2. Hazard(s) identification

Physical hazards
- Flammable aerosols
  - Category 1
- Gases under pressure
  - Liquefied gas

Health hazards
- Not classified.

Environmental hazards
- Not classified.

OSHA defined hazards
- Not classified.

Label elements
- Signal word: Danger

Hazard statement
- Extremely flammable aerosol. Contains gas under pressure; may explode if heated.

Precautionary statement
- Prevention
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not apply while equipment is energized. Pressurized container: Do not pierce or burn, even after use. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying.
- Response
  - Wash hands after handling.
- Storage
  - Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.
Disposal
Dispose of contents/container in accordance with local/regional/national regulations.

Hazard(s) not otherwise classified (HNOC)
Deliberately inhaling this product can lead to death from asphyxiation depending on concentration and duration of exposure.

3. Composition/information on ingredients

Mixtures
Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact
Rinse with water. Get medical attention if irritation develops and persists.

Ingestion
If swallowed, observe for signs of stomach discomfort or nausea. If symptoms persist, seek medical help. Do not induce vomiting. If there is any suspicion of aspiration into lungs, obtain immediate medical attention.

Most important symptoms/effects, acute and delayed
Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed
General information
Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire-fighting equipment/instructions
In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.

General fire hazards
Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures
7. Handling and storage

Precautions for safe handling
Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Deliberate misuse by concentrating and inhaling the contents is illegal and can be harmful of fatal. Inhalation abuse can cause death. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits
US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1-Difluoroethane (CAS 75-37-6)</td>
<td>TWA</td>
<td>2700 mg/m3</td>
</tr>
</tbody>
</table>

1000 ppm

Biological limit values
No biological exposure limits noted for the ingredient(s).

Appropriate engineering
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates controls should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. **Individual protection measures, such as personal protective equipment**

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection
Wear protective gloves such as: Insulated rubber.

Other
Wear suitable protective clothing.

Respiratory protection
If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance
**Physical state**  
Liquid.

**Form**  
Aerosol.

**Color**  
Clear.

**Odor**  
Mild petroleum.

**Odor threshold**  
Not available.

**pH**  
Not available.

**Melting point/freezing point**  
Not available.

**Initial boiling point and boiling range**  
-13 °F (-25 °C)

**Flash point**  
-58 °F (-50 °C) Cleveland Open Cup

**Evaporation rate**  
Fast.

**Flammability (solid, gas)**  
Not available.

**Upper/lower flammability or explosive limits**

<table>
<thead>
<tr>
<th>Flammability limit</th>
<th>lower (%)</th>
<th>upper (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9 %</td>
<td></td>
<td>16.9 %</td>
</tr>
</tbody>
</table>

**Vapor pressure**  
7841.6 hPa estimated

**Vapor density**  
2.4 (air = 1)

**Relative density**  
0.91 estimated

**Solubility (water)**  
0.28 % @ 70 °F

**Partition coefficient**  
Not available.

**Auto-ignition temperature**  
849 °F (453.9 °C)

**Decomposition temperature**  
Not available.

**Viscosity**  
Not available.

**Percent volatile**  
100 % estimated

### 10. Stability and reactivity

**Reactivity**  
The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability**  
Material is stable under normal conditions.

**Possibility of hazardous reactions**  
No dangerous reaction known under conditions of normal use.

**Conditions to avoid**  
Heat, flames and sparks. Contact with incompatible materials.

**Incompatible materials**  
Alkali metals. Alkaline earth metals. Powdered metal.

**Hazardous decomposition products**  

### 11. Toxicological information

**Information on likely routes of exposure**

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Prolonged inhalation may be harmful.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Prolonged skin contact may cause temporary irritation.</td>
</tr>
</tbody>
</table>
Eye contact
Direct contact with eyes may cause temporary irritation.

Ingestion
Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics
Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity
Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Skin corrosion/irritation
Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation
Direct contact with eyes may cause temporary irritation.

Respiratory sensitization
Not a respiratory sensitizer.

Skin sensitization
This product is not expected to cause skin sensitization.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity
Not classified.

Aspiration hazard
Not expected to be an aspiration hazard.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential
No data available.

Partition coefficient n-octanol / water (log Kow)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Log Kow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1-Difluoroethane</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Mobility in soil
No data available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products
This product, as packaged, is a RCRA hazardous waste for flammability with a waste code of D001. The dispersed product is not a RCRA hazardous waste (See 40 CFR Part 261.20 - 261.33). Empty container can be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

Hazardous waste code
D001: Waste Flammable material with a flash point <140 F

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1030</th>
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<tbody>
<tr>
<td>UN proper shipping name</td>
<td>1,1-Difluoroethane or Refrigerant gas R 152a</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>2.1</td>
</tr>
</tbody>
</table>

| Class | 2.1 |
| Subsidiary risk | - |
| Label(s) | 2.1 |
| Packing group | Not applicable. |
Special precautions for user 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’.

Read safety instructions, SDS and emergency procedures before handling.

**Special provisions**

T50, 11516

**Packaging exceptions**

306

**Packaging non bulk**

304

**Packaging bulk**

314, 315

**IATA**

**UN number**

UN1030

**UN proper shipping name**

1,1-Difluoroethane

**Transport hazard class(es)**

- Class 2.1
- Subsidiary risk -
- Packing group Not applicable.
- Environmental hazards No.
- ERG Code 10L

**Special precautions for user**

Read safety instructions, SDS and emergency procedures before handling.

**Other information**

- Passenger and cargo aircraft Forbidden
- Cargo aircraft only Allowed.

**IMDG**

**UN number**

UN1950

**UN proper shipping name**

AEROSOLS, LIMITED QUANTITY

**Transport hazard class(es)**

- Class 2
- Subsidiary risk -
- Packing group Not applicable.
- Environmental hazards No.
- Marine pollutant No.
- EmS Not available.

**Special precautions for user**

Read safety instructions, SDS and emergency procedures before handling.

## 15. Regulatory information

**US federal regulations**

This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

- TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
  - Not regulated.
- US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
  - Not listed.
- SARA 304 Emergency release notification
  - Not regulated.
- US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance
  - Not listed.
- CERCLA Hazardous Substance List (40 CFR 302.4)
  - Not listed.
- CERCLA Hazardous Substances: Reportable quantity
  - Not listed.
Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) 1,1-Difluoroethane (CAS 75-37-6)

Safe Drinking Water Act (SDWA)
Not regulated.

Food and Drug Administration (FDA)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Section 311/312
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
No

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. New Jersey Worker and Community Right-to-Know Act
1,1-Difluoroethane (CAS 75-37-6)

US. Massachusetts RTK - Substance List
1,1-Difluoroethane (CAS 75-37-6)

US. Pennsylvania Worker and Community Right-to-Know Law
Not listed.

US. Rhode Island RTK
1,1-Difluoroethane (CAS 75-37-6)

US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Volatile organic compounds (VOC) regulations

EPA
VOC content (40 CFR 51.100(s))
0 %
Consumer products (40 CFR 59, Subpt. C)
Not regulated

State
Consumer products
This product is regulated as a Pressurized Gas Duster. This product is compliant for use in all 50 states.
VOC content (CA)
0 %
VOC content (OTC)
0 %

International Inventories

Country(s) or region
Inventory name
On inventory (yes/no)*
Australia
Australian Inventory of Chemical Substances (AICS)
Yes
Canada
Domestic Substances List (DSL)
Yes
Non-Domestic Substances List (NDSL)
No
China
Inventory of Existing Chemical Substances in China (IECSC)
Yes
Europe
European Inventory of Existing Commercial Chemical Substances (EINECS)
Yes
European List of Notified Chemical Substances (ELINCS)
No
Japan
Inventory of Existing and New Chemical Substances (ENCS)
Yes
Korea
Existing Chemicals List (ECL)
Yes
New Zealand
New Zealand Inventory
Yes
Material name: Duster™ Moisture-Free Dust & Lint Remover

Philippines

Philippine Inventory of Chemicals and Chemical Substances (PICCS) Yes

United States & Puerto Rico

Toxic Substances Control Act (TSCA) Inventory Yes

"A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
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<tbody>
<tr>
<td>Issue date</td>
<td>05-27-2015</td>
</tr>
<tr>
<td>Revision date</td>
<td>07-01-2015</td>
</tr>
<tr>
<td>Prepared by</td>
<td>Allison Cho</td>
</tr>
<tr>
<td>Version #</td>
<td>02</td>
</tr>
<tr>
<td>Further information</td>
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<td></td>
<td>Flammability: 4</td>
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<td></td>
<td>Personal protection: B</td>
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<td></td>
<td>Instability: 1</td>
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