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Revision 7
Supersedes Date 07/31/2013



SAFETY DATA SHEET

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL

1. IDENTIFICATION

Product Name PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL
Product No. #MCC-PRO, #MCC-PRO101, #MCC-PRO125, #MCC-PRO12Y
Synonyms, Trade Names "PRO-ProClean Flux Remover"
Identification No. UN1950
Identified uses Cleaning agent.
Supplier MicroCare Corporation
595 John Downey Drive
New Britain, CT 06019
United States of America
Toll Free: 1-800-638-0125
Tel: 1-860-827-0626
Web: www.MicroCare.com
email: techsupport@microcare.com
Contact Person techsupport@microcare.com
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Emergency Telephone CHEMTREC (800) 424-9300

2. HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW

FLAMMABLE. Aerosol containers can explode when heated, due to excessive pressure build-up. Cool aerosol containers exposed to heat with water spray and remove container, if no risk is involved. Vapors are heavier than air and may travel along the floor and in the bottom of containers.

Appearance Liquid
Color Clear Colourless.
Odor Odor of alcohol.
GHS Pictogram



Signal Word Danger

Hazard Statements

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

Precautionary Statements

P102	Keep out of reach of children.
P251	Pressurized container: Do not pierce or burn, even after use.
P261	Avoid breathing vapour/spray.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P313	Get medical advice/attention.

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P410+412

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

P501

Dispose of contents/container in accordance with local regulations.

GHS Classification

Physical and Chemical Hazards	Flam. Aerosol 1 - H222
Human health	Eye Irrit. 2 - H319; STOT SE 3 - H336
Environment	Not classified.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS

WHMIS Label



Compressed Gas.



Flammable Gas.



Materials Causing Other
Toxic Effects.

Controlled Product Classification

Canadian WHMIS Classification A B5 D2A D2B WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR SECTION (33)) This product has been classified according to the hazard criteria of the Controlled Product Regulations, and the MSDS contains all required information.

OSHA Regulatory Status

This Product is Hazardous under the OSHA Hazard Communication Standard.

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.

Inhalation

May cause irritation to the respiratory system. 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.

Other Health Effects

This substance has no evidence of carcinogenic properties.

Physical And Chemical Hazards

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

ETHANOL

30-60%

CAS No.: 64-17-5

EC No.: 200-578-6

GHS Classification
Flam. Liq. 2 - H225

HFC-134a Tetrafluoroethane

10-30%

CAS No.: 811-97-2

EC No.: 212-377-0

GHS Classification
Not classified.

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METHANOL		1-5%
CAS No.: 67-56-1	EC No.: 200-659-6	
GHS Classification Flam. Liq. 2 - H225; Acute Tox. 3 - H301; Acute Tox. 3 - H311; Acute Tox. 3 - H331; STOT SE 1 - H370		
PROPAN-2-OL		30-60%
CAS No.: 67-63-0	EC No.: 200-661-7	
GHS Classification Flam. Liq. 2 - H225; Eye Irrit. 2 - H319; STOT SE 3 - H336		

4. FIRST-AID MEASURES

Description of first aid measures

General Information

Promptly remove any clothing that becomes wet. Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Inhalation

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

Ingestion

DO NOT INDUCE VOMITING! Immediately rinse mouth and drink plenty of water (200-300 ml). Do not give victim anything to drink if he is unconscious. Consult a physician for specific advice.

Skin Contact

Promptly wash contaminated skin with water. Promptly remove clothing if soaked through and wash the skin with water. Contact physician if irritation continues.

Eye Contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. 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 dependant of 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 redness, itching, irritation and eczema/chapping.

Eye Contact

Irritating and may cause redness and pain. Irritation and redness followed by blurred vision.

Indication of any immediate medical attention and special treatment needed

Notes To The Physician

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

5. FIRE-FIGHTING MEASURES

Flammability Limit - Lower(%)	2.0
Flammability Limit - Upper(%)	12.7
Flash point (°C)	17 TOC (Tag open cup).

PRO ALCOHOL-ENHANCED FLUX REMOVER - PROCLEAN, AEROSOL**Extinguishing Media**

Use: 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.

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. During fire, toxic gases (CO, CO₂) are formed.

Unusual Fire & Explosion Hazards

Aerosol cans may explode in a fire. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Specific Hazards

Aerosol containers can explode when heated, due to excessive pressure build-up.

Special Fire Fighting Procedures

Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapors.

Protective Equipment For Fire-Fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Wear approved, tight fitting safety glasses where splashing is probable.

Environmental Precautions

Do not discharge into drains, water courses or onto the ground.

Spill Clean Up Methods

Wear necessary protective equipment. If leakage cannot be stopped, evacuate area. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers.

7. HANDLING AND STORAGE**Handling**

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Keep out of the reach of children.

Storage

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

Specific end use(s)

Cleaning agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	STD	TWA (8-hrs)		STEL (15 min)		Notes
ETHANOL	ACGIH			1000 ppm		A3
ETHANOL	PEL	1000 ppm	1900 mg/m ³			
METHANOL	ACGIH	200 ppm		250 ppm		Skin
METHANOL	PEL	200 ppm	260 mg/m ³			
PROPAN-2-OL	ACGIH	200 ppm		400 ppm		A4
PROPAN-2-OL	PEL	400 ppm	980 mg/m ³			
COMPONENT						IDLH
ETHANOL						3300 ppm
METHANOL						6000 ppm
PROPAN-2-OL						2000 ppm

ACGIH=American Conference of Governmental Industrial Hygienists.

Skin: Danger of cutaneous absorption. (ACGIH)

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans.

A4: Not Classifiable as a Human Carcinogen.

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Ingredient Comments

WEL = Workplace Exposure Limits

Protective Equipment



Engineering Measures

Provide adequate general and local exhaust ventilation.

Respiratory Equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Occupational Exposure Limit

Hand Protection

For prolonged or repeated skin contact use suitable protective gloves. Gloves of nitrile rubber, PVA or Viton are recommended.

Eye Protection

Use eye protection. Wear approved, tight fitting safety glasses where splashing is probable.

Other 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 hands 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Color	Clear Colourless.
Odor	Odor of alcohol.
Solubility	Completely soluble in water
Initial boiling point and boiling range	77.6
Vapor density (air=1)	1.82
Vapor pressure	39 mm Hg 20
Flash point	17 TOC (Tag open cup).
Flammability Limit - Lower(%)	2.0
Flammability Limit - Upper(%)	12.7
Physical Data Comments	Aerosol.
Volatility Description	Volatile
Volatile By Vol. (%)	100
Volatile Organic Compound (VOC)	785 g/litre

10. STABILITY AND REACTIVITY

Stability

Stable under normal temperature conditions.

Hazardous Polymerisation

Will not polymerise.

Conditions To Avoid

Avoid heat, flames and other sources of ignition. Avoid contact with: Strong oxidizing agents. Strong alkalis. Strong mineral acids.

Materials To Avoid

Strong oxidizing substances.

Hazardous Decomposition Products

Fire creates: Vapors/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen fluoride (HF).

11. TOXICOLOGICAL INFORMATION

Other Health Effects

This substance has no evidence of carcinogenic properties.

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Toxicological Information on Ingredients:

METHANOL (CAS: 67-56-1)

Toxic Dose 1 - LD 50

13000 mg/kg (oral rat)

ETHANOL (CAS: 64-17-5)

Toxic Dose 1 - LD 50

7, 060 mg/kg (oral rat)

Toxic Conc. - LC 50

20000 mg/l/4h (inh-rat)

PROPAN-2-OL (CAS: 67-63-0)

Toxic Dose 1 - LD 50

5045 mg/kg (oral rat)

Toxic Dose 2 - LD 50

3600 mg/kg (oral-mouse)

Toxic Conc. - LC 50

16, 000 ppm/1h (inh-rat)

HFC-134a Tetrafluoroethane (CAS: 811-97-2)

Toxic Dose 1 - LD 50

>2085 mg/kg (oral rat)

Other Health Effects

This substance has no evidence of carcinogenic properties.

12. ECOLOGICAL INFORMATION

Mobility:

Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered small.

Ecological Information on Ingredients:

METHANOL (CAS: 67-56-1)

LC 50, 96 Hrs, Fish mg/l

1368

ETHANOL (CAS: 64-17-5)

LC 50, 96 Hrs, Fish mg/l

>10, 000

EC 50, 48 Hrs, Daphnia, mg/l

7, 800

PROPAN-2-OL (CAS: 67-63-0)

LC 50, 96 Hrs, Fish mg/l

9, 640

EC 50, 48 Hrs, Daphnia, mg/l

5102

IC 50, 72 Hrs, Algae, mg/l

>2, 000

HFC-134a Tetrafluoroethane (CAS: 811-97-2)

LC 50, 96 Hrs, Fish mg/l

450

EC 50, 48 Hrs, Daphnia, mg/l

980

13. DISPOSAL CONSIDERATIONS

Waste Management

Recover and reclaim or recycle, if practical.

Disposal Methods

Empty containers must not be burned because of explosion hazard. Recover and reclaim or recycle, if practical. Dispose of waste and residues in accordance with local authority requirements.

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14. TRANSPORT INFORMATION

UN No. (DOT/TDG)	UN1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950
DOT Proper Shipping Name	Limited Quantities
DOT Proper Shipping Name	AEROSOLS
TDG Proper Shipping Name	AEROSOLS
IMDG Class	2.1
ICAO Class	2.1
ICAO Subsidiary Risk	N/A
Transport Labels	



IMDG Pack Group	N/A
Air Pack Group	N/A
EMS	F-D, S-U

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

15. REGULATORY INFORMATION

Regulatory Status (US)

TSCA: The ingredients of this product are on the TSCA Inventory. This Product is Hazardous under the OSHA Hazard Communication Standard.

Regulatory References

NFPA30 Flammable and Combustible Liquids Code. 29 CFR 1910.1010 Federal Regulations (OSHA Standard).

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed.

METHANOL; 5, 000 lbs (2270 Kg)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

The following ingredients are listed.

METHANOL 2%

CAA Accidental Release Prevention

None of the ingredients are listed.

SARA (311/312) Hazard Categories

Acute Chronic Fire

OSHA Highly Hazardous Chemicals

None of the ingredients are listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

The following ingredients are listed.

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METHANOL; Known to the State of California to cause developmental and reproductive toxicity.

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed.

METHANOL

PROPAN-2-OL

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed.

Massachusetts "Right To Know" List

The following ingredients are listed.

ETHANOL

METHANOL

PROPAN-2-OL

Rhode Island "Right To Know" List

The following ingredients are listed.

ETHANOL

METHANOL

PROPAN-2-OL

Minnesota "Right To Know" List

All ingredients are listed.

New Jersey "Right To Know" List

The following ingredients are listed.

ETHANOL

METHANOL

PROPAN-2-OL

Pennsylvania "Right To Know" List

The following ingredients are listed.

ETHANOL

METHANOL

PROPAN-2-OL

International Inventories

Canada – DSL/NDSL

All ingredients are listed or exempt.

US - TSCA

All ingredients are listed or exempt.

US – TSCA 12(b) Export Notification

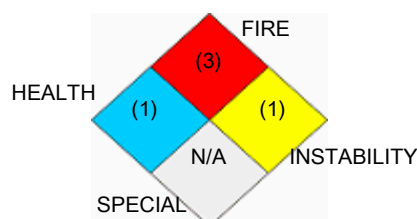
None of the ingredients are listed.

16. OTHER INFORMATION

HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

HEALTH		1
FLAMMABILITY		3
PHYSICAL		1
PERSONAL PROTECTION		B

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



Revision Comments

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

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Revision	7
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Date	06 May 2013

Disclaimer

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.