

SECTION I **GENERAL INFORMATION**

Distributor's Name and Address:

PerfectData Corporation
110 West Easy Street
Simi Valley, California 93065-1689
(805) 581-4000

PRODUCT: 106149-1
106163-1
106164-1
106176-1

PRODUCT TYPE: Aerosol

NFPA Hazard Rating

Health 1
Flammability 0
Reactivity 1
Special None

4 = Deadly; 3 = Extremely; 2 = Hazardous; 1 = Slightly Hazardous; 0 = Normal material

EMERGENCY CONTACT: CHEMTREC (800) 424-9300

SECTION 2 **COMPOSITION/ INFORMATION ON INGREDIENTS**

MATERIAL(S)	CAS #	OSHA PEL (TWA)	ACGIH TLV (TWA)
ETHANE, 1,1,1,2 -TETRAFLUORO-	811-97-2	1000 ppm	4240 mg/m3

SECTION 3

HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:	Clear colorless liquefied gas with slight ethereal odor. Contents under pressure. Prolonged exposure to sunlight or heat may cause bursting of can. Contact with liquid can cause frostbite.
POTENTIAL HEALTH EFFECTS:	
EYE:	Vapors may irritate eyes. Liquid and mist may irritate or damage the eyes and may cause corneal burns.
SKIN:	Brief contact may dry the skin, or cause burning or stinging sensation. Prolonged or repeat contact may irritate the skin.
INHALATION:	Vapors and mists may irritate the nose and throat. Inhalation of higher concentration may cause headache, vomiting and coma. Inhalation of very prolonged exposure may cause unconsciousness or death. Note: Intentionally concentrating and inhaling vapors of this product is harmful and may be fatal.
INGESTION:	Not considered a likely route of exposure. Swallowing may cause headache, nausea, vomiting, stomach cramps and diarrhea, and perhaps unconsciousness or death.
CARCINOGENICITY:	None
CHRONIC EFFECT OF EXPOSURE:	Prolonged or repeated exposure to high concentration can produce severe or fatal CNS depression or may contribute to heart irregularities.

SECTION 4

FIRST AID MEASURES

PRINCIPLE ROUTES OF EXPOSURE:	Skin, ingestion, inhalation
SKIN CONTACT:	Immediately wash skin with lots of soap and water. Remove soiled clothing and shoes; wash before reuse. Get medical attention if irritation persists after washing.
CONTACT WITH EYES:	Immediately flush eyes with lots of running water for 15 minutes, lifting the upper and lower eyelids occasionally. Get immediate medical attention.
INGESTION:	Get immediate medical attention. Do not give anything by mouth to an unconscious or convulsing person. If physician directed or involuntary vomiting occurs, keep victim's head below his hips while vomiting so he does not breath the vomitus into his lungs. Do not induce vomiting.
INHALATION:	Remove persons to fresh air. Give artificial respiration if not breathing. Get immediate medical attention.

**NOTE TO PHYSICIANS:
BECAUSE OF POSSIBLE DISTURBANCES OF CARDIAC RHYTHM, CATECHOLAMINE DRUGS, SUCH AS EPINEPHRINE, SHOULD BE USED WITH SPECIAL CAUTION.**

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PERFECTDUSTER – HI-VELOCITY DUSTER

SECTION 5

FIRE FIGHTING MEASURES

FLASH POINT (pmcc):

Not applicable - will not burn.

AUTOIGNITION TEMPERATURE:

1382°F. R-134A has been shown to be combustible at pressure as low as 5.5 psig when mixed with air and concentration of generally more than 60 volume % air.

FIRE AND EXPLOSION HAZARDS:

Cylinders are equipped with pressure and temperature relief devices but may rupture under fire conditions. Decomposition may occur, providing hazardous/toxic by products.

EXTINGUISHING MEDIA:

Dry chemical carbon dioxide, class BC or ABC fire extinguisher.

FLAMMABLE LIMITS IN AIR, % BY VOLUME:

LEL not applicable
UEL not applicable

FIRE FIGHTING PROCEDURES:

Aerosol cans are under pressure – exposure to temperatures above 120°F. can cause bursting or “rocketing” of cans. Vapors are heavier than air and may travel along the ground or may be moved by ventilation. Self-contained breathing apparatus (SCBA) may be required if cylinders rupture or contents are released under fire conditions. Cool fire exposed containers with water spray.

FLAMMABILITY CLASSIFICATION:

Not applicable – will not burn

SECTION 6

ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR
ACCIDENTAL RELEASE:

Ventilate area. Floor might be slippery. Be sure to use caution to avoid falling. Contain spills out of sewers and away from all water bodies, etc.

SMALL SPILLS:

Absorb liquid on paper, floor absorbent, or other absorbent material and transfer to DOT-approved containers for disposal.

LARGE SPILLS:

Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill at source, dike spill to prevent from spreading, pump liquid to salvage container. Remaining material may be taken up with sand, clay, earth, floor absorbent material or other absorbent material and placed in appropriate waste container with non-sparking shovel.

WASTE DISPOSAL METHOD:

Dispose in accordance with local, State, and Federal regulations. Waste may be reclaimed or incinerated by federally permitted facilities.

NOTE: Use appropriate Personal Protection Equipment during clean up.

SECTION 7 HANDLING AND STORAGE

HANDLING AND STORAGE:

Store in a clean, dry area, out of direct sunlight, away from high temperatures, open flames, incompatibles. Store at temperatures below 120°F. Keep from freezing. Store out of direct sunlight. Prolonged exposure to direct sunshine or storage above 120°F may cause can to burst.

SAFETY PRECAUTIONS:

Avoid breathing vapors and liquid contact with skin, eyes or clothing. Use with adequate ventilation to keep employee exposure below recommended limits. Should not be mixed with air for leak testing or used with air for any other purposes above atmospheric pressure.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Respiratory protection is not required when used as directed. If release of chemical components results in PELs exceeded, wear NIOSH/MSHA jointly approved air supplied respirator. OSHA regulations also permit other NIOSH/MSHA respirators under specified conditions. (See your safety equipment supplier). Engineering or administrative controls should be implemented to reduce exposures.

VENTILATION: General ventilation should be provided for sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

PROTECTIVE GLOVES: Wear chemically resistant gloves such as neoprene.

EYE PROTECTION EQUIPMENT: Chemical splash goggles in compliance with OSHA regulations are advised, however, OSHA regulations also permit other types of safety glasses. (Consult your safety equipment supplier)

OTHER PROTECTION EQUIPMENT: Not required when used as directed.

WORK HYGIENIC PRACTICES: Wash hands thoroughly after use.

SECTION 9 PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: Colorless
ODOR: Ethereal
MELTING POINT: N/C
BOILING POINT: -26.5°C (-15.7°F) at 736 mmHg.
SOLUBILITY IN WATER: Nil
VAPOR PRESSURE: 4203 mm Hg (@ 70°F)
VAPOR DENSITY: <1 (Air = 1)
FORM: Liquefied Gas
PERCENT VOLATILES: 100 WT%
EVAP. RATE: >1 (ether = 1)
%VOC: N/A
SPECIFIC GRAVITY: 1.21
pH: N/C

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PERFECTDUSTER – HI-VELOCITY DUSTER

SECTION 10 STABILITY & REACTIVITY

STABILITY: Material is stable under normal use and storage. Avoid open flames and high temperatures, contact with hot(glowing) metal surfaces, etc.

INCOMPATIBILITY: Strong alkalines or alkaline earth metals - powdered Al, Zn, Be, etc., and strong oxidizers.

DECOMPOSITION: Can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrochloric and hydrofluoric acids - possibly carbonyl halides. May form toxic by-products such as carbon dioxides and carbon monoxides, various hydro carbons, etc.

POLYMERIZATION Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Information is based on available data on individual product components. Product as a whole has not been evaluated.

Studies on rats:

ORAL: Information not available
DERMAL: Information not available
INHALATION: 4 hr LC50 <500000ppm
EYE IRRITATION: May irritate and/or frostbite
SKIN IRRITATION: May irritate and/or frostbite

SECTION 12 ECOLOGICAL INFORMATION

INTRODUCTION: This environmental effects summary is written to assist in addressing emergencies created by an accidental spill which might occur during the shipment of this material, and, in general, is not meant to address discharges to sanitary sewers or publicly owned treatment works.

SUMMARY: Data for this material have been used to estimate its environmental impact. It has the following properties.

A high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to effect aquatic organisms, a low potential to persist in the environment, a low potential to bioconcentrate.

SECTION 13

DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Always use up product according to label directions before disposal. Remove to a permitted waste disposal facility. Comply with Federal, State, and local regulations. DO NOT PUNCTURE OR INCINERATE CONTAINER.

SECTION 14

TRANSPORT INFORMATION

	<u>Domestic (ground)</u>	<u>International (ground, air, water)</u>
SHIPPING NAME:	Consumer Commodity	Refrigerant gases, n.o.s. (1,1,1,2-Tetrafluoroethane)
HAZARDOUS CLASS:	ORM-D	2.2
UN NUMBER:	N/A	UN 1078
PACKAGING GROUP:	N/A	N/A
HAZARD LABEL:	N/A	Non-flammable gas

Note: For domestic shipments, outer boxes must be marked with designation Dot-E 10232 as well as shipping name, hazardous class (ORM-D 2.2) and UN number. Domestic shipments are exempt from labeling and shipping paper requirements except when transported by air.

SECTION: 15

REGULATORY INFORMATION

- OSHA: This document has been prepared in accordance with the MSDS requirement of the OSHA Hazard.
- TSCA: This product is listed on the TSCA inventory or otherwise complies with TSCA premanufacture notification requirements.
- NJ RIGHT-TO-KNOW: Effective August 24, 1984, employers are required to provide information to employees regarding chemical formulations to which they may be exposed in the course of their work, and which contain hazardous substances posing threat to health and/or safety. See section 2 for compilation.
- SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986: If your business resides in the state of California or if you supply this product directly or indirectly into California, the requirement in part, that "No person in the course of doing business shall knowingly and intentionally expose any individuals to chemicals known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individual..."The act does not exempt from the warning requirement" an exposure for which the person responsible can show the exposure poses no significant risk.." A.K.A. Proposition 65.
Based on available data, the following chemical(s) listed by the Governor of California may be present in this product.
Noted in section 2 in descending order.

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SECTION 15 (Cont'd)

SARAH 313 CHEMICAL NOTIFICATION: Any product that is repackaged or redistributed,
must send a similar notice:

If you are unsure whether you must report, or if you require additional information,
call EPA emergency Planning and Community Right-To-Know hotline
800) 535-0202.

SECTION 16 **OTHER INFORMATION**

Personal Protection rating to be supplied by user depending on use conditions.

SARA/TITLE III HAZARD CATEGORIES AND LISTS

<u>Product Hazard Categories</u>		<u>Lists</u>	
Chronic Health	No	Extremely Hazardous Substance	No
Acute Health	Yes	CERCLA Hazardous Substance	No
Fire Hazard	No	Toxic Chemicals	No
Pressure Hazard	Yes		
Reactivity Hazard	No		

DISCLAIMER

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