Not listed.
OSHA Carcinogenicity Not listed.

ETHANOL

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 20,000.0
ATE inhalation (vapours mg/l) 20,000.0

Carcinogenicity

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

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.
ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Acute Tox. 3 - H331 Toxic if inhaled.
ATE inhalation (vapours mg/l) 3.0
ATE inhalation (dusts/mists mg/l) 0.5

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitization

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

Skin sensitization
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

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.

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 1 - H370 Causes damage to organs.

Specific target organ toxicity - repeated exposure
STOT - 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.

Eye contact
No specific symptoms known.

Route of exposure
Ingestion Inhalation Skin and/or eye contact

Target Organs
No specific target organs known.

ISOBUTYL METHYL KETONE

Acute toxicity - inhalation
ATE inhalation (vapours mg/l) 11.0
ATE inhalation (dusts/mists mg/l) 1.5

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

12. Ecological information

Ecotoxicity
Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

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.

PROPA-2-OL

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

ETHANOL

Acute aquatic toxicity
- Fish: LC₅₀, 96 hours: >10,000 mg/l, Fish
- Aquatic invertebrates: EC₅₀, 48 hours: 7,800 mg/l, Daphnia magna
- Aquatic plants: LC₅₀, 96 hours: >960 mg/l, Freshwater algae

METHANOL

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

Acute aquatic toxicity
- Fish: LC₅₀, 96 hours: >100 mg/l, Pimephales promelas (Fat-head Minnow)
- 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
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

Bio-Accumulative Potential  No data available on bioaccumulation.
Partition coefficient  No information available.

Ecological information on ingredients.

PROPAN-2-OL

Partition coefficient  : 0.05

ETHANOL

Bio-Accumulative Potential  Bioaccumulation is unlikely.
Partition coefficient  No information available.

METHANOL

Bio-Accumulative Potential  No data available on bioaccumulation.
Partition coefficient  : -0.77

Mobility in soil
Mobility  No data available.

Ecological information on ingredients.

ETHANOL

Mobility  The product is soluble in water.

METHANOL

Mobility  No data available.

Other adverse effects

Other adverse effects  None known.

Ecological information on ingredients.

METHANOL

Other adverse effects  None known.

13. Disposal considerations

Waste treatment methods

General information  The generation of waste should be minimized 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. 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, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.
14. Transport information

<table>
<thead>
<tr>
<th>UN Number</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No. (TDG)</td>
<td></td>
</tr>
<tr>
<td>UN No. (IMDG)</td>
<td></td>
</tr>
<tr>
<td>UN No. (ICAO)</td>
<td></td>
</tr>
<tr>
<td>UN No. (DOT)</td>
<td></td>
</tr>
</tbody>
</table>

**UN proper shipping name**
- Proper shipping name (TDG): Flammable Liquid, N.O.S. Isopropyl alcohol
- Proper shipping name (IMDG): Flammable Liquid, N.O.S. Isopropyl alcohol
- Proper shipping name (ICAO): Flammable Liquid, N.O.S. Isopropyl alcohol
- Proper shipping name (DOT): Flammable Liquid, N.O.S. Isopropyl alcohol

**Transport hazard class(es)**
- DOT hazard class: 3
- DOT hazard label: 3
- TDG class: 3
- TDG label(s): 3
- IMDG Class: 3
- ICAO class/division: 3

**Transport labels**

```
flammable liquid
```

**DOT transport labels**

```
flammable liquid
```

**Packing group**
- TDG Packing Group: II
- IMDG packing group: II
- ICAO packing group: II
- DOT packing group: II

**Environmental hazards**
- Environmentally Hazardous Substance No.

**Special precautions for user**
- EmS: F-E, S-E
Transport in bulk according to Not applicable.
Annex II of MARPOL 73/78
and the IBC Code

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
The following ingredients are listed or exempt:

- **ISOBUTYL METHYL KETONE**
  Final CERCLA RQ: 5000(2270) pounds (Kilograms)

- **ETHYL ACETATE**
  Final CERCLA RQ: 5000(2270) pounds (Kilograms)

- **METHANOL**
  Final CERCLA RQ: 5000(2270) pounds (Kilograms)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
The following ingredients are listed or exempt:

- **ISOBUTYL METHYL KETONE**
  1.0 %

- **METHANOL**
  1.0 %

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

FDA - Essential Chemical
None of the ingredients are listed or exempt.

FDA - Precursor Chemical
None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories
None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals
None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins
The following ingredients are listed or exempt:

- **ISOBUTYL METHYL KETONE**
  Carcinogen and developmental toxin.

- **METHANOL**
  Developmental toxin.
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

**California Air Toxics "Hot Spots" (A-I)**
The following ingredients are listed or exempt:
- ISOBUTYL METHYL KETONE
- METHANOL
- PROPA2-OL

**California Air Toxics "Hot Spots" (A-II)**
None of the ingredients are listed or exempt.

**California Directors List of Hazardous Substances**
All the ingredients are listed or exempt.
- ISOBUTYL METHYL KETONE
  Present.
- METHANOL
  Present.
- ETHANOL
  Present.
- PROPA2-OL
  Present.

**Massachusetts "Right To Know" List**
All the ingredients are listed or exempt.
- ISOBUTYL METHYL KETONE
  Present.
- METHANOL
  Present.
- ETHANOL
  Present.
- PROPA2-OL
  Present.

**Rhode Island "Right To Know" List**
All the ingredients are listed or exempt.
- ISOBUTYL METHYL KETONE
  Present.
- METHANOL
  Present.
- ETHANOL
  Present.
- PROPA2-OL
  Present.

**Minnesota "Right To Know" List**
All the ingredients are listed or exempt.
- ISOBUTYL METHYL KETONE
  Present.
- METHANOL
  Present.
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

ETHANOL
Present.
PROPAN-2-OL
Present.

New Jersey "Right To Know" List
All the ingredients are listed or exempt.
ISOBUTYL METHYL KETONE
Present.
METHANOL
Present.
ETHANOL
Present.
PROPAN-2-OL
Present.

Pennsylvania "Right To Know" List
All the ingredients are listed or exempt.
ISOBUTYL METHYL KETONE
Present.
METHANOL
Present.
ETHANOL
Present.
PROPAN-2-OL
Present.

Inventories
Canada - DSL/NDSL
DSL

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
None of the ingredients are listed or exempt.

16. Other information

<table>
<thead>
<tr>
<th>Classification abbreviations and acronyms</th>
<th>Flam. Liq. = Flammable liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eye Irrit. = Eye irritation</td>
</tr>
<tr>
<td></td>
<td>STOT SE = Specific target organ toxicity-single exposure</td>
</tr>
</tbody>
</table>

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
9/20/2018

Revision
42

Supersedes date
9/11/2018

SDS No.
BULK - PRO
PRO - ALCOHOL ENHANCED FLUX REMOVER-PROCLEAN, BULK

SDS status
Approved.

Hazard statements in full
H225 Highly flammable liquid and vapor.
H301 Toxic if swallowed.
H311 Toxic 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.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.