

Trade Name: 152a Duster Conforms to ANSI Z400.5-2004 Standard (United States, Canada).
MSDS NO. ShieldMe
Revision Date: 04/15/2011

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: 152a Duster
Chemical Family: Refrigerant Gas
Synonyms: None
Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300
Supplier/Manufacturer: Kleen Concepts
8551 East Anderson Drive, Suite 108 Tel: 1-480-515-5576
Scottsdale, AZ 85255 Fax: 1-480-515-5594

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	OSHA TWA	OSHA STEL	OSHA SKIN
HFC-152a 75-37-6	99-100	Not Listed	Not Listed	Not Listed

Component	Weight %	OSHA Z PEL	OSHA Z TWA	OSHA Z Ceiling
HFC-152a 75-37-6	99-100	Not Listed	Not Listed	Not Listed

Component	ACGIH TLV TWA	ACGIH TLV STEL	ACGIH TLV Ceiling
HFC-152a 75-37-6	Not Listed	Not Listed	Not Listed

Other: Contains no other ingredients in concentrations >.1% that are now known to be hazardous as defined by OSHA.

3. HAZARDS IDENTIFICATION

Emergency Overview: Flammable material. Colorless Liquid. Volatile liquid with ethereal and faint sweetish odor. Overexposure may cause dizziness and loss of concentration. At higher levels, CNS depression and cardiac arrhythmia may result from exposure. Vapors displace air and can cause asphyxiation in confined spaces. At higher temperatures, (>250C), decomposition products may include Hydrofluoric Acid (HF) and carbonyl halides.

HMIS Classification: Health: 1 Flammability: 2 Reactivity: 0
NFPA Rating: HEALTH 2, FLAMMABILITY 2, REACTIVITY 0

4. FIRST AID MEASURES

Eye Contact: Liquid contact can cause severe irritation and frostbite. Mist may irritate.
Ingestion: Ingestion is unlikely. Should it occur, discomfort in the gastrointestinal tract from rapid evaporation of the material and consequent evolution of gas would result. Some effects of inhalation and skin exposure would be expected.
Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult. At high levels, cardiac arrhythmia may occur.
Skin Contact: For exposure to liquid, immediately warm frostbite area with warm water (not to exceed 105°F). In case of massive exposure, remove clothing while showering with warm water. Get medical attention. Irritation may result from a defatting action on tissue

5. FIRE FIGHTING MEASURES**Flammable Properties**

Flash Point °F(°C): <-58F (<-50 C) (Liquid)
Flash Point Method: Not Applicable
Flammable Limits in Air - Lower (%): 3.7
Flammable Limits in Air - Upper (%): 18.0
Autoignition Temperature °F(°C): 851 F (455 C)
Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Use water spray to keep containers cool that are exposed to heat or flames.

Trade Name: 152a Duster
MSDS NO. ShieldMe
Revision Date: 04/15/2011

Conforms to ANSI Z400.5-2004 Standard (United States, Canada).

5. FIRE FIGHTING MEASURES

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures:

Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Warning!! Contents under pressure. Container may rupture under fire conditions. Decomposition may occur.

Hazardous Combustion Products:

Exposure to fires could cause containers to rupture or explode. Formation of dangerous gas/vapors in case of decomposition. Contact with certain reactive metals may result in formation of explosive or exothermic reactions under specific conditions (e.g. very high temperatures and/or appropriate pressures).

Aerosol Comments:

NFPA Level 1 Aerosol

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Wear appropriate protective clothing and equipment to prevent skin and eye contact. Avoid breathing vapor. When airborne exposure limits are exceeded use NIOSH approved respiratory protection equipment appropriate to the material and/or its components.

Spill Procedures:

Wear protective equipment specified. Avoid all sources of ignition; heat, sparks and open flames. 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. Evacuate unprotected personnel

Action to be taken if material is released or spilled:

Increase area ventilation. Do not puncture or incinerate container. Contents under pressure.

Environmental Precautions:

Do not allow entry to the atmosphere. Recover, reclaim or recycle when practical.

7. HANDLING AND STORAGE

Handling and Storage:

Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Use only in a well ventilated area. Do not reuse this container. CAUTION: COMPRESSED GAS. Keep away from heat and open flame. Do not puncture, incinerate or store above 120 F. Do not store in passenger compartment of automobile. Use ground strap.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Showers. Eyewash stations.

Eyes:

Chemical goggles; also wear a face shield if splashing hazard exists.

Skin Protection:

Avoid skin contact. Wear protective clothing and gloves.

Respiratory Protection:

Use in a well ventilated area. An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquified gas.
Odor: MILD ETHER LIKE
pH Value: Neutral
Vapor Pressure: 87.2 psia @ 70F
Vapor Density (Air=1): 2.29
Boiling Point (°F): -11.3 F (-24.05 C)
Melting/Freezing Point: -117 C
Solubility in Water: UNKNOWN
Bulk Density at 20°C: Not Determined
Molecular Weight: 66.05
Specific Gravity (H2O=1): 0.909 @ 21.1 C
Viscosity: Not determined.
Evaporation Rate: >1
VOC Content(%): 0
Decomposition Temperature: >698 F (>370 C)

10. STABILITY AND REACTIVITY

Chemical Stability:
Conditions to Avoid:
Materials to Avoid:

Stable under normal temperatures and pressures. Explosions may result if in flammable range. Keep away from heat, sparks and flame. Do not expose to heat or store at temperatures above 120 F. Avoid finely powdered metals such as aluminum, magnesium or zinc. Strong oxidizers. Avoid contact with alkali or alkaline earth metals.

Trade Name: 152a Duster
 MSDS NO. ShieldMe
 Revision Date: 04/15/2011

Conforms to ANSI Z400.5-2004 Standard (United States, Canada).

10. STABILITY AND REACTIVITY

Hazardous Decomposition Products: Thermal decomposition products include hydrogen fluoride, hydrogen chloride, carbon monoxide, carbon dioxide and chlorine.
Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Component	Route	Species	Dose
HFC-152a 75-37-6	Inhalation	Rats	Not known.

Carcinogenicity:

Component	IARC	NTP	OSHA
HFC-152a 75-37-6	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Remarks: Aquatic Toxicity: 48 hour EC50 - Daphnia magna: 980 mg/L, 96 hour LC50 - Rainbow trout: 450 mg/L

13. DISPOSAL CONSIDERATION

Waste Classification: Discarded product may be classified as ignitable waste (D001) per US EPA
Waste Management: Not determined.
Disposal Method: Disposal should be made in accordance with federal, state and local regulations. Recover, reclaim or recycle when practical.

14. TRANSPORTATION INFORMATION

U.S. DOT:

Proper Shipping Name: 1,1 Difluoroethane
Hazard Class: 2.1
UN/NA Number: UN1030
DOT Packing Group: NA

IMDG:

Proper Shipping Name: 1,1 Difluoroethane (Limited Quantity)
Hazard Class: 2.1
Hazard Subclass: NA
UN No.: UN1030
Packing Group: NA
Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

Component	SARA 313	SARA 302	TPQ	RQ
HFC-152a 75-37-6	Not Listed	Not Listed	Not Listed	Not Listed

SARA 311/312 Hazard Categories: Acute, Fire, Pressure

State Regulations:



DUSTER

MATERIAL SAFETY DATA SHEET

Trade Name: 152a Duster
MSDS NO. ShieldMe
Revision Date: 04/15/2011

Conforms to ANSI Z400.5-2004 Standard (United States, Canada).

Component	California Prop. 65 Cancer list	California - Prop 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
HFC-152a 75-37-6	Not Listed	Not Listed	Not Listed	Not Listed

Component	New Jersey Right-to-Know List:
HFC-152a 75-37-6	Substance no. 0715

U.S. TSCA: The components of this product are listed on the TSCA Inventory.
Canadian Inventory: The components of this product are listed on the Canadian DSL or NDSL Inventory.

Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

16. OTHER INFORMATION

General Notes:
Disclaimer: Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system. The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.