



MATERIAL SAFETY DATA SHEET

Date Issued: 04/23/2012
MSDS No: 1580-A

Eco-Duster

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Eco-Duster
PRODUCT DESCRIPTION: Dusting Gas
PRODUCT CODE: 1580-10S

MANUFACTURER

Techspray, L.P.
1001 N.W. 1st Street
P.O. Box 949
Amarillo, TX 79107

Emergency Contact: Chemtrec
Emergency Phone: 1-800-858-4043
Service Number: 1-800-858-4043

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC CCN#21858 (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666
Emergency Phone :(800) 858 - 4043

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Liquified gas, colorless, slight odor

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). Liquid contact could cause frostbite.

INGESTION: Not likely to be ingested.

INHALATION: May cause central nervous system effects, cardiac arrhythmia, drowsiness and dizziness.

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).

INGESTION: Not a likely route of exposure.

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.

CHRONIC EFFECTS: None known.

MUTAGENICITY: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
trans-1,3,3,3-tetrafluoroprop-1-ene	100	29118-24-9



MATERIAL SAFETY DATA SHEET

Date Issued: 04/23/2012
MSDS No: 1580-A

Eco-Duster

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.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: None

FLAMMABLE LIMITS: Product exhibits flame limits at temperatures in excess of 28 C.

AUTOIGNITION TEMPERATURE: 368°C (694°F)

FLAMMABLE CLASS: Not Applicable

FLAME PROPAGATION OR BURNING RATE OF SOLIDS: Not Applicable

EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical

EXPLOSION HAZARDS: This product is not flammable at ambient temperatures and atmospheric pressure. However, this material may become combustible when mixed with air under pressure and exposed to strong ignition sources.

FIRE FIGHTING PROCEDURES: Use water spray to cool containers.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

HAZARDOUS DECOMPOSITION PRODUCTS: Some risk may be expected of corrosive and toxic decomposition products. Fire may cause evolution of hydrogen fluoride.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

RELEASE NOTES: Spills and releases may have to be reported to Federal and/or local authorities.

7. HANDLING AND STORAGE

HANDLING: Follow standard safety precautions for handling and use of compressed gas cylinders.

STORAGE: Store in a cool place in original container and protect from sunlight.

STORAGE TEMPERATURE: Contents under pressure. Do not expose to heat or store above (120) F (49) C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields (or goggles) and a face shield.

SKIN: Skin contact with liquid may cause frostbite. General work clothing and gloves (leather) should provide adequate protection. If prolonged contact with the liquid or gas is anticipated, insulated gloves constructed of PVA, neoprene or butyl rubber should be used. Any contaminated clothing should be promptly removed and



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Eco-Duster

washed before reuse.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Gas

ODOR: Faint ethereal odor

pH: Neutral

PERCENT VOLATILE: 100 at 20°C (68°F)

VAPOR PRESSURE: 60.799 psi at 20°C (68°F)

VAPOR DENSITY: 4 (Air=1)

BOILING POINT: -19°C (-2°F)

FLASHPOINT AND METHOD: None

SOLUBILITY IN WATER: 0.373 g/l

DENSITY: 1.12 at 21.1°C (70°F)

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: Stable.

POLYMERIZATION: Will not occur.

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

HAZARDOUS DECOMPOSITION PRODUCTS: When exposed to high temperatures or flames this product may form fluorocarbons and hydrogen fluoride.

INCOMPATIBLE MATERIALS: Incompatible with alkali or alkaline earth metals - powdered Al, Zn, Be, etc.

11. TOXICOLOGICAL INFORMATION

ACUTE

INHALATION LC₅₀: > 100000 ppm, 4-hour, mouse

CHRONIC: HFO-1234ze repeated dose toxicity, rat, 13 weeks - NOEL 5000 ppm

CARCINOGENICITY

IARC: NOT listed

NTP: NOT listed

OSHA: NOT listed

IRRITATION: OECD Test guideline, Rabbit - no skin irritation

SENSITIZATION: Cardiac sensitization, dogs - did not cause sensitization in laboratory animals

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Aerobic degradability: Not readily biodegradable.

13. DISPOSAL CONSIDERATIONS



MATERIAL SAFETY DATA SHEET

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Eco-Duster

GENERAL COMMENTS: Dispose of in a manner consistent with federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: CONSUMER COMMODITY ORM-D

UN/NA NUMBER: N/A

PACKING GROUP: NA

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Liquefied Gas, n.o.s.

UN NUMBER: 3163

HAZARD CLASS: 2.2

AIR (ICAO/IATA)

SHIPPING NAME: Liquefied Gas, n.o.s.

TECHNICAL NAME: trans-1,3,3,3-tetrafluoroprop-1-ene

UN/NA NUMBER: UN3163

PRIMARY HAZARD CLASS/DIVISION: 2.2

PACKING GROUP: NA

VESSEL (IMO/IMDG)

SHIPPING NAME: Liquefied Gas, n.o.s.

TECHNICAL NAME: trans-1,3,3,3-tetrafluoroprop-1-ene

UN/NA NUMBER: 3159

PRIMARY HAZARD CLASS/DIVISION: 2.2

PACKING GROUP: NA

LIMITED QUANTITY: 120mL

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".

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
trans-1,3,3,3-tetrafluoroprop-1-ene	29118-24-9

TSCA REGULATORY: This product is listed on the TSCA Inventory.

CALIFORNIA PROPOSITION 65: This product does not contain any chemicals known to the State of California to cause cancer.

CANADA

WHMIS CLASS: Class A - Aerosol



MATERIAL SAFETY DATA SHEET

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DOMESTIC SUBSTANCE LIST (INVENTORY): All components of this product are listed on the Canadian DSL.

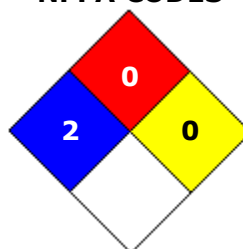
16. OTHER INFORMATION

APPROVED BY: Pierce A. Pillon **TITLE:** Chemist

HMIS RATING

HEALTH	<input type="text"/>	2
FLAMMABILITY	<input type="text"/>	0
PHYSICAL HAZARD	<input type="text"/>	0
PERSONAL PROTECTION	<input type="text"/>	

NFPA CODES



DATA SOURCES: Code of Federal Regulations (CFR) The Sigma-Aldrich Library of Regulatory and Safety Data
 OSHA Hazard Communication Standard (29CFR1910.1200) Various Federal, State and Local Regulations

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