



# Material Safety Data Sheet

# ADVANTUS<sup>®</sup>

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3507, 3508, 3509, 3522

## SECTION 1: PRODUCT IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT (TRADE) NAME: PC Duster 2, OfficeDuster 3, OfficeDuster Jr.  
PRODUCT IDENTIFICATION NUMBER(S): RR3507, RR3508, RR3509, RR3522  
-  
CHEMICAL NAME AND SYNONYMS: 1,1,1,2 - Tetrafluoroethane  
CHEMICAL FORMULA: CF<sub>3</sub>CH<sub>2</sub>F  
EMERGENCY TELEPHONE NUMBERS: Read/Right: (904) 482-0091  
CHEMTREC (Transportation): (800) 424-9300

## SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>CAS#</u>	<u>%</u>	<u>OSHA PEL (ppm)</u>	<u>ACGIH TLV (ppm)</u>
1,1,1,2 tetrafluoroethane	811-97-2	100	NA	NA

Manufacturer recommends an 8 hour TWA of 1000ppm.

## SECTION 3: HAZARDS IDENTIFICATION

Product is under pressure. Do not puncture or incinerate. Avoid exposure to temperatures above 120°F or open flame. Excessive inhalation of vapors may be fatal. Vapors reduce available oxygen in air. Reduced oxygen levels to 12-14% produce symptoms of asphyxiation i.e. drowsiness, loss of coordination, increased pulse rate, narcosis, cardiac sensitization and deeper respiration. Material can induce cardiac sensitization to epinephrine and cardiac arrhythmia. Skin irritant. Direct exposure of skin to liquid may cause frostbite. Eye irritant.

Carcinogenicity (OSHA/NTP/IARC/ACGIH): Not Listed  
Medical Conditions Aggravated by Exposure: Anemia, asthma, dermal sensitivity and low blood pressure.

## SECTION 4: FIRST AID INFORMATION

EYE CONTACT: Flush with water for 15 minutes, including under eyelids. Get Medical help.  
SKIN CONTACT: Flush with water. Treat for frostbite if necessary by bathing area with lukewarm water. Get medical attention.  
INHALATION: Remove to fresh air. Keep at rest. Restore and/or support breathing as needed. Get prompt Medical attention.  
INGESTION: Ingestion is not considered a potential route of exposure.

## SECTION 5: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TCC): NA  
FLAMMABLE LIMITS (% BY VOLUME): LEL: NA UEL: NA  
AUTOIGNITION TEMPERATURE °F (°C): NA

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical or foam. Water may be used to cool containers exposed to the fire to reduce pressure buildup.

UNUSUAL FIRE OR EXPLOSION HAZARDS: Cylinders are under pressure and may rupture under fire conditions. Decomposition may produce hydrochloric and hydrofluoric acid. Exposure to heat or prolonged exposure to sun may cause bursting

NFPA RATING: HEALTH (1)  
FLAMMABILITY (0)  
REACTIVITY (0)

NA = Not Available

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

Ventilate area, especially low places where heavy vapors may collect. Remove open flames. Isolate hazard until all gas has dispersed. Water spray may be used to reduce vapors

#### **SECTION 7: HANDLING AND STORAGE**

Store in a clean, cool, ventilated area away from sources of ignition and oxidizing agents. Maintain temperature at less than 120°F. Store as a Level 1 Aerosol (NFPA 30B). Over heating, pressurizing, or rusting can cause can to burst resulting in serious personal injury. Empty containers retain residue; follow all label warnings even after container is empty. Dispose of empty container according to regulations. Do not reuse the container

#### **SECTION 8: EXPOSURE CONTROL - PERSONAL PROTECTION**

Normal ventilation for standard procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low places. Avoid inhalation of vapors and repeated or prolonged contact of liquid with skin or clothing. Do not take internally. Lined nitrile or natural rubber gloves and chemical splash goggles should be worn when handling liquid. Under normal use of this product, no respiratory protection is required. Self-contained breathing apparatus is required if a large release occurs.

#### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

BOILING POINT (°F(°C):	-15.7(-26)	% VOLATILE BY VOLUME @ 25°C:	100
VAPOR PRESSURE (psig @ 70°F):	70	EVAPORATION RATE (BUTYL ACETATE = 1):	Product is Gas
VAPOR DENSITY (AIR = 1):	4.34	FORM:	Liquified Gas
% SOLUBLE IN WATER:	Negigible	ODOR:	ETHEREAL
SPECIFIC GRAVITY (G/CC @ 25°C):	1.21	APPEARANCE:	CLEAR

#### **SECTION 10: STABILITY AND REACTIVITY**

STABILITY:	Stable unless exposed to open flames or high temperatures.
HAZARDOUS POLYMERIZATION:	Will not occur under normal conditions of use.
INCOMPATIBILITIES/CONDITIONS TO AVOID:	Incompatible with strong oxidizing agents, chlorine, and chemically active metals, such as: Alkali or alkaline earth metals-powdered Al, Zn, etc.
HAZARDOUS DECOMPOSITION PRODUCTS:	Can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming, hydrofluoric acid, and possibly carbonyl halides.

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

Not Available

#### **SECTION 12: ECOLOGICAL INFORMATION**

Not Available

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

Follow Federal, State and Local regulations.

**SECTION 14: TRANSPORT INFORMATION**

**DOT CLASSIFICATION:**

Proper Shipping Name:	Consumer Commodity
Hazard Class:	ORM-D
UN Number:	Does not apply
Packing Group:	Does not apply
Hazard Labeling:	ORM, ORM-D-Air

**IATA/ICAO CLASSIFICATION:**

Proper Shipping Name:	Consumer Commodity
Hazard Class:	Class 9, Miscellaneous
UN Number:	ID#8000
Packing Group:	Does not apply
Hazard Labeling:	Class 9, Miscellaneous

**IMDG CLASSIFICATION:**

Proper Shipping Name:	1,1,1,2 - Tetrafluoroethane
UN Number:	UN3159
Hazard Class:	Class 2.2, Nonflammable Gas
IMDG Page#:	2181
Packing Group:	Does not apply
Flash Point (°C):	None
Marine Pollutant:	No

**SECTION 15: REGULATORY INFORMATION**

**SARA TITLE III REPORTING:**

Toxic Chemical(Section 313):	Not listed
Extremely Hazardous Substance (Section 302, 304, 311,312):	Not Listed
Hazard Class:	Chronic Health No
	Acute Health Yes
	Fire Hazard No
	Pressure Hazard Yes
	Reactivity Hazard No

**TSCA INVENTORY STATUS:**

Listed in the TSCA  
inventory

**SECTION 16: OTHER INFORMATION**

The information provided herein is compiled from internal reports and data from professional publication. It is furnished without warranty of any kind, expressed or implied. It is intended solely to assist in evaluating suitability and proper use of the material and in implementing safety precautions and procedures. Employers should use this information as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials. All information used must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.