



# Duster

## Ultra Pure Duster 1671

### Introduction

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Formulated with HFC-134a, this exceptionally pure, moisture-free, inert gas removes particles without the use of harmful solvents. Because HFCs do not harm the ozone, this product has a zero ozone depletion factor. Duster removes microscopic contaminants, lint, dust, metallic oxide deposits and other soils.

#### Features / Benefits

- Non-Flammable
- Non-Ozone Depleting
- Moisture-Free Gas
- Odorless
- Zero Residue

### Chemical Components

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1,1,1,2-Tetrafluoroethane..... (811-97-2)      100%

### Environmental Policy

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Techspray® is committed to developing products to ensure a safer and cleaner environment. We will continue to meet and sustain the regulations of all federal, state and local government agencies.

### Packaging and Availability

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Duster is available in the following sizes:

- 1671-8S      8 Ounce Aerosol
- 1671-10S      10 Ounce Aerosol
- 1671-10RS      10 Ounce Aerosol Refill
- 1671-15S      15 Ounce Aerosol
- 1671-10SK      1 Kit Containing:
  - 1671-10RS
  - Multi-Directional Spray Attachment

# MATERIAL SAFETY DATA SHEET



MSDS Ref. No : ms1671-A

## DUSTING GAS

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### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** DUSTING GAS**PRODUCT DESCRIPTION:** Inert Dusting Gas**PRODUCT CODE:** 1671/CAN/EUR-8S, 10S, 10RS, 15S, 10SK**CHEMICAL FAMILY:** Hydrofluorocarbons**GENERIC NAME:** HFC-134a

### MANUFACTURER

Techspray, L.P.

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### 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Content</u>	<u>CAS</u>	<u>EINECS</u>
1,1,1,2-Tetrafluoroethane (HFC-134a)	100	811-97-2	223770

#### EEC LABEL SYMBOL AND CLASSIFICATION

Currently not classified according to EEC Directives.

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### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**PHYSICAL APPEARANCE:** Clear, Colorless, Volatile Liquid**IMMEDIATE CONCERNS:** Warning! High concentrations of vapor can reduce oxygen available for breathing. Harmful if inhaled. May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products.

#### POTENTIAL HEALTH EFFECTS

**EYES:** Liquid contact can cause irritation, which may be severe.

**SKIN:** Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

**INHALATION:** High concentrations in immediate area can displace oxygen and can cause dizziness, unconsciousness, and possibly death with longer exposure. Keep people away from such vapors without self-contained breathing apparatus.

#### **SIGNS AND SYMPTOMS OF OVEREXPOSURE**

**EYES:** Can cause severe eye irritation.

**SKIN:** Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold" burn).

**INHALATION:** High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).

**ACUTE TOXICITY:** Overexposure may cause dizziness and loss of concentration. At higher levels, CNS depression and cardiac arrhythmia may result.

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## **4. FIRST AID MEASURES**

**EYES:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

**SKIN:** In case of cold burns (frostbite) caused by rapidly expanding gas or vaporizing liquids, get medical attention promptly.

**INGESTION:** Ingestion is unlikely because of the physical properties and is not expected to be hazardous. Do not induce vomiting unless instructed to do so by a physician.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

**NOTES TO PHYSICIAN:** Because of the possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be used with special caution and only in situations of emergency life support. Treatment of overexposure should be directed at the control of symptoms and the clinical conditions.

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## **5. FIRE FIGHTING MEASURES**

**FLASHPOINT AND METHOD:** Not Applicable

**FLAMMABLE LIMITS:** None\*

**AUTOIGNITION TEMPERATURE:** > 750°C (1382°F)

**FLAMMABLE CLASS:** Not Applicable

**FLAME PROPAGATION OR BURNING RATE OF SOLIDS:** Not Applicable

**EXTINGUISHING MEDIA:** As appropriate for combustibles in area.

**EXPLOSION HAZARDS:** This product is not flammable at ambient temperatures and atmospheric pressure.

**RESPIRATORY:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Gas

**ODOR:** Faint ethereal odor

**pH:** Neutral

**PERCENT VOLATILE:** 100 at 20°C (68°F)

**VAPOR PRESSURE:** 85.8 psi at 21.1°C (70°F)

**VAPOR DENSITY:** 3.5 (Air=1)

**BOILING POINT:** -26.2°C (-15.1°F)

**FREEZING POINT:** -101°C (-149.8°F)

**SOLUBILITY IN WATER:** Negligible

**EVAPORATION RATE:** > 1 (CCL4=1)

**SPECIFIC GRAVITY:** 1.22 (water=1) at 20°C (68°F)

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## 10. STABILITY AND REACTIVITY

**STABLE:** YES

**HAZARDOUS POLYMERIZATION:** NO

**CONDITIONS TO AVOID:** Stable. However, may decompose if heated.

**STABILITY:** Stable.

**POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** When exposed to high temperatures or flames this product may form hydrochloric and hydrofluoric acids - possibly carbonyl halides.

**INCOMPATIBLE MATERIALS:** Chemically active metals: potassium, calcium, powdered aluminum, magnesium and zinc.

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## 11. TOXICOLOGICAL INFORMATION

<b>INGREDIENT(S)</b>	<b>ORAL LD<sub>50</sub> (rat)</b>	<b>DERMAL LD<sub>50</sub> (rabbit)</b>	<b>INHALATION LC<sub>50</sub> (rat)</b>
1,1,1,2-Tetrafluoroethane (HFC-134a)			500000 - ppm
<b>ACUTE</b>			
<b>INHALATION LC<sub>50</sub>:</b>	> 500000 ppm, 4-hour		

**SENSITIZATION:** Cardiac sensitization threshold (dog) 80,000 ppm. NOEL - 50,000 ppm.

**SUBCHRONIC:** Subchronic inhalation (rat) NOEL - 50,000 ppm

**CHRONIC:** Chronic NOEL - 10,000 ppm

**15. REGULATORY INFORMATION****UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****311/312 HAZARD CATEGORIES:** IMMEDIATE / PRESSURE**PRESSURE GENERATING:** YES **ACUTE:** YES**313 REPORTABLE INGREDIENTS:** Not considered a SARA 313 "Toxic Chemical".**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)****CERCLA REGULATORY:** Releases to air, land, or water which exceed the RQ must be reported to the National Response Center [(800)424-8802] and to your Local Emergency Planning Committee.**TSCA (TOXIC SUBSTANCE CONTROL ACT)****TSCA REGULATORY:** This product is listed on the TSCA Inventory.**CANADA****WHMIS CLASS:** Class A, Class D2B.**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components of this product are listed on the Canadian DSL.**EUROPEAN COMMUNITY****EEC LABEL SYMBOL AND CLASSIFICATION**

Currently not classified according to EEC Directives.

**CALIFORNIA PROPOSITION 65:** This product does not contain any chemicals known to the State of California to cause cancer.**GENERAL COMMENTS:** 1,1,1,2-tetrafluoroethane is subject to U.S. Environmental Agency Clean Air Act Regulations, (40CFR Part 82).**COMMENTS:** WARNING: Contains 1,1,1,2-tetrafluoroethane (HFC-134a), a greenhouse gas which may contribute to global warming.**16. OTHER INFORMATION****PREPARED BY:** D.M. Morelos**REVISION SUMMARY** Revision #: 6 This MSDS replaces the December 03, 2004 MSDS. Any changes in information are as follows: In Section 1 Product Code**HMIS RATING**

<b>HEALTH:</b>		<b>1</b>
<b>FLAMMABILITY:</b>		<b>1</b>
<b>PHYSICAL HAZARD:</b>		<b>0</b>
<b>PERSONAL PROTECTION:</b>		

**NFPA CODES**