

#### SAFETY DATA SHEET

## Alcohol-Enhanced Flux Remover-ProClean, Aerosol

According to the Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013, as amended.

#### 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.

#### 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

PROPAN-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**

PROPAN-2-OL	30-60%
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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

## HFC-134a Tetrafluoroethane 10-30%

CAS number: 811-97-2

Classification

Press. Gas, Liquefied - H280

METHANOL 1-5%

CAS number: 67-56-1

Classification

Flam. Liq. 2 - H225

Acute Tox. 3 - H301

Acute Tox. 3 - H311

Acute Tox. 3 - H331

Eye Irrit. 2 - H319 Repr. 1B - H360

STOT SE 1 - H370

4-Methylpentan-2-one <1%

CAS number: 108-10-1

Classification

Flam. Liq. 2 - H225

Acute Tox. 4 - H332

Eye Irrit. 2 - H319

STOT SE 3 - H335

Ethyl acetate <1%

CAS number: 141-78-6

Classification

Flam. Liq. 2 - H225

Eye Irrit. 2 - H319

STOT SE 3 - H336

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

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**

#### **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

#### 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.

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

Storage precautions 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 class Chemical storage.

Specific end use(s)

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/m<sup>3</sup>

#### **ETHANOL**

Eight-hour time-weighted average: PEL 1000 ppm 1880 mg/m<sup>3</sup>

#### **METHANOL**

Eight-hour time-weighted average: PEL 200 ppm 262 mg/m<sup>3</sup>

skin

#### 4-Methylpentan-2-one

Eight-hour time-weighted average: PEL 50 ppm 205 mg/m<sup>3</sup>

#### 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 membrances and eye, either by air-boRefers 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

Appearance Liquid.

Colour Clear liquid. Colourless.

Odour Alcoholic.

Odour threshold No information available.

**pH** No information available.

Melting point No information available.

Initial boiling point and range  $~77.6^{\circ}\text{C}/172^{\circ}\text{F}$  @ 101.3 kPa

Flash point 17°C/62.6°F Tag open cup.

**Evaporation rate** No information available.

**Evaporation factor** No information available.

Flammability (solid, gas) No information available.

Upper/lower flammability or

explosive limits

Upper flammable/explosive limit: 12.7 %(V) Lower flammable/explosive limit: 2.0 %(V)

Other flammability No information available.

Vapour pressure 5.2 kPa @ 20°C

Vapour density 1.82
Relative density 0.79

Bulk density No information available.

Solubility(ies) Completely soluble in water.

## Alcohol-Enhanced Flux Remover-ProClean, Aerosol

Partition coefficient

No information available.

Auto-ignition temperature

No information available.

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.

Volatility 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 LD<sub>50</sub>) 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 LD<sub>50</sub>) Based on available data the classification criteria are not met.

**ATE dermal (mg/kg)** 18,823.53

Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) Based on available data the classification criteria are not met.

ATE inhalation (vapours mg/l) 188.24

ATE inhalation (dusts/mists

31.37

mg/l)

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 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 -

Based on available data the classification criteria are not met.

development

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 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** A single exposure may cause the following adverse effects: Pain or irritation. Intoxication.

Narcotic effect. Muscle weakness. Nausea, vomiting.

**Ingestion** Due to the physical nature of this product, it is unlikely that ingestion will occur.

## Alcohol-Enhanced Flux Remover-ProClean, Aerosol

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

**Eye contact** Irritating to eyes.

Route of entry Ingestion Inhalation Skin and/or eye contact

Target organs Central nervous system

Toxicological information on ingredients

PROPAN-2-OL

Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

NTP 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

HFC-134a Tetrafluoroethane

Other health effects There is no evidence that the product can cause cancer.

Acute toxicity - inhalation

Acute toxicity inhalation

(LC<sub>50</sub> gases ppmV)

567,000.0

**Species** Rat

ATE inhalation (gases

ppmV)

567,000.0

**Inhalation** Vapours irritate the respiratory system. May cause coughing and difficulties in

breathing.

**Ingestion** May cause stomach pain or vomiting. May cause nausea, headache, dizziness and

intoxication.

**Skin contact** May cause allergic contact eczema. Contact with liquid form may cause frostbite.

**Eye contact** May cause temporary eye irritation.

**METHANOL** 

Acute toxicity - oral

Notes (oral LD<sub>50</sub>) Acute Tox. 3 - H301 Toxic if swallowed.

ATE oral (mg/kg) 100.0

Acute toxicity - dermal

Notes (dermal LD₅o) Acute Tox. 3 - H311 Toxic in contact with skin.

## Alcohol-Enhanced Flux Remover-ProClean, Aerosol

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) 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

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

Germ cell mutagenicity

**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** None of the ingredients are listed or exempt.

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 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

**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

EC<sub>50</sub>, 48 hours: 5102 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

IC<sub>50</sub>, 72 hours: >2,000 mg/l, Algae

#### **ETHANOL**

Acute aquatic toxicity

Acute toxicity - fish LC<sub>50</sub>, 96 hours: >10,000 mg/l, Fish

Acute toxicity - aquatic

invertebrates

EC<sub>50</sub>, 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

EC<sub>50</sub>, 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

EC<sub>50</sub>, 48 hours: >10000 mg/l, Daphnia magna

Persistence and degradability

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

Other adverse effects None known.

**Ecological information on ingredients** 

#### **METHANOL**

Other adverse effects None known.

#### 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.

## SECTION 14: Transportation information

**UN number** 

UN No. (ICAO)

**UN No. (IMDG)** 1950

UN proper shipping name

Proper shipping name

(Road/Rail)

LIMITED QUANTITY

1950

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

(Road/Rail)

Transport in bulk according to 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.

LC₅o: Lethal concentration to 50 % of a test population.

LD₅o: Lethal dose to 50% of a test population (median lethal dose).

EC₅o: 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

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.

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