

**ReadRight DustFree Duster, DustFree
Multi-Purpose Duster, Duster, DustFree
Multi-Purpose**

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SECTION 1. IDENTIFICATION

Product identifier used on the label

: **ReadRight DustFree Duster, DustFree Multi-Purpose Duster,
Duster, DustFree Multi-Purpose**

Other means of identification : RR3700, RR3722, RR3760

Recommended use of the chemical and restrictions on use

: Spray duster
Recommended restrictions: Any use involving skin/body contact; inhaling fumes;
contact with fire/flames

Chemical family

: Gas

**Name, address, and telephone number
of the supplier:**

Advantus Corporation

12276 San Jose Blvd.
Bldg 618
Jacksonville, FL, USA
32223

Supplier's Telephone # : (904) 482-0091

24 Hr. Emergency Tel # : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887
(Outside U.S.).

**Name, address, and telephone number of
the manufacturer:**

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear, colourless Gas

This product is packaged and sold as a consumer product. The below WHMIS 2015 and US OSHA Hazcom 2012 classification and labeling information, is being provided for informational purposes.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Flammable gas -Category 1

Gas Under Pressure -Liquefied gas

Label elements

Hazard pictogram(s)



Signal Word

DANGER!

Hazard statement(s)

Extremely flammable gas
Contains gas under pressure; may explode if heated.

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Precautionary statement(s)

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Leaking gas fire: do not extinguish, unless leak can be stopped safely.
Eliminate ignition sources if safe to do so.

Protect from sunlight and store in well-ventilated place.

Other hazards

Other hazards which do not result in classification:

Simple asphyxiant - this product does not contain oxygen and may cause asphyxia in confined spaces. If product is sprayed directly onto the skin or into the eyes, symptoms of frostbite may be experienced.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
1,1-Difluoroethane	Difluoroethane (R152a)	75-37-6	80.0 - 100.0

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

Ingestion : Not an expected route of entry.

Inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration.

Skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.

Eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Flush eyes with water for at least 15 minutes. If eye irritation persists: get medical advice/attention.

Most important symptoms and effects, both acute and delayed

: Harmful if inhaled. Oxygen content in the area must not fall below 19.5% or harmful effects will result. In extremely high concentrations, product may act as an asphyxiant and cause increased breathing and pulse rates, fatigue and unconsciousness. As asphyxiation progresses, nausea, vomiting, prostration and loss of consciousness may result, eventually leading to convulsions, coma and death. Contact with liquid or refrigerated gas can cause cold burns and frostbite. Symptoms of frostbite may include numbness, pricking and itching. Symptoms of more severe frostbite include a burning sensation, stiffness of the affected area, blistering, tissue death and gangrene.

Indication of any immediate medical attention and special treatment needed

: Provide general supportive measures and treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

: Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

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Unsuitable extinguishing media

- : None known.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Contains gas under pressure; may explode if heated. Extremely flammable gas
Closed containers are contained under pressure and may explode if exposed to
excess heat for a prolonged period of time. Can readily form explosive mixtures with
air at room temperature. Product is a simple asphyxiant. Asphyxiant, can replace
oxygen in confined area. May displace oxygen in breathing air and lead to suffocation
and death, particularly in confined spaces.

Flammability classification (OSHA 29 CFR 1910.106)

- : Flammable gas -Category 1

Hazardous combustion products

- : Carbon oxides ;Halogenated compounds ;Carbonyl halides

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters should wear proper protective equipment and self-contained breathing
apparatus with full face piece operated in positive pressure mode. Do not enter without
wearing specialized protective equipment suitable for the situation. Firefighter's normal
protective clothing (Bunker Gear) will not provide adequate protection. A full-body
encapsulating chemical protective suit with positive pressure self-contained breathing
apparatus (NIOSH approved or equivalent) may be necessary.

Special fire-fighting procedures

- : Evacuate personnel to safe areas. Avoid inhaling gas. If feasible, stop the flow of gas.
Move containers from fire area if safe to do so. Shield personnel to protect from
venting or rupturing containers. Cool closed containers exposed to fire with water
spray. Stay away from ends of cylinders and withdraw immediately in case of rising
sounds or discolouration of containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Restrict access to area until completion of clean-up. Keep all other personnel upwind
and away from the spill/release. Ensure clean-up is conducted by trained personnel
only. All persons dealing with clean-up should wear the appropriate protective
equipment including self-contained breathing apparatus. Refer to Section 8,
EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information
on acceptable personal protective equipment.

Environmental precautions : Ensure spilled product does not enter confined areas.

Methods and material for containment and cleaning up

- : Ventilate area of release. Do not enter confined spaces unless adequately ventilated.
Eliminate all ignition sources. Leaks in lines to equipment set-ups can be identified by
painting suspected sites with soapy water. Leaks can be located by bubble formation.
Stop spill or leak at source if safely possible. If leak cannot be stopped, move cylinders
to an open space. Isolate the area until all gas has dispersed. Notify the appropriate
authorities as required.

Special spill response procedures

- : . If a spill/release in excess of the EPA reportable quantity is made into the
environment, immediately notify the national response center in the United States
(phone: 1-800-424-8802).
US CERCLA Reportable quantity (RQ): None reported.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

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: Before handling, it is very important that engineering controls are operating, and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Oxygen content in the area must not fall below 19.5% or harmful effects will result.
 Use only in well-ventilated areas. Avoid inhaling gas. Keep away from extreme heat and flame. Keep away from incompatibles. Protect cylinders from damage. Never attempt to lift cylinder by its cap. Open valves slowly to prevent rapid decompression. Shut flow off at cylinder valve and not just at the regulator after use. Do not puncture or incinerate containers.

Conditions for safe storage : Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Store in a cool, dry, well ventilated area, away from heat and ignition sources. Avoid storage of cylinders for more than six months. Do not store in direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

Incompatible materials : Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limits:</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
	1,1-Difluoroethane	N/Av	N/Av	N/Av

Exposure controls

Ventilation and engineering measures

: Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapours below their respective threshold limit value. Recommended monitoring procedures: Provide sufficient air exchange and/or exhaust in work rooms. Oxygen content in the area must not fall below 19.5% or harmful effects will result.

Respiratory protection : Not required under normal conditions of handling.

Skin protection : Not required under normal conditions of handling.

Eye / face protection : Not required under normal conditions of handling.

Other protective equipment : An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

General hygiene considerations

: Avoid inhaling gas. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : colourless gas
Odour : Slight ethereal odour
Odour threshold : N/Av
pH : N/Av
Melting Point/Freezing point : N/Av
Initial boiling point and boiling range
 : - 25°C (-13°F)
Flash point : < -50°C (<-58°F)

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Flashpoint (Method) : N/Ap
Evaporation rate (BuAe = 1) : N/Ap
Flammability (solid, gas) : Flammable gas -Category 1
Lower flammable limit (% by vol.)
: 3.9 %
Upper flammable limit (% by vol.)
: 16.9 %
Oxidizing properties : None known.
Explosive properties : Not explosive.
Vapour pressure : N/Av
Vapour density : N/Av
Relative density / Specific gravity
: N/Ap
Solubility in water : Insoluble or very slightly soluble in water.
Other solubility(ies) : N/Av
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution
: N/Av
Auto-ignition temperature : 454°C (849°F)
Decomposition temperature : N/Ap
Viscosity : N/Av
Volatiles (% by weight) : N/Ap
Volatile organic Compounds (VOC's)
: N/Ap
Absolute pressure of container
: N/Av
Flame projection length : N/Ap
Other physical/chemical comments
: No additional information.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions
: No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid : High temperatures. Ensure adequate ventilation, especially in confined areas.
Incompatible materials : Strong oxidizing agents.
Hazardous decomposition products
: None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES
Routes of entry skin & eye : YES
Routes of entry Ingestion : NO

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Routes of exposure skin absorption

: NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

: In extremely high concentrations, product may act as an asphyxiant and cause increased breathing and pulse rates, fatigue and unconsciousness. As asphyxiation progresses, nausea, vomiting, prostration and loss of consciousness may result, eventually leading to convulsions, coma and death.

Sign and symptoms ingestion

: Not an expected route of entry under normal conditions of use. (gas)

Sign and symptoms skin

: None expected, when used as intended. Contact with liquid or refrigerated gas can cause cold burns and frostbite. Symptoms of frostbite may include numbness, prickling and itching. Symptoms of more severe frostbite include a burning sensation, stiffness of the affected area, blistering, tissue death and gangrene.

Sign and symptoms eyes

: None expected, when used as intended. Spraying directly into the eyes may cause frostbite, damage to the cornea resulting in permanent eye injury. Symptoms of frostbite may include numbness, prickling and itching.

Potential Chronic Health Effects

: None reported.

Mutagenicity

: Not expected to be mutagenic in humans.

Carcinogenicity

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity

: Not expected to have other reproductive effects.

Sensitization to material

: Not expected to be a skin or respiratory sensitizer.

Specific target organ effects

: The substance or mixture is not classified as specific target organ toxicant, single exposure.
 The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Medical conditions aggravated by overexposure

: Pre-existing skin, eye and respiratory disorders.

Synergistic materials

: No information available.

Toxicological data

: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC₅₀(4hr)</u>	<u>LD₅₀</u>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
1,1-Difluoroethane	N/Av	N/Av	N/Av

Other important toxicological hazards

: None known.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

: No information available. Measured ecotoxicity data are not available for the aquatic toxicity endpoints for these gases. These chemicals are gases at standard temperature and pressure and are expected to partition primarily to air, therefore aquatic toxicity tests may not be relevant.

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Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
1,1-Difluoroethane	75-37-6	N/Av	N/Av	N/Av

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
1,1-Difluoroethane	75-37-6	N/Av	N/Av	N/Av

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
1,1-Difluoroethane	75-37-6	N/Av	N/Av	N/Av

Persistence and degradability

: No information available.

Bioaccumulation potential

: No information available.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
1,1-Difluoroethane (CAS 75-37-6)	N/Av	N/Av

Mobility in soil : No information available.

Other Adverse Environmental effects

: No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal

: Handle in accordance with good industrial hygiene and safety practice. See Section 7 (Handling and Storage) for further details. Allow to safely dissipate into atmosphere. Do not puncture or incinerate containers.

Methods of Disposal

: Return to vendor with cylinder valve tightly closed and valve cap in place. Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

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SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN1030	1,1-DIFLUOROETHANE	2.1	none	
TDG Additional information	Consult the TDG regulations for exceptions.				
49CFR/DOT	UN1030	1,1-Difluoroethane	2.1	none	
49CFR/DOT Additional information	Limited Quantity exemption may be used if shipped in containers of 0.120 Litres or less, per section 173.306 of 49 CFR.				
ICAO/IATA	UN1030	1,1-Difluoroethane	2.1	none	
ICAO/IATA Additional information	Refer to ICAO/IATA Packing Instruction				
IMDG	UN1030	1, 1-DIFLUOROETHANE; or REFRIGERANT GAS R 152a	2.1	none	
IMDG Additional information	Consult the IMDG regulations for exceptions.				

Special precautions for user : Keep away from heat and open flames. - No smoking. Appropriate advice on safety must accompany the package.

Environmental hazards : This substance does not meet the criteria for an environmentally hazardous substance according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: This information is not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity (RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
1,1-Difluoroethane	75-37-6	Yes	N/Ap	N/Av	No	N/Ap

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SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Physical hazards (Flammable gas ;Gas Under Pressure). Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
1,1-Difluoroethane	75-37-6	No	N/Ap	No	Yes	No	Yes	No	No

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
1,1-Difluoroethane	75-37-6	200-866-1	Present	Present	(2)-86	KE-10545	Present	HSR000994

SECTION 16. OTHER INFORMATION

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists
 AICS: Australian Inventory of Chemical Substances
 CA: California
 CAS: Chemical Abstract Services
 CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
 CFR: Code of Federal Regulations
 DOT: Department of Transportation
 EC50: Effective Concentration 50%
 EINECS: European Inventory of Existing Commercial chemical Substances
 ENCS: Existing and New Chemical Substances
 EPA: Environmental Protection Agency
 HSDB: Hazardous Substances Data Bank
 IARC: International Agency for Research on Cancer
 IECSC: Inventory of Existing Chemical Substances
 Inh: Inhalation
 IOC: Inventory of Chemicals
 KECI: Korean Existing Chemicals Inventory
 KECL: Korean Existing Chemicals List
 LC: Lethal Concentration
 LD: Lethal Dose
 MA: Massachusetts

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MN: Minnesota
N/Ap: Not Applicable
N/Av: Not Available
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RQ: Reportable Quantity
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
SCBA: Self-Contained Breathing Apparatus
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2018.
2. International Agency for Research on Cancer Monographs, searched 2019.
3. Canadian Centre for Occupational Health and Safety, CCHInfoWeb databases, 2019 (Chempendium, HSDB and RTECs).
4. Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists - June 2019 version.
6. California Proposition 65 List - September 2019 version.
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2019.

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Other special considerations for handling

: Provide adequate information, instruction and training for operators.

<p><u>Prepared for:</u> Advantus Corporation 12276 San Jose Blvd, Ste. 618 Jacksonville, FL 32223 Telephone: (904) 482-0091</p>	
<p><u>Prepared by:</u> ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.); (888) 977-4834 (Canada) http://www.thecompliancecenter.com</p>	

DISCLAIMER

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