

SECTION I

GENERAL INFORMATION

Distributor's Name and Address:

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

PRODUCT: 105987-1 PR 105992-1 105885-1
106160-1 106173-1
106254-1 106296-1 106365-1

NFPA Hazard Rating

Health 1
Flammability 4
Reactivity 1
Special None

NFPA

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

HMIS Rating

Health 1
Flammability 3
Reactivity 1
Special None

HMIS

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Severe

EMERGENCY CONTACT: CHEMTREC (800) 424-9300

SECTION 2

COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL(S)	CAS #	% (optional)	OSHA PEL	ACGIH TLV	OTHER LIMITS
ETHANE, 1,1,1,2 -TETRAFLUORO-	811-97-2	30-70	1000 ppm	N/A	1000 ppm
DIMETHYL ETHER	115-10-6	30-70	1000 ppm	1000 ppm	N/A

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.**

MATERIAL SAFETY DATA SHEET
PERFECTDUSTER – ECODUSTER II
SECTION 3 (Cont'd)

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.

SECTION 5 **FIRE FIGHTING MEASURES**

FLASH POINT: -58°F (estimated)

METHOD USED: TOC

FIRE AND EXPLOSION HAZARDS

Cylinders are equipped with pressure and temperature relief devices but may rupture under fire conditions. Use water spray to cool cylinders and tanks.

EXTINGUISHING MEDIA

As appropriate for combustibles in area (water spray, water fog, dry chemical, carbon dioxide, "Alcohol" foam).

MATERIAL SAFETY DATA SHEET
PERFCTDUSTER – ECODUSTER II
SECTION 5 (Cont'd)

FLAMMABLE LIMITS IN AIR, % BY VOLUME: 3.9 LEL
16.9 UEL

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. If gas exiting containers ignites, stop flow of gas. DO NOT put out the fire unless leak can be stopped immediately.

FLAMMABILITY CLASSIFICATION: (NFPA) Level 1 Aerosol

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.

This material meets the generic definition of an ignitable substance under CERCLA. A release of 100 lbs. may trigger the reporting requirements of CERCLA Section 103.

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 under 120°F. Keep from freezing. Store out of direct sunlight. Prolonged exposure to direct sunlight or storage above 120°F may cause can to burst.

SAFETY PRECAUTIONS

Avoid breathing high concentrations of vapors and liquid contact with skin or eye. Use with sufficient 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.

MATERIAL SAFETY DATA SHEET
PERFECTDUSTER – ECODUSTER II

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERALLY APPLICABLE CONTROL MEASURES

Respiratory protection is not required when used as directed. Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low places.

PERSONAL PROTECTIVE EQUIPMENT

Lined butyl gloves and chemical splash, goggles should be used when handling liquid. Under normal manufacturing, conditions, no respiratory protection is required when using this product. Self-contained breathing apparatus (SCBA) is required if a large release occurs.

OTHER PROTECTION EQUIPMENT

Not required when used as directed.

WORK/HYGIENIC PRACTICES

General hygienic practices include washing of hands thoroughly with soap and water after use.

SECTION 9

PHYSICAL DATA AND CHEMICAL PROPERTIES

MELTING POINT:	N/A
BOILING POINT:	-130°F.
SOLUBILITY IN WATER:	N/A
VAPOR PRESSURE:	62.5 psi
VAPOR DENSITY:	2.4 (Air = 1.0)
ODOR:	Slight Ethereal
FORM:	Liquefied Gas
PERCENT VOLATILES:	100 WT%
COLOR:	Colorless
REPORTABLE VOC CONTENT:	70%
EVAPORATION RATE:	Immediate
pH:	N/A
SPECIFIC GRAVITY:	0.93 g/cc

SECTION 10

STABILITY & REACTIVITY

STABILITY

Material is stable.
Avoid open flames and high temperatures, contact with hot(glowing) metal surfaces, etc.

INCOMPATIBILITY

Alkali or alkaline earth metals - powdered Al, Zn, Be, etc.

DECOMPOSITION

Can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrochloric and hydrofluoric acids - possibly carbonyl halides, carbonyl fluoride.

POLYMERIZATION

Will not occur

SECTION 11

TOXICOLOGICAL INFORMATION

PRINCIPAL HEALTH HAZARDS

(including significant routes, effects symptoms of overexposure and medical conditions aggravated by exposure)

Inhalation of high concentrations of vapor is harmful and may cause heart irregularities, unconsciousness or death. Intentional misuse or deliberate inhalation may cause death without warning. Vapor reduces oxygen available for breathing and is heavier than air. Liquid contact can cause frostbite.

ANIMAL DATA:

Inhalation 4-hour LC 50: 164,000 ppm in rats

The compound is untested for skin and eye irritancy, and is untested for animal sensitization. Toxicity described in animals exposed by inhalation includes anesthetic effects, depression of arterial blood pressure, changes in blood cell counts, and weight gain suppression. Cardiac sensitization occurred in dogs exposed to concentrations of 20% and greater. Long-term exposure of rats to 20,000 ppm caused liver weight reduction and alterations of liver enzymes. In another study, observations include decreased red blood cell counts, spleen changes, and decreased survival of males at 10,000 and 25,000 ppm. Red blood cell destruction (hemolysis) occurred at 25,000 ppm.

Tests in animals demonstrate no carcinogenic or developmental toxicity. The compound does not produce genetic damage in bacterial cell cultures.

HUMAN HEALTH EFFECTS:

Skin contact with the liquid may cause freezing of the skin. Eye contact with the vapor may produce eye irritation with discomfort, tearing, or blurring of vision. Overexposure by inhalation to the vapors may cause nonspecific discomfort, such as nausea, headache, or weakness. Higher exposures to the vapors may cause temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness; or increased susceptibility to the cardiac arrhythmic effects of epinephrine.

Individuals with preexisting diseases of the central nervous or cardiovascular system may have increased susceptibility to the toxicity of excessive exposures.

CARCINOGENICITY

None of the components in this material is listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

APPLICABLE EXPOSURE LIMITS

DIMETHYL ETHER	
ETHANE 1,1,1,2- TETRAFLUORO	
AEL (Du Pont)	1000 ppm (8 hr. TWA)
TLV (ACGIH)	None Established
PEL (OSHA)	None Established

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.

This material may be a RCRA regulated hazardous waste upon disposal due to the ignitability characteristic.

DO NOT PUNCTURE OR INCINERATE CONTAINER.

SECTION 14

TRANSPORT INFORMATION

DOT (172.101 / 173.306)

DOT/IMO (172.102)

PROPER SHIPPING NAME

Consumer Commodity

PROPER SHIPPING NAME

Compressed Gases

Flammable, N.O.S.

HAZARD CLASS

ORM-D

HAZARD CLASS

2.1

UN NO.

N/A

UN NO.

1954

DOT/IMO LABEL

Flammable Gas

IMDG Code

Page 2124

NOTE: For domestic shipments, outer boxes must be marked with shipping name and hazard class. Domestic shipments are exempt from labeling and shipping paper requirements except when transported by air.

SECTION 15

REGULATORY INFORMATION

OSHA: This product is considered hazardous based on the criteria listed in the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200

TSCA: All chemical components are listed in the TSCA inventory.

NJ RIGHT TO KNOW: In addition to the hazardous components listed in Section 2, this product contains the following components in a quantity sufficient to require identification:

No other components

SECTION 16

OTHER INFORMATION

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

SARA/TITLE III HAZARD CATEGORIES AND LISTS

Product Hazard Categories

Lists

Chronic Health	No	Extremely Hazardous Substance	No
Acute Health	Yes	CERCLA Hazardous Substance	Yes
Fire Hazard	Yes	Toxic Chemicals	No
Pressure Hazard	Yes		
Reactivity Hazard	No		

DISCLAIMER

PERFECTDATA expressly disclaims all express or implied warranties for merchantability and fitness for a particular purpose, with respect to the product or information provided herein.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, **PERFECTDATA** makes no representations as to its accuracy or sufficiency. Conditions of use are beyond **PERFECTDATA**'s control and therefore users are responsible to verify this data under their own operation conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling and disposal of the product, or from the publication, or use of, or reliance upon, information contained herein. This information relates only to the product designated here and does not relate to its use in combination with any other material or in any other process.