Material Safety Data Sheet

Section 1. Product and company identification

Product name: Power Plumber - Jelmar
Manufacturer: Airosol Company, Inc. 1101 Illinois Street Neodesha, KS 66757
Telephone number for information: 620-325-2666
Infotrac: 1-800-535-5053
EPA registration number: N/A
Date prepared: January 22, 2004
Code number: 77600
Chemical family: Hydrofluorocarbon propellant.
MSDS number: 77600

Section 2. Composition/information on ingredients

Chemical ingredients	
1,1,1,2-Tetrafluoroethane (HFC-134-A)	
Dimethoxymethane	
CAS Reg. No.	
1,1,1,2-Tetrafluoroethane (HFC-134-A)	811-97-2
Dimethoxymethane	109-87-5

Section 3. Hazards identification

Emergency overview: Clear, colorless liquified gas with faint etheral odor.
Potential health effects: Acute eye: Considered an eye irritant, causes redness, irritation, tearing. Acute skin: Contact with rapidly volatilizing liquid or cold vapor can cause frostbite to any tissue. Acute inhalation: High concentrations are irritating to the respiratory tract and may result in (CNS) effects such as headache, dizziness, anesthesia, drowsiness, and in severe exposure, loss of consciousness and death. Acute ingestion: Not applicable – product is a gas at ambient temperatures.
Chronic effects: None known.

Section 4. First aid measures

Eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes lifting upper and lower eyelids to insure complete flushing. Seek immediate medical attention if irritation persists.
Skin exposure: In case of contact, flush exposed skin with lukewarm water (not hot), or use other means to warm skin slowly. Get medical attention if frostbitten by liquid or any irritation occurs.

Section 4. First aid measures (cont.)

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Do not give adrenaline, epinephrin or similar drugs following exposure to this product.
Ingestion: Ingestion is not considered a potential route of exposure. Product is a gas under normal conditions.

Section 5. Fire fighting measures

Flash point: NA - Gas
Lower explosive limit: None **Upper explosive limit:** None
Extinguishing media: Recommended: foam, water, carbon dioxide, dry chemical.
Special fire fighting procedures: Thermal decomposition of this product is toxic. Water spray can be used to reduce intensity of flames, dilute spills and keep containers cool.
Personal protective equipment: Wear self-contained breathing apparatus (pressure-demand MSHA/NIOSH approved or equivalent) and full protective gear.
Unusual fire and explosion hazards: Vapor is heavier than air and can travel long distances. May decompose during contact with flames, heating elements or in combustion engines releasing irritating, toxic and corrosive gases. Container may rupture if heated due to resulting pressure use.
Hazardous decomposition materials (under fire conditions): Hydrogen fluoride, carbon monoxide, carbon dioxide, methanol, and formaldehyde.

Section 6. Accidental release measures

Evacuation procedures and safety: Wear appropriate protective gear for the situation. See personal protection information in Section 8.
Containment of spill: Use Halogen leak detector or other suitable means to locate leaks or check atmosphere. Keep upwind. Evacuate enclosed spaces and disperse gas with floor-level forced-air ventilation. Exhaust vapors outdoors. Do not smoke or operate internal combustion engines. Remove flames and heating elements.
Cleanup and disposal of spill: Recover, reclaim, or recycle when practical. Dispose of in accordance with federal, state, and local regulations.
Environmental and regulatory reporting: Comply with all local, federal, and state regulations.

Section 7: Handling and Storage

Minimum/maximum storage temperatures: Do not store in direct sunlight or above 120°F. Keep away from heat, sparks, or flames.
Handling: Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Keep container closed. Use only with adequate ventilation. Do not enter confined spaces unless adequately ventilated.
Storage: Do not store in direct sunlight or above 120°F. Keep away from heat, sparks, or flames.

Section 8. Exposure controls/personal protection

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.
Eye contact: To avoid eye contact, wear safety glasses with side shields or chemical goggles.
Skin contact: To avoid skin contact, wear appropriate chemical resistant protective clothing and chemical resistant gloves.
Respiratory protection: Avoid breathing gas. When airborne exposure limits are exceeded use NIOSH approved respiratory protection equipment appropriate to the material and/or is components (full facepiece recommended). Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR 1910.134.
Engineering controls: Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation necessary to control exposure levels below airborne exposure limits. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.
Exposure guidelines: 1,1,1,2-terafluoroethane (CAS # 811-97-2) 1000 ppm (WEEL TWA) Dimethoxymethane (CAS # 109-87-5) 1000 ppm (OSHA) 1000 ppm (ACGHI)

Section 9. Physical and chemical properties

Color: Clear, colorless liquified gas.
Odor characteristic: Faint etheral odor.
pH: N/A
Specific gravity (Water = 1): 1.21
Vapor density (Air = 1): 3.54
Vapor pressure: 85.7 psia @ 21.1 C (70 F)
Boiling point: -26.4C / -15.5F
Solubility in water: 0.9 g/l

Section 10. Stability and reactivity

Chemical stability: Stable at normal temperatures and storage conditions.
Hazardous polymerization: Will not occur.
Conditions to avoid: Avoid direct sunlight and temperatures above 120°F.
Chemical incompatibility: Avoid contact with strong alkalis or alkaline earth metals, finely powdered metals such as aluminum, magnesium, or zinc and strong oxidizers, since they may react or accelerate decomposition.
Hazardous decomposition products: Halogen acid, Carbon monoxide, Carbon dioxide, and Carbonyl halide.

Section 11.Toxicological information

Acute Data
Eye irritation: Rabbit: Slightly irritating.

Section 11.Toxicological information (cont.)

Skin irritation: Slightly irritating in 24 hours.
Oral LD_{50}: No data.
Dermal LD_{50}: No data.
Inhalation LC_{50}: Rabbit: 4 hr LC-50> 500,000 ppm
Skin sensitization: Guinea pig: none.
Chronic Data
Chronic toxicity studies: None known.
Mutagenicity data: None available.
Reproductive/teratology data: No birth defects were noted in rats and rabbits exposed during pregnancy.
Carcinogenicity data: None known.

Section 12. Ecological information

Eco-acute toxicity : No data.
Environmental fate Based on its low n-octanol/water partition coefficient (log Pow 1.06), bioaccumulation of this material is considered unlikely. When evaluated in a 28 day activated sludge test, 3% degradation of this material was observed.

Section 13. Disposal considerations

Procedures: Recover, reclaim, or recycle when practical. Dispose of in accordance with federal, state, and local regulations.

Section 14.Transportation information

Proper shipping name: Ground Transportation: (49CFR) Consumer Commodity ORM-D IATA (IMDG) –Aerosols, non-flammable, (each not exceeding 1 L capacity), 2.2,UN1950, LTD. QTY.
Hazard class: Class 2.2.
UN No.: UN 1950
Special information: None
Packing group: None.

Section 15. Regulatory information

Workplace classification: This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).
SARA Title 3: Yes 1,1,1,2-Tetrafluoroethane 811-97-2 90-95 %
TSCA status: Listed.
RCRA classification: Unknown.
CERCLA reportable quantity: None listed.

Section 16. Other information

National Fire Protection Association (NFPA) ratings: Level one aerosol.
Issue date: 1/22/2004
Revised date:
Supersedes:
Responsibility for MSDS: Airosol Company, Inc.
Address: P.O. Box 120 1101 Illinois St. Neodesha, KS 66757