



SAFETY DATA SHEET

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name PRO 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 chemical and restrictions on use

Application Cleaning agent.

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: +1 860-827-8105
techsupport@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. Aerosol 1 - H222

Health hazards Eye Irrit. 2A - H319 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

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

Pictogram



Signal word

Danger

Hazard statements

H222 Extremely flammable aerosol.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, sparks, open flames and 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.
 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.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 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

Other hazards

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

3. Composition/information on ingredients

Mixtures

PROPAN-2-OL CAS number: 67-63-0	30-60%
Classification Flam. Liq. 2 - H225 Eye Irrit. 2A - H319 STOT SE 3 - H336	
ETHANOL CAS number: 64-17-5	30-60%
Classification Flam. Liq. 2 - H225	
HFC-134a Tetrafluoroethane CAS number: 811-97-2	10-30%
Classification Press. Gas, Liquefied - H280	

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

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 TSCA: The ingredients of this product are on the TSCA Inventory.

Composition

4. First-aid measures

Description of first aid measures

General information Promptly remove any clothing that becomes wet or contaminated. Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Inhalation Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep affected person warm and at rest. Get medical attention immediately.

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Consult a physician for specific advice.

Skin Contact Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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 Vapors may cause headache, fatigue, dizziness and nausea.

Ingestion May cause stomach pain or vomiting. Headache.

Skin contact Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Eye contact Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. Irritation and redness, followed by blurred vision.

Indication of immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations. If in doubt, get medical attention promptly.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with the following media: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

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. Containers can burst violently or explode when heated, due to excessive pressure build-up. Oxides of carbon. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³.

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Advice for firefighters

Protective actions during firefighting Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapors. Bursting aerosol containers may be propelled from a fire at high speed.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. If leakage cannot be stopped, evacuate area. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers.

7. Handling and storage

Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level.

Conditions for safe storage, including any incompatibilities

Storage precautions Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

Specific end uses(s)

Specific end use(s) Cleaning agent.

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

8. Exposure Controls/personal protection

Control parameters

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

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

HFC-134a Tetrafluoroethane

Long-term exposure limit (8-hour TWA): OES 4240 mg/m³

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

A4 = Not Classifiable as a Human Carcinogen.

Additional Occupational Exposure Limits

Ingredient comments WEL = Workplace Exposure Limits

ETHANOL (CAS: 64-17-5)

Ingredient comments WEL = Workplace Exposure Limits

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber).

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

Hygiene measures

Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Respiratory protection

No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Clear liquid. Colorless.
Odor	Alcoholic.
Odor threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	77.6°C/172°F @ 101.3 kPa
Flash point	17°C/62.6°F Tag open cup.

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

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.
Vapor pressure	5.2 kPa @ 20°C
Vapor density	1.82
Relative density	0.79
Bulk density	No information available.
Solubility(ies)	Completely soluble in water.
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.
Oxidizing properties	There are no chemical groups present in the product that are associated with oxidizing properties.
Comments	Aerosol.
Refractive index	No information available.
Particle size	No information available.
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.
Flammability	Flammable aerosol.

10. Stability and reactivity

Stability	Stable at normal ambient temperatures.
Possibility of hazardous reactions	Will not polymerize.
Conditions to avoid	Avoid heat, flames and other sources of ignition.
Materials to avoid	Strong oxidizing agents. Strong alkalis. Strong mineral acids.
Hazardous decomposition products	Fire creates: Vapors/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO ₂). Hydrogen fluoride (HF).

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

11. Toxicological information

Information on toxicological effects

Other health effects	There is no evidence that the product can cause cancer.
Inhalation	May cause respiratory system irritation. Vapors may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.
Skin Contact	Product has a defatting effect on skin. May cause skin irritation/eczema.
Eye contact	Irritating to eyes.

Toxicological information on ingredients.

PROPAN-2-OL

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.
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HFC-134a Tetrafluoroethane

Other health effects	There is no evidence that the product can cause cancer.
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Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ gases ppmV)	567,000.0
Species	Rat
ATE inhalation (gases ppm)	567,000.0

Inhalation	Vapors irritate the respiratory system. May cause coughing and difficulties in breathing.
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PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

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.

12. Ecological Information

Ecological information on ingredients.

PROPAN-2-OL

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 9,640 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 5102 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: >2,000 mg/l, Algae

ETHANOL

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: >10,000 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 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	LC ₅₀ , 96 hours: 450 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 980 mg/l, Daphnia magna

Persistence and degradability

Ecological information on ingredients.

ETHANOL

Persistence and degradability	The product is expected to be biodegradable.
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Bioaccumulative potential

Partition coefficient	No information available.
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Ecological information on ingredients.

PROPAN-2-OL

Partition coefficient	: 0.05
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ETHANOL

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL**Bio-Accumulative Potential** Bioaccumulation is unlikely.**Partition coefficient** No information available.**HFC-134a Tetrafluoroethane****Partition coefficient** Pow: 1.06**Mobility in soil****Mobility** Not considered to be a significant hazard due to the small quantities used.**Ecological information on ingredients.****ETHANOL****Mobility** The product is soluble in water.**13. Disposal considerations****Waste treatment methods****General information** Reuse or recycle products wherever possible.**Disposal methods** Empty containers must not be punctured or incinerated because of the risk of an explosion. Reuse or recycle products wherever possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.**14. Transport information****UN Number****UN No. (IMDG)** 1950**UN No. (ICAO)** 1950**UN proper shipping name****Proper shipping name (TDG)** LIMITED QUANTITY**Proper shipping name (IMDG)** UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY**Proper shipping name (ICAO)** UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY**Proper shipping name (DOT)** LIMITED QUANTITY**Transport hazard class(es)****IMDG Class** 2.1 LIMITED QUANTITY**ICAO class/division** 2.1 LIMITED QUANTITY**Packing group****TDG Packing Group** N/A**IMDG packing group** N/A**ICAO packing group** N/A**DOT packing group** N/A**Environmental hazards****Environmentally Hazardous Substance**

No.

Special precautions for user

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

EmS

F-D, S-U

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information**US Federal Regulations**

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
Not listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
Not listed.

CAA Accidental Release Prevention
Not listed.

SARA (311/312) Hazard Categories
Acute
Chronic
Fire
Pressure

OSHA Highly Hazardous Chemicals
Not listed.

US State Regulations

California Air Toxics "Hot Spots" (A-I)
PROPAN-2-OL
Present.

California Air Toxics "Hot Spots" (A-II)
Not listed.

California Directors List of Hazardous Substances
PROPAN-2-OL
Present.

Massachusetts "Right To Know" List
PROPAN-2-OL
Present.

ETHANOL
Present.

Rhode Island "Right To Know" List
PROPAN-2-OL
Present.

ETHANOL
Present.

Minnesota "Right To Know" List

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

PROPAN-2-OL

Present.

HFC-134a Tetrafluoroethane

Present.

ETHANOL

Present.

New Jersey "Right To Know" List

PROPAN-2-OL

Present.

ETHANOL

Present.

Pennsylvania "Right To Know" List

PROPAN-2-OL

Present.

ETHANOL

Present.

Inventories

Canada - DSL/NDSL

Yes

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

Not listed.

Australia - AICS

PROPAN-2-OL

Yes

Japan - MITI

PROPAN-2-OL

China - IECSC

PROPAN-2-OL

Philippines - PICCS

PROPAN-2-OL

Yes

16. Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	4/30/2018
Revision	56
Supersedes date	3/28/2018

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

SDS No.	AEROSOL - PRO
Hazard statements in full	H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapor. H280 Contains gas under pressure; may explode if heated. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

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.