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## Section 1: Product & Company Identification

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**Product Name:** Isopropyl Alcohol Cleaner (aerosol)

**Product Number (s):** 03201

**Product Use:** electronic cleaner

**Manufacturer / Supplier Contact Information:**

In United States:

CRC Industries, Inc.

885 Louis Drive

Warminster, PA 18974

[www.crcindustries.com](http://www.crcindustries.com)

1-215-674-4300 (General)

(800) 521-3168 (Technical)

(800) 272-4620 (Customer Service)

In Canada:

CRC Canada Co.

2-1246 Lorimar Drive

Mississauga, Ontario L5S 1R2

[www.crc-canada.ca](http://www.crc-canada.ca)

1-905-670-2291

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

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## Section 2: Hazards Identification

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Emergency Overview

**DANGER:** Flammable. Contents Under Pressure.

Appearance & Odor: Clear liquid with alcohol odor.

**Potential Health Effects:**

**ACUTE EFFECTS:**

**EYE:** May cause mild irritation including stinging and redness, but does not injure eye.

**SKIN:** Single, brief exposures may cause mild irritation. Symptoms may include redness, burning, drying and cracking of the skin.

**INHALATION:** Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Moderate amounts may cause irritation to the throat. Breathing large amounts may lead to central nervous system depression. Symptoms may include drowsiness, dizziness, fatigue, nausea or unconsciousness.

**INGESTION:** Swallowing small amounts of this material is not likely to cause harmful effects. Swallowing large amounts may be harmful and may irritate the gastrointestinal tract. If this material gets into the lungs during swallowing or vomiting, it may cause lung inflammation and other lung injury.

**CHRONIC EFFECTS:** Prolonged or repeated exposure may cause dry skin, low blood pressure, temporary changes in the liver, respiratory depression and effects on heart rate.

**TARGET ORGANS:** Animal studies have shown some organ effects, but the relevance to humans is unknown.

Medical Conditions Aggravated by Exposure: None known

See Section 11 for toxicology and carcinogenicity information on product ingredients.

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### Section 3: Composition/Information on Ingredients

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COMPONENT	CAS NUMBER	% by Wt.
Isopropyl alcohol	67-63-0	70 – 80
1,1-Difluoroethane (HFC-152a)	75-37-6	20 – 30

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### Section 4: First Aid Measures

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- Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.
- Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.
- Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.
- Ingestion: Do NOT induce vomiting. Contact a physician immediately.
- Note to Physicians:* Treat symptomatically.

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### Section 5: Fire-Fighting Measures

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**Flammable Properties:** This product is flammable in accordance with aerosol flammability definitions.

Flash Point:	54°F / 12.2°C (TCC)	Upper Explosive Limit:	12
Autoignition Temperature:	750°F / 399°C (estimate)	Lower Explosive Limit:	2

**Fire and Explosion Data:**

- Suitable Extinguishing Media: Class B fire extinguishers, dry chemical, foam or CO<sub>2</sub>
- Products of Combustion: Fumes, smoke and carbon monoxide
- Explosion Hazards: Aerosol containers, when exposed to heat from fire, may build pressure and rupture. Vapors may accumulate in a confined space and create a flammable atmosphere.
- Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition. Do not spray water directly on fire; product will float and could be reignited on surface of water.

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### Section 6: Accidental Release Measures

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- Personal Precautions: Use personal protection recommended in Section 8.
- Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.
- Methods for Containment & Clean-up: Dike area to contain spill. Remove all sources of ignition. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

## Section 7: Handling and Storage

**Handling Procedures:** Do not use product near any potential source of ignition. Avoid contact with eyes and skin. Avoid breathing vapors. 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. For product use instructions, please see the product label.

**Storage Procedures:** Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120°F / 49°C to prevent cans from rupturing.

**Aerosol Storage Level:** II

## Section 8: Exposure Controls/Personal Protection

### Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Isopropyl alcohol	400	500 (v)	200	400	NE		ppm
1,1-Difluoroethane (HFC-152a)	NE	NE	NE	NE	1000	AIHA	ppm
N.E. – Not Established		(c) – ceiling	(s) – skin	(v) – vacated			

### Controls and Protection:

**Engineering Controls:** Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

**Respiratory Protection:** None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.

**Eye/face Protection:** For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

**Skin Protection:** Use protective gloves such as neoprene or PVC. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

## Section 9: Physical and Chemical Properties

Physical State: liquid  
 Color: clear  
 Odor: alcohol  
 Odor Threshold: ND  
 Specific Gravity: 0.82  
 Initial Boiling Point: 179.6°F / 82°C  
 Freezing Point: ND  
 Vapor Pressure: ND  
 Vapor Density: 2 (air = 1)  
 Evaporation Rate: very fast

Solubility: miscible in water

Coefficient of water/oil distribution: ND

pH: NA

Volatile Organic Compounds: wt %: 98                      g/L: 715.4                      lbs./gal: 5.96

## Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Sources of ignition, temperature extremes

Incompatible Materials: Acids, aldehydes, alkalis, amines, chlorinated hydrocarbons, halogens, isocyanates, and strong oxidizing agents

Hazardous Decomposition Products: Oxides of carbon

Possibility of Hazardous Reactions: No

## Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

### Acute Toxicity:

<u>Component</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
Isopropyl alcohol	> 5000 mg/kg	12,800 mg/kg	16,000 ppm/8H
1,1-Difluoroethane (HFC-152a)	No data	No data	No data

### Chronic Toxicity:

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant eye</u>	<u>Sensitizer</u>
Isopropyl alcohol	No	No	No	No	No
1,1-Difluoroethane (HFC-152a)	No	No	No	No	No

Reproductive Toxicity: No information available

Teratogenicity: No information available

Mutagenicity: No information available

Synergistic Effects: No information available

## Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: no information available

Persistence / Degradability: No information available

Bioaccumulation / Accumulation: No information available

Mobility in Environment: No information available

## Section 13: Disposal Considerations

**Waste Classification:** The dispensed liquid product is a hazardous waste for the characteristic of ignitability with a waste code of D001.  
Empty aerosol containers may be recycled. Any liquid product should be managed as a hazardous waste.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

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## **Section 14: Transport Information**

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US DOT (ground): UN1950, Aerosols, flammable, 2.1, Limited Quantity

ICAO/IATA (air): UN1950, Aerosols, flammable, 2.1, Limited Quantity

IMO/IMDG (water): UN1950, Aerosols, 2.1, Limited Quantity

Special Provisions: None

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## **Section 15: Regulatory Information**

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### **U.S. Federal Regulations:**

#### Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

#### Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: None

**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.**

#### Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:	Fire Hazard	Yes
	Reactive Hazard	No
	Release of Pressure	Yes
	Acute Health Hazard	Yes
	Chronic Health Hazard	No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:  
None

#### Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

### **Canadian Regulations:**

#### Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: A, B5, D2B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

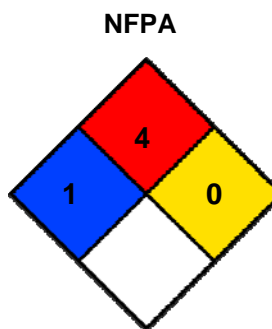
**European Union Regulations:**

**RoHS Compliance:** This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

**Additional Regulatory Information:** None

**Section 16: Other Information**

<b>HMIS® (II)</b>	
<b>Health:</b>	<b>1</b>
<b>Flammability:</b>	<b>4</b>
<b>Reactivity:</b>	<b>0</b>
<b>PPE:</b>	<b>B</b>



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick  
 CRC #: 921  
 Revision Date: 08/28/2017

Changes since last revision: Revision date

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists  
 CAS: Chemical Abstract Service  
 CFR: Code of Federal Regulations  
 DOT: Department of Transportation  
 DSL: Domestic Substance List  
 g/L: grams per Liter  
 HMIS: Hazardous Materials Identification System  
 IARC: International Agency for Research on Cancer  
 IATA: International Air Transport Association  
 ICAO: International Civil Aviation Organization  
 IMDG: International Maritime Dangerous Goods  
 IMO: International Maritime Organization  
 lbs./gal: pounds per gallon  
 LC: Lethal Concentration  
 LD: Lethal Dose

NA: Not Applicable  
 ND: Not Determined  
 NIOSH: National Institute of Occupational Safety & Health  
 NFPA: National Fire Protection Association  
 NTP: National Toxicology Program  
 OSHA: Occupational Safety and Health Administration  
 PMCC: Pensky-Martens Closed Cup  
 PPE: Personal Protection Equipment  
 ppm: Parts per Million  
 RoHS: Restriction of Hazardous Substances  
 STEL: Short Term Exposure Limit  
 TCC: Tag Closed Cup  
 TWA: Time Weighted Average  
 WHMIS: Workplace Hazardous Materials Information System