

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/12/2022

Reviewed on 08/12/2022

1 Identification

- **Product Identifier**
- **Trade Name:** 152A DUSTER 10 OZ.
- **Product Number:** 1001-12
- **EC number:**
200-866-1
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Aerosol Duster
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Kleen Concepts
8388 E. Hartford Drive
Suite 105
Scottsdale, AZ 85255
P: 480-515-5576
www.kleen-concepts.com
- **Emergency telephone number:** 480-518-2323

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Flame

Flammable Aerosols 2

H223 Flammable aerosol.



Gas cylinder

Gases under Pressure - Liquefied gas H280 Contains gas under pressure; may explode if heated.

Simple Asphyxiant

May displace oxygen and cause rapid suffocation.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Warning
- **Hazard-determining components of labeling:**
1,1- Difluoroethane (R-152a)
- **Hazard statements:**
H223 Flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.
- **Precautionary statements:**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P410+P403 Protect from sunlight. Store in a well-ventilated place.

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P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

· **Unknown acute toxicity:**

This value refers to knowledge of known, established toxicological or ecotoxicological values.

0 % of the mixture consists of component(s) of unknown toxicity.

· **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	4	Fire = 4
REACTIVITY	3	Physical Hazard = 3

· **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

· **Chemical characterization: Substance**

· **CAS No. Description**

1,1- Difluoroethane (R-152a) 100% 75-37-6

· **Identification number(s)**

· **EC number:** 200-866-1

4 First-Aid Measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.

· **After inhalation:**

Get medical attention immediately.

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in the side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

Have eyes examined and tested by medical personnel.

If eye irritation occurs, consult a doctor.

· **After swallowing:** If swallowed and symptoms occur, consult a doctor.

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- **Information for doctor**

- **Most important symptoms and effects, both acute and delayed:**

Symptoms/injuries : Contains refrigerated gas; may cause cryogenic burns or injury. Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/injuries after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Dizziness. Slight irritation. Headache. Nausea. Vomiting. Coordination disorders. Disturbances of consciousness. Disturbances of heart rate.

Symptoms/injuries after skin contact : Frostbites.

- **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture:**

Contents extremely flammable and under pressure. In a fire or if heated, a pressure increase will occur which may result in container bursting. Vapors heavier than air may spread along the ground and travel to an ignition source.

- **Advice for firefighters**

- **Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation.

Nonsparking tools should be used.

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:** Inform authorities in case of gas release.

- **Methods and material for containment and cleaning up:**

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

Dispose of the collected material according to regulations.

- **Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- **PAC-1:**

10,000 ppm

- **PAC-2:**

15,000 ppm

- **PAC-3:**

25,000 ppm

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7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
Keep protective respiratory device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Do not gas tight seal receptacle.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
- **Additional information:**
Engineering Controls (Ventilation etc.): Use process enclosures, local exhaust ventilation, or other engineering controls if required to control airborne levels below exposure limits.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- **Breathing equipment:**



NIOSH/OSHA approved breathing apparatus.

- **Protection of hands:**



Protective gloves

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- **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material:**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:**



Protective work clothing

- **Limitation and supervision of exposure into the environment:** None

9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Aerosol

Color:

Colorless

- **Odor:**

Odorless

- **Odor threshold:**

Not determined.

- **pH-value:**

Not determined.

- **Change in condition**

Melting point/Melting range:

-117 °C (-178.6 °F)

- **Flash point:**

-81 °C (-113.8 °F)

- **Flammability (solid, gaseous):**

Not determined.

- **Ignition temperature:**

Not applicable

- **Decomposition temperature:**

Not determined.

- **Auto igniting:**

Not determined.

- **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

Lower:

4.9 Vol %

Upper:

20.2 Vol %

- **Vapor pressure @ 20 °C (68 °F):**

5,100 hPa (3.800 mm Hg)

- **Density @ 20 °C (68 °F):**

 1.004 g/cm³ (8.3784 lbs/gal)

- **Relative density:**

Not determined.

- **Vapor density:**

Not determined.

- **Evaporation rate:**

Not applicable.

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- **Solubility in / Miscibility with:**

Water @ 20 °C (68 °F): 5 g/l

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

VOC content: 0.00 %

Solids content: 0.0 %

- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** Extremely flammable aerosol. Pressurised container: May burst if heated.

- **Chemical stability:** Product is stable under normal conditions.

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Possibility of hazardous reactions:** No dangerous reactions known.

- **Conditions to avoid:**

Avoid all sources of ignition: heat, sparks and open flames.

High pressure, static electricity.

Heat, flame and ignition sources.

- **Incompatible materials:**

Strong acids

Strong bases

- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

1,1- Difluoroethane (R-152a)

Inhalative LC50/4 h 977 mg/l (Mouse)

- **Primary irritant effect:**

- **On the skin:** No irritating effect.

- **On the eye:** No irritating effect.

- **Additional toxicological information:**

- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

Substance is not listed.

- **NTP (National Toxicology Program):**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

Substance is not listed.

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12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

* 14 Transport Information

- **UN-Number:**
- **DOT** UN1030
- **ADR/ADN, IMDG, IATA** UN1950
- **UN proper shipping name:**
- **DOT** 1,1-Difluoroethane
- **ADR/ADN** UN1950 AEROSOLS
- **IMDG, IATA** AEROSOLS
- **Transport hazard class(es):**

- **DOT**



- **Class:** 2 Gases
- **Label:** 2.1

- **ADR/ADN**



- **Class:** 2 5A Gases

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 · **Label:** 2.1

 · **IMDG**

 · **Class:** 2.1 Gases

 · **Label:** 2.1

 · **IATA**

 · **Class:** 2 Gases

 · **Label:** 2.1

 · **Packing group:**

 · **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material

 · **Environmental hazards:** Not applicable.

 · **Special precautions for user:** Warning: Gases

 · **Hazard identification number (Kemler code):** -

 · **EMS Number:** F-D,S-U

 · **Stowage Code** SW1 Protected from sources of heat.
 SW22 For AEROSOLS with a maximum capacity of 1 litre:
 Category A. For AEROSOLS with a capacity above 1 litre:
 Category B. For WASTE AEROSOLS: Category C, Clear of
 living quarters.

 · **Segregation Code** SG69 For AEROSOLS with a maximum capacity of 1 litre:
 Segregation as for class 9. Stow "separated from" class 1
 except for division 1.4.
 For AEROSOLS with a capacity above 1 litre:
 Segregation as for the appropriate subdivision of class 2.
 For WASTE AEROSOLS:
 Segregation as for the appropriate subdivision of class 2.

 · **Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code:**

Not applicable.

 · **Transport/Additional information:**

 · **DOT**

 · **Quantity limitations:**

On passenger aircraft/rail: Forbidden

On cargo aircraft only: 150 kg

 · **Remarks:**

 Special precautions: DOT-SP 11516: In accordance with this
 special permit, this product is not subject to labeling
 requirements unless offered for transportation by air. This
 product is not subject to placarding requirements. Outside
 packaging must be marked with proper shipping description
 and "DOT-SP 11516".

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· ADR/ADN
· Excepted quantities (EQ):

Code: E0

Not permitted as Excepted Quantity

· IMDG
· Limited quantities (LQ):

1L

· Excepted quantities (EQ):

Code: E0

Not permitted as Excepted Quantity

· UN "Model Regulation":

UN 1950 AEROSOLS, 2.1

15 Regulatory Information

· Safety, health and environmental regulations/legislation specific for the substance or mixture:

No further relevant information available.

· SARA (Superfund Amendments and Reauthorization):
· Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

ACTIVE

· Hazardous Air Pollutants

Substance is not listed.

· California Proposition 65:
· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· New Jersey Right-to-Know List:

Substance is listed.

· New Jersey Special Hazardous Substance List:

F4

· Pennsylvania Right-to-Know List:

Substance is not listed.

· Pennsylvania Special Hazardous Substance List:

Substance is not listed.

· Carcinogenic categories:
· EPA (Environmental Protection Agency):

Substance is not listed.

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· **TLV (Threshold Limit Value established by ACGIH):**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

Substance is not listed.

· **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



· **Signal word:** Warning

· **Hazard-determining components of labeling:**

1,1- Difluoroethane (R-152a)

· **Hazard statements:**

H223 Flammable aerosol.

H280 Contains gas under pressure; may explode if heated.

May displace oxygen and cause rapid suffocation.

· **Precautionary statements:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Pressurized container: Do not pierce or burn, even after use.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

· **National regulations:**

Non-Regulated Material

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

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PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable Aerosols 2: Aerosols – Category 2

Gases under Pressure - Liquefied gas: Gases under pressure – Liquefied gas

· *** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106