



MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Product Name: Axarel 2200; #MCC-AXL; #MCC-AXLW; #MCC-AXLG; #MCC-AXLP; #MCC-AXLD

Chemical Family: Mixed hydrocarbon solvents. In the aerosol form, tetrafluoroethane is used as a propellant.

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

Emergency Telephone: CHEMTREC (800) 424-9300

2. Composition/Information on Ingredients

Material

Chemical Name	Wt.%Range	TLV Units
Axarel 2200 Solvent	80.0-100.0	See Section 8 & 11
Tetrafluoroethane (aerosol only) CAS #811-97-2	0-20.0	1000 ppm

Active Ingredients

Chemical Name	Wt.%Range	TLV Units
Mixed Aliphatic Hydrocarbons CAS # 90622-57-4	30.0-60.0	See Section 8 & 11
1-Propoxy-2-Propanol CAS #1569-01-3	30.0-60.0	See Section 8 & 11

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

3. Hazard Identification

Emergency Overview: Combustible Liquid per 49 CFR 173.150 (f). Colorless liquid with a distinctive 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: May cause irritation with discomfort, tearing or blurring of vision. 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: Contact for several hours can cause mild to moderate local redness and swelling. Longer contact may cause severe redness and swelling, local ulceration and necrosis. This material can be absorbed through the skin in toxic amounts.

Ingestion: Can cause severe irritation of the gastrointestinal tract with nausea, vomiting, abdominal cramps, diarrhea, dizziness, headache, weakness, drowsiness and unconsciousness. Possible kidney and liver injury may also occur. Aspiration into the lungs during ingestion or vomiting may cause lung damage.

Inhalation: At low concentration levels: may cause mild irritation to nose and throat with coughing, discomfort and shortness of breath. Higher or prolonged exposures may cause temporary nervous system depression with anesthetic effects, e.g. dizziness, headache, confusion, incoordination, and loss of consciousness.

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. Do not induce vomiting. Do not give stimulants. Never give anything by mouth to an unconscious person. Call a physician.

Note to physicians: Activated charcoal slurry may be administered. To prepare activated charcoal slurry, suspend 50 grams activated charcoal in 400 mL of water and mix thoroughly. Administer 5 mL/kg, or 350 mL for average adult. 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.

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.

5. Firefighting Measures

Flash Point: 111° F/44° C, Tag Closed Cup, ASTM-D-56.

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.

Tetrafluoroethane:

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

NFPA, NPCA-HIMIS RATING:

Health	1
Flammability	2
Reactivity	0

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-like
Boiling Point: 149-193° C / 300-380° F
pH: Not determined
Solubility in Water: 60% by weight
Specific Gravity: .82 @ 25° C / 77° F
% Volatile by Weight: 100
Vapor Pressure: 2mmHg @ 20° C / 68° F
Vapor Density (air=1): 5.0

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

Mixed Aliphatic Hydrocarbons: Skin absorption LD 50: >10,000 mg/kg in rats. These hydrocarbons are slight skin and eye irritants.

1-Propoxy-2-Propanol: Skin absorption LD50: 3,560 mg/kg in rabbits. Oral LD50: 3,250 mg/kg in rats. Repeated airborne exposure to 500-2,000 ppm caused injury to the cornea in rats. Inhalation exposure of pregnant rats to 1,500 ppm resulted only in fetus having poorly ossified limb phalanges. No toxic effects in the mother or offspring were seen in rabbits at 1,500 ppm.

Persons with preexisting dermatitis, asthma or fibrotoxic pulmonary disease may be more susceptible to the toxic effects of this product.

Carcinogenicity: None of the components present in Axarel 2200 are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

12. Ecological Information

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 Axarel 2200 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 Axarel 2200 Liquid Packaging/Non Aerosol:

Ground Transport: Liquid Cleaning Compound N.O.S. Not D.O.T. Regulated per 49 CFR 173.150 (f)

Air Transport: Flammable Liquid N.O.S. (1-Propoxy-2-Propanol and Mixed Aliphatic Hydrocarbons), Class 3, Pkg. Group III, UN1993, Pkg. Instr. 309 Hazard Label: Flammable Liquid

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
	none	

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: Axarel 2200 contains 785 grams total VOC per liter. Contents packaged 340 grams per unit aerosol container.

16. Other Information

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