SAFETY DATA SHEET

1. Identification

Product identifier: Duster Aerosol Dust Removal System
Other means of identification:
- Product code: 74085
- Recommended use: Pressurized gas duster
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information:
Manufactured or sold by:
- Company name: CRC Canada Co.
- Address: 2-1246 Lorimar Dr.
  Mississauga, Ontario L5S 1R2
- Canada
- Telephone: General Information 905-670-2291
- Emergency phone number: 24-Hour Emergency 800-424-9300 (Canada)
  (CHEMTREC) 703-527-3887 (International)
- Website: www.crc-canada.ca
- E-mail: Support.CA@crcindustries.com

2. Hazard(s) identification

Physical hazards: Gases under pressure
Health hazards: Not classified.
Environmental hazards: Not classified.

Label elements:
- Signal word: Warning
- Hazard statement: Contains gas under pressure; may explode if heated.
- Precautionary statement:
  - Prevention: Observe good industrial hygiene practices.
  - Response: Wash hands after handling.
  - Storage: Protect from sunlight. Store in a well-ventilated place.
  - Disposal: Dispose of waste and residues in accordance with local authority requirements.

Other hazards: None known.

Supplemental information:
When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride.

3. Composition/information on ingredients

Mixtures:
- Chemical name: 1,1,1,2-tetrafluoroethane
- Common name and synonyms: HFC-134a
- CAS number: 811-97-2
- %: 100

4. First-aid measures

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT give epinephrine (adrenaline). Get medical attention if symptoms persist.

Skin contact: For liquid contact or direct spray effects, warm area gradually and get medical attention if there is evidence of tissue damage. Flush area with plenty of water. Treat as frostbite.
Eye contact

For liquid contact or direct spray effects, immediately flush with plenty of water for 15 minutes. Call a physician if frostbite occurs.

Ingestion

Do not induce vomiting. Call a physician immediately.

Most important symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Wear suitable protective equipment.

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

Contents under pressure. Pressurized container may rupture when exposed to heat or flame. No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing apparatus. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Ventilate the area. For waste disposal, see section 13 of the SDS.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

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. Avoid contact with eyes. Avoid contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Use care in handling/storage. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol. Contents under pressure. Do not puncture, incinerate or crush. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not handle or store near an open flame, heat or other sources of ignition. Store in a well-ventilated place. Use care in handling/storage. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local/regional/national/international regulation.

8. Exposure controls/personal protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates 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. Provide eyewash station.

**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: Neoprene.

**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. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. 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. Wash contaminated clothing before reuse.

### 9. Physical and chemical properties

**Appearance**
- **Physical state**
  Liquid.
- **Form**
  Aerosol.
- **Color**
  Colorless.
- **Odor**
  Ethereal.
- **Odor threshold**
  Not available.
- **pH**
  Not available.
- **Melting point/freezing point**
  -149.8 °F (-101 °C)
- **Initial boiling point and boiling range**
  -15.5 °F (-26.4 °C)
- **Flash point**
  None (Tag Closed Cup)
- **Evaporation rate**
  Very fast.
- **Flammability (solid, gas)**
  Not available.

**Upper/lower flammability or explosive limits**
- **Flammability limit - lower (%)**
  Not applicable.
- **Flammability limit - upper (%)**
  Not applicable.
- **Explosive limit - lower (%)**
  Not available.
- **Explosive limit - upper (%)**
  Not available.

**Vapor pressure**
6652.8 hPa estimated

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

**Relative density**
1.24

**Solubility(ies)**
- **Solubility (water)**
  0.95 %
- **Partition coefficient (n-octanol/water)**
  Not available.

**Auto-ignition temperature**
> 1369.4 °F (> 743 °C)

**Decomposition temperature**
694.4 °F (368 °C)

**Viscosity**
Not available.

**Other information**
- **Partition coefficient (oil/water)**
  1.68
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. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride.

**Incompatible materials**

**Hazardous decomposition products**

11. Toxicological information

**Information on likely routes of exposure**

**Inhalation**
Inhalation of dispersed gas is not expected to cause negative effects. Inhalation of concentrated vapor may product anesthetic effects and feeling of euphoria. Prolonged exposure can cause rapid breathing, headache, dizziness, narcosis, and unconsciousness. Deliberately inhaling this product can lead to death from asphyxiation depending on concentration and time of exposure.

**Skin contact**
Contact with dispersed gas is not expected to cause negative effects. Contact with direct spray can cause frostbite, irritation and dermatitis.

**Eye contact**
Contact with dispersed gas is not expected to cause negative effects. Contact with direct spray can cause severe irritation, redness, tearing, blurred vision, and possible freeze burns.

**Ingestion**
Ingestion of liquid product may cause frostbite to mouth and throat. Liquid product may pose aspiration hazard.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation**
Contact with dispersed gas is not expected to cause negative effects.

**Information on toxicological effects**

**Acute toxicity**
Not classified.

**Skin corrosion/irritation**
Prolonged skin contact may cause temporary irritation. Contact with direct spray can cause frostbite, irritation and dermatitis.

**Serious eye damage/eye irritation**
Direct contact with eyes may cause temporary irritation. Contact with direct spray can cause severe irritation, redness, tearing, blurred vision, and possible freeze burns.

**Respiratory sensitization**
Not available.

**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 - single exposure**
Not classified.

**Specific target organ toxicity - repeated exposure**
Not classified.

**Aspiration hazard**
Liquid product may pose aspiration hazard.

**Chronic effects**
Prolonged inhalation may be harmful.

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**

**Partition coefficient n-octanol / water (log Kow)**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Log Kow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-tetrafluoroethane</td>
<td>1.274</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**
Contents under pressure. Do not puncture, incinerate or crush. Empty container can be recycled. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national regulations.

**Local disposal regulations**
Dispose in accordance with all applicable regulations.

**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

**TDG**

<table>
<thead>
<tr>
<th>UN number</th>
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<tbody>
<tr>
<td>UN proper shipping name</td>
<td>AEROSOLS, non-flammable, Limited Quantity</td>
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<tr>
<td>Transport hazard class(es)</td>
<td>2.2</td>
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<tr>
<td>Class</td>
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<tr>
<td>Subsidiary risk</td>
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</tr>
<tr>
<td>Packing group</td>
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<tr>
<td>Environmental hazards</td>
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<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
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**IATA**

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<th>UN number</th>
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<td>Consumer Commodity</td>
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<td>Environmental hazards</td>
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<td>ERG Code</td>
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<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
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**Other information**

- Passenger and cargo aircraft: Allowed with restrictions.
- Cargo aircraft only: Allowed with restrictions.

**IMDG**

<table>
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<th>UN number</th>
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<td>Subsidiary risk</td>
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<td>Packing group</td>
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<td>Environmental hazards</td>
<td>Marine pollutant: No.</td>
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<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
</tr>
</tbody>
</table>

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

- Not established.

15. Regulatory information

**Canadian regulations**

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

- Controlled Drugs and Substances Act: Not regulated.
- Greenhouse Gases: 1,1,1,2-tetrafluoroethane (CAS 811-97-2)
Precursor Control Regulations
Not regulated.

International regulations

Stockholm Convention
Not applicable.

Rotterdam Convention
Not applicable.

Kyoto protocol
1,1,1,2-tetrafluoroethane (CAS 811-97-2) Listed.

Montreal Protocol
Not applicable.

Basel Convention
Not applicable.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
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<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
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<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
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</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
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</tbody>
</table>

*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

Issue date 04-15-2016
Version # 01
Further information CRC # 282

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