



MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Product Name: ProClean Flux Remover; MCC-PRO; #MCC-PROW; #MCC-PROG; #MCC-PROP; #MCC-PROD

Chemical Family: Blended proprietary denatured alcohol and isopropanol. In the aerosol form, tetrafluoroethane is used as a propellant.

Packaged By: MicroCare Corp., 595 John Downey Drive, New Britain, CT, 06051, USA CAGE/FSCM: OATV9

Emergency Telephone: CHEMTREC (800) 424-9300

2. Composition/Information on Ingredients

Chemical Name	Wt.%Range	TLV Units
Tetrafluoroethane (aerosol only) CAS #811-97-2	0-20.0	1000 ppm
Isopropyl Alcohol CAS # 67-63-0	43.00-53.00	400 ppm
Ethyl Alcohol CAS # 64-17-5	43.00-53.00	1,000 ppm
Methanol CAS #67-56-1	1.50-3.00	200 ppm

All components of this material are listed on the TSCA inventory.

3. Hazard Identification

Emergency Overview: Flammable Liquid. Colorless liquid with an alcohol odor. Liquid will irritate eyes and skin under repeated or prolonged exposure. Product vapors can be moved by air currents and ignited by pilot lights, other flames, sparks, heaters, electrical equipment, static discharges or other ignition sources distant from product handling point. Keep away from children.

Potential Health Effects

Eyes: Vapor contact: Mild irritant. Liquid contact: Will irritate eyes with possible corneal injury. Persons wearing contact lenses should wear chemical protective safety glasses when exposed to this product.

Skin: For repeated contact: dry/chapped skin, risk of chronic dermatitis.

Ingestion: Can cause depression of central nervous system, nausea, stomach cramps, vomiting, diarrhea. Individual responses to methanol vary. Ingestion of less than 30 ml (0.34g/kg) of methanol has been fatal to humans. In general, a few ounces of methanol may cause blindness and death; as little as 4 ml. may be toxic if ingested.

Inhalation: At low concentration levels: may cause mild irritation to nose and throat. At high levels: headache, drowsiness and lassitude, loss of appetite, inability to concentrate.

Medical Conditions Aggravated by Exposure: Preexisting disease of the heart, lungs, skin and eyes.

4. First Aid Measures

Eyes: Immediately flush with water. Remove any contact lenses and continue flushing for 15 minutes, lifting eyelids occasionally until no evidence of the chemical remains. If irritation develops or persists call a physician.

Skin: Wash promptly with soap and water. Remove and wash contaminated clothing and shoes before reuse.

Ingestion: If conscious, immediately give 2-4 glasses of water and induce vomiting by touching finger to back of throat. Do not give stimulants. Never give anything by mouth to an unconscious person. Call a physician.

Inhalation: Remove to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do not give Epinephrine. Call a physician.

Note to Attending Physician: There is no specific antidote to overexposure. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Immediate medical attention for acute overexposure is required.

5. Firefighting Measures

Flash Point: 53½F/12½C, Tag Closed Cup, ASTM-D-56.

63½F/17½C, Tag Open Cup, ASTM-D-1310.

Flammable Limits in Air: LEL/UEL: 2.0-12.7 (% by volume)

Extinguishing Media: Use dry chemical, "alcohol" foam, CO2; water may be ineffective, but water should be used to keep fire exposed containers cool. If a spill or leak has not ignited, use water spray to disperse vapors and protect persons attempting to stop leak. Water may be used to flush spills away from exposures and to dilute spills to nonflammable mixtures.

Special Firefighting Procedures: Evacuate personnel. Wear self contained breathing apparatus (SCBA) and full protective equipment. Keep containers cool. Containers build pressure under fire conditions causing violent bursting and dangerous propelling of container. This is especially true for aerosol containers which are packaged under pressure.

6. Accidental Release Measures

Spill or Leak: Evacuate area, absorb spilled liquid with commercial, nonflammable absorbent i.e. sand, vermiculite. Remove unprotected personnel. Protected personnel should remove ignition sources and shut off fire sources. Provide ventilation. Shovel (spark proof) absorbent material into drums and close. Do not flush to sewer.

7. Handling and Storage

Avoid breathing vapors or mist. Use only with adequate ventilation. Avoid repeated or prolonged contact with eyes, skin or clothing. Wash thoroughly after handling. Do not store in direct sunlight. Store in cool dry place, away from heat, sparks or flames which may generate toxic decomposition products. Vapors are heavy and may concentrate in low poorly ventilated areas.

8. Exposure Controls/Personal Protection

Respiratory Protection: Use only with adequate ventilation. Keep container tightly closed. Use approved NIOSH self-contained or supplied air respirators for emergencies and in situations where air may be displaced by vapors.

Eye Protection: Use chemical protective safety glasses.

Protective Clothing: Where there is potential for skin contact, use appropriate impervious gloves, apron, pants and jacket. Exposure

Guidelines: Applicable Exposure Limits.

Isopropyl Alcohol:

PEL (OSHA) 400 ppm TWA

TLV (ACGIH) 400 ppm TWA, 500 ppm STEL

Ethyl Alcohol:

PEL (OSHA) 1,000 ppm TWA
 TLV (ACGIH) 1,000 ppm TWA

Methanol:

PEL (OSHA) 200 ppm TWA
 TLV (ACGIH) 200 ppm TWA, 250 ppm STEL

Tetrafluoroethane:

AEL (OSHA) 1000 ppm TWA, 1,000 ppm STEL
 TLV (ACGIH) 1000 ppm TWA

NFPA, NPCA-HIMIS RATING:

Health	1
Flammability	3
Reactivity	1

Personal Protection rating to be supplied by user depending on use conditions.

9. Physical and Chemical Properties

Physical Form: Clear colorless liquid
Odor: Characteristic alcohol
Boiling Point: 77.6° C / 173° F
pH: Not Determined
Solubility in Water: Complete
Specific Gravity: .790 @ 15° C / 60° F
% Volatile by Weight: 100
Vapor Pressure: 39mmHg @ 20° C / 70° F
Vapor Density (air=1): 1.82

10. Reactivity

Chemical Stability: Material is stable.

Hazardous Polymerization: Will not occur.

Incompatibilities: Avoid concentrated nitric and sulfuric acids, strong oxidizers, aldehydes, acetyl chloride, halogens and halogen compounds.

Decomposition Products: Burning may produce carbon monoxide and/or carbon dioxide.

11. Toxicological Information

Oral LD50=5,045 mg/kg in rats. Dermal LD50 = 12.8 gm/kg in rabbits. Inhalation LC50=16,000 ppm/8 hour in rats.

Carcinogenicity: None of the components present in ProClean Solvent are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

12. Ecological Information**Aquatic Toxicity:**

96 hour LC50 in fish: >100.0 mg/L

This material is not expected to be toxic to aquatic life.

13. Disposal Considerations

Waste Disposal: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations.

14. Transportation Information**Transport for ProClean Aerosol Packaging:**

Ground Transport: Consumer Commodity ORM-D

Air Transport: Aerosols Flammable NOS, UN1950, Class 2.1, Pkg.Group N/A, Pkg.Instr.203 Hazard Label: Flammable Gas

Transport for ProClean Presaturated Wipe Packaging:

Ground Transport: Consumer Commodity ORM-D

Air Transport: Solids Containing a Flammable Liquid N.O.S. (Isopropanol), UN3175, Class 4.1, Pkg.Group II, Pkg.Instr.415 Hazard Label: Flammable Solid

Transport for ProClean Liquid Packaging/Non Aerosol:

Ground Transport: Flammable Liquid N.O.S. (Isopropanol), UN1993, Class 3, Pkg.Group II. Hazard label: Flammable Liquid.

Air Transport: Contact MicroCare prior to shipping bulk packaged ProClean Solvent by air freight.

15. Regulatory Information

Section 313 Supplier Information: This material contains the following toxic chemicals subject to the emergency reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40 CFR 372:

CAS#	Chemical Name	% by Weight
67-63-0	Isopropyl Alcohol	50.0 %
67-56-1	Methanol	1.88 %

This information must be included in all MSDSs that are copied and distributed for this material.

Title III Hazard Communications Sections 311, 312

Acute	Yes
Chronic	Yes
Fire	Yes
Reactivity	No

California V.O.C. Data: ProClean contains 785 grams total VOC per liter. Contents packaged 340 grams per unit aerosol container.

16. Other Information

For additional information, go to www.microcare.com or contact Tech Support at MicroCare: Telephone (860) 827-0626 or email: techsupport@microcare.com