



MATERIAL SAFETY DATA SHEET PRO PROCLEAN FLUX REMOVER, AEROSOL

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME PRO PROCLEAN FLUX REMOVER, AEROSOL
PRODUCT NO. #MCC-PRO, #MCC-PRO101, #MCC-PRO125
PRODUCT USE Cleaning agent.
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IDENTIFICATION No. UN1950

2 HAZARDS 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.

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.

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.

POTENTIAL HEALTH EFFECTS

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.

CARCINOGENICITY

This substance has no evidence of carcinogenic properties.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %
ETHANOL	200-578-6	64-17-5	30-60%
HFC-134a Tetrafluoroethane	212-377-0	811-97-2	10-30%
METHANOL	200-659-6	67-56-1	1-5%
PROPAN-2-OL	200-661-7	67-63-0	30-60%

COMPOSITION COMMENTS

The Data Shown is in accordance with the latest EC Directives.

4 FIRST-AID MEASURES

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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.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

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.

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.

PROTECTIVE MEASURES IN FIRE

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

FLAMMABILITY LIMIT - LOWER(%) 2.0

FLAMMABILITY LIMIT - UPPER(%) 12.7

FLASH POINT (°C) 17 TOC (Tag open cup).

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.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT

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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 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.
PHYSICAL DATA COMMENTS	Aerosol.
VOLATILITY DESCRIPTION	Volatile
SOLUBILITY	Completely soluble in water
BOILING POINT (°C)	77.6
VAPOR DENSITY (air=1)	1.82
VAPOR PRESSURE	39 mm Hg 20
VOLATILE BY VOL. (%)	100
FLASH POINT (°C)	17 TOC (Tag open cup).
VOLATILE ORGANIC CONTENT	785 g/litre

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

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

HAZARDOUS POLYMERISATION

Will not polymerise.

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

Name	METHANOL
Toxic Dose 1 - LD 50	13000 mg/kg (oral rat)
Name	ETHANOL
Toxic Dose 1 - LD 50	7,060 mg/kg (oral rat)
Toxic Conc. - LC 50	20000 mg/l/4h (inh-rat)

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Name	PROPAN-2-OL
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)
Name	HFC-134a Tetrafluoroethane
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.

Name	METHANOL
LC 50, 96 Hrs, Fish mg/l	1368
Name	ETHANOL
LC 50, 96 Hrs, Fish mg/l	>10,000
EC 50, 48 Hrs, Daphnia, mg/l	7,800
Name	PROPAN-2-OL
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
Name	HFC-134a Tetrafluoroethane
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.

14 TRANSPORT INFORMATION



DOT PROPER SHIPPING NAME	AEROSOLS
DOT PROPER SHIPPING NAME	Consumer Commodity ORM-D
TDG SHIPPING NAME	AEROSOLS
IDENTIFICATION No.	UN1950
UN NO. SEA	1950
IMDG CLASS	2.1
IMDG PAGE NO.	94
IMDG PACK GR.	N/A
EMS	F-D, S-U
MFAG	See Subsection 4.2 of MFAG.
UN NO. AIR	1950
AIR CLASS	2.1
AIR SUB CLASS	N/A

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AIR PACK GR.

N/A

15 REGULATORY INFORMATION

INVENTORIES

COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
METHANOL	DSL	Yes.						
ETHANOL	DSL	Yes.						
PROPAN-2-OL	DSL	Yes.						
HFC-134a Tetrafluoroethane	DSL	Yes.						

COMPONENT	TSCA 12(b) Export Notification
HFC-134a Tetrafluoroethane	No.

SARA (311/312) HAZARD CATEGORIES

Acute Chronic Fire

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).

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS

LABEL(S) FOR SUPPLY



Compressed Gas.



Flammable Gas.



Materials Causing Other Toxic Effects.

CONTROLLED PRODUCT CLASSIFICATION

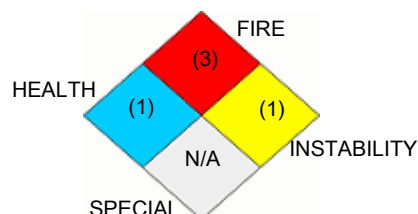
Canadian WHMIS Classification A B5 D2A D2B WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR SECTION (33)) This product has been classified according to the hazard criteria of the Controlled Product Regulations, and the MSDS contains all required information.

16 OTHER INFORMATION

HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

HEALTH		1
FLAMMABILITY		3
PHYSICAL		1
PERSONAL PROTECTION		B

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



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REVISION COMMENTS

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

REVISION DATE	27/08/2009
VERSION No.	2
DATE	May 21, 2009

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 o