

Material Safety Data Sheet

140 Fernstaff Court, Unit 3
Concord, Ontario L4K 3L8
Tel: 905 738-1850 Fax: 905 738-9524
e-mail: newsales@airpak.net
www.airpak.net

EMERGENCY CONTACTS
TEL: CANUTECH (613) 996-6666

Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Precision Duster PD285 / 400 Aerosol
CAS Number: 881-97-2
MSDS Number: PD285/400
Date Issued: May 1, 1999
Product Use: Refrigerant; aerosol propellant

Section 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s):
1,1,1,2 – TETRAFLUOROETHANE
%(W): 99-100 CGIH TWA: 1000ppm
CASE NO.: 811-97-2

Section 3 – HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Liquid splashes or spray may cause freeze burns. Harmful by inhalation. May cause neurological disorder. May cause cardiac effects.

Section 4 – FIRST AID MEASURES

General: If you feel unwell, seek medical advice (show the label where possible).
Inhalation: Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Obtain medical attention IMMEDIATELY.
Skin Contact: Treat frostbite by immediately immersing affected areas in warm water until the skin has warmed up and turned pink. Obtain medical attention IMMEDIATELY.
Eye Contact: Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY.
Ingestion: Not applicable
***Note to Physicians:** Symptomatic. Do not give vasopressor drugs (eg. Epinephrine, adrenaline, ephedrine, etc.) as there may be danger of producing cardiac arrhythmia.

Section 5 – Fire Fighting Measures

Flash Point: This product does not flash
Flammable Limits (Lower): Not Applicable
Flammable Limits (Upper): Not Applicable
Auto Ignition Temperature: Not Applicable
Decomposition Temperature: Not Available
Rate of Burning: Not Available
Explosive Power: Not Available
Sensitivity to Mechanical Impact: Not Applicable
Sensitivity to Static Discharge: Not expected to be sensitive to static discharge
Hazardous Reactions: May react violently with metals such as sodium, potassium, and barium particularly if they are finely divided.
Fire and Explosive Hazards: Containers may burst under intense heat.
Extinguishing Media: As appropriate for surrounding materials / equipment.
Fire Fighting Procedures: Water spray should be used to cool containers.
NOTE: ALSO SEE SECTION 10 – STABILITY / REACTIVITY.

Section 6 – Accidental Release Measures

Spills, Leaks, or Releases: Move unprotected personnel upwind of leaking container. Call Emergency response naming the chemical and the

type of container that is leaking. Consider the use of fog-nozzles to control vapors. Do not immerse in water. Notify applicable government authority if release is reportable or could adversely affect the environment.

Deactivating Chemicals: Not Required.

Section 7 – Handling and Storage

Handling: Use only with adequate ventilation and avoid breathing vapors. Secure containers at all times. Leaks should be fixed promptly.
Storage Requirements: Keep containers tightly closed, in a cool, well ventilated place. Avoid high temperatures. Keep containers standing upright. Keep containers dry.
Storage Temperature: Ideal storage temperature is 10-27°C. Do not expose sealed containers to temperatures above 55°C.

Section 8 – Exposure Control / Personal Protection

Preventative Measures: Recommendation listed in this section indicate the type of equipment which will provide protection against over exposure to this product. Conditions of use, adequacy, of engineering or other control measures, and actual exposures will dictate the need for specific protection devices at your workplace.

Engineering Controls: Local exhaust ventilation recommended.

Personal Protective Equipment:

Eye Protection: Use chemical safety goggles when there is potential for eye contact.
Skin Protection: Use gloves and protective clothing made of material which has been found by user to be impervious under conditions of use.
Respiratory Protection: A NIOSH/MSHA approved air-purifying respirator equipped with organic vapor cartridges up to ten times the TLV or 1000 ppm. An air-supplied respirator if concentrations are high or unknown.

Exposure Guidelines:

Product: None established for product.
Hazardous Ingredient(s): 1,1,1,2 – Tetrafluoroethane, ICI Guideline, 1000 ppm internal TWA.

Section 9 – Physical & Chemical Properties

Alternate Name(s): R134a, HFC 134a, HFT 134a
Chemical Name(s): 1,1,1,2 - Tetrafluoroethane
Chemical Family: Halogenated Hydrocarbon
Molecular Formula: C₂F₄H₂
Appearance: Colorless, Liquefied Gas
Odor: Faint Ethereal Odor
pH: (Neutral)
Vapor Pressure (mm Hg at 20°C): 4268
Vapor Density (Air=1): 3.3
Boiling Point: -26°C
Melting Point: -117°C
Freezing Point: -117°C
Solubility (Water): (Slight)
Solubility (Other): Soluble in Chlorinated Solvents & Alcohols.
Specific Gravity: 1.27
Evaporation Rate: Not Available
% Volatile By Volume: 100%
Molecular Weight: 102

Section 10 – Stability and Reactivity

Hazardous Decomposition Products: Thermal decomposition products are toxic and may include hydrocarbons, organic and acid halides and oxides of carbon.
Chemical Stability: Stable at room temperatures.
Conditions to Avoid: Keep away from heat, sparks, and flames. Avoid high temperatures.
Incompatibility with Other Substances: May react violently with metals such as sodium, potassium, and barium particularly if they are finely divided.
Hazardous Polymerization: Will not occur.

Section 11 – Toxicological Information

Summary: Liquid splashes may cause freeze burns. May cause central nervous system (CNS) depression. May cause cardiac arrhythmia.
Toxicological Data:
Product: None established for product.

Ingredients: 1,1,1,2 – Tetrafluoroethane
Inhalation LC50 (rat) = 500000 ppm / 4H

Potential Health Effects:

Inhalation: High concentration of product are irritating to the respiratory tract.
Skin Contact: Liquid splashes or spray may cause freeze burns. Well remove the natural greases resulting in dryness, cracking and dermatitis.
Eye Contact: The vapor is irritant. Liquid splashes or spray may cause freeze burns.
Ingestion: Product is a gas. Therefore ingestion is not a likely route of exposure.
Subchronic Effect: This product may sensitize heart muscles causing cardiac arrhythmia, in rare cases. CNS Depression is characterized by headache, dizziness, drowsiness, nausea, vomiting, and incoordination. Severe overexposures may lead to coma and possible death due to respiratory failure.
Chronic Effects: None Known.
Carcinogenicity: The ingredient(s) of this product is (are) not classified as carcinogenic by ACGIH (American Conference of Governmental Industrial Hygienists) or IARC (International Agency for Research on Cancer), not regulated as carcinogens by OSHA (Occupational Safety and Health Administration), and not listed as carcinogens by NTP (National Toxicology Program).
Mutagenicity: There is no evidence of mutagenic potential.
Reproductive Effects: No information is available and no adverse reproductive effects are anticipated.
Teratogenicity and Fetotoxicity: No information is available and no adverse teratogenic / embryotoxic effects are anticipated.
Synergistic Materials: Consumption of alcohol increases toxic effects.

Section 12 – Ecological Information

Ecotoxicological Information: None Known
Persistence and Degradation: The substance is highly reactive and will not persist in the environment.

Section 13 – Disposal Considerations

RETURN CONTAINER TO MANUFACTURER.

Section 14 – Transportation Information

TDG Name: 1,1,1,2 –Tetrafluoroethane
TDG Class/Division: 2.2
Product Identification Number (PIN): UN3159
TRANSPORT CANADA EXEMPTION # TCSU5016NRC
Transportation Emergency Number: 1-800-561-3636
DOT Class: 2.2 – Non-Flammable Gas

Section 15 – Regulatory Information

Canadian Classification: This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and this MSDS (Material Safety Data Sheet) contains all the information required by the CPR.
Controlled Products Regulations (WHMIS) Classification: A: Compressed Gas.
CEPA / Canada Domestic Substance List (DSL): The substance(s) in this product is/are on the Canadian Domestic Substance List (CEPA DSL).
USA Classification:
OSHA Classification: Physical: Compressed Gases
Health: Not Regulated
Target Organ: Central Nervous System, Cardiovascular System
SARA Regulations Section 313 and 40 CFR 372: This product does not contain any chemicals subject to reporting substances.
Other Regulations / Legislation which apply to this product: Not Known.

Prepared by: AIRPAK INC.

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