Section 1: Product & Company Identification

Product Name: Isopropyl Alcohol Cleaner

Product Number (s): 03201

Manufactured By:
CRC Industries, Inc. General Information (215) 674-4300
885 Louis Drive Technical Assistance (800) 521-3168
Warminster, PA 18974 Customer Service (800) 272-4620
www.crcindustries.com 24-Hr Emergency (CHEMTREC) (800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Clear liquid, alcohol odor

DANGER:
Flammable. Contents Under Pressure.

As defined by OSHA’s Hazard Communication Standard, this product is hazardous.

Potential Health Effects:

EYE:
Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

SKIN:
May cause mild skin 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.

See Section 11 for toxicology and carcinogenicity information on product ingredients.
Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS NUMBER</th>
<th>% by Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (IPA)</td>
<td>67-63-0</td>
<td>70 - 80</td>
</tr>
<tr>
<td>1,1-Difluoroethane (HFC-152a)</td>
<td>75-37-6</td>
<td>20 - 30</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

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: Contact a physician, medical facility or poison control center for advice about whether to induce vomiting.

Note to Physicians: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point: 54 F
Autoignition Temperature: 750 F
Upper Explosive Limit: 12.0
Lower Explosive Limit: 2.0

Suitable Extinguishing Media: Class B extinguishing agents, such as alcohol resistant foam, carbon dioxide, dry chemical

Products of Combustion: oxides of carbon

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.

Section 6: Accidental Release Measures

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. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear
Section 7: Handling and Storage

Handling Procedures: Do not use near sparks, flames or other sources of ignition. Avoid static electricity.

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

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>400</td>
<td>500(v)</td>
<td>200</td>
</tr>
<tr>
<td>1,1-Difluoroethane (HFC-152a)</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>N.E. – Not Established</td>
<td>(c)</td>
<td>–</td>
<td>(s)</td>
</tr>
<tr>
<td></td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Engineering Controls: Area should have ventilation to provide fresh air. Use local exhaust to prevent accumulation of vapors. 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. Use a NIOSH-approved cartridge respirator with organic vapor cartridge if vapors exceed exposure limits. 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 PVA or Neoprene. 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, colorless
Odor: alcohol odor
Specific Gravity: 0.79
Initial Boiling Point: 180 F
Freezing Point: -128 F
Vapor Pressure: 33 mm Hg @ 68 F
Vapor Density: 2.07 (air = 1)
Evaporation Rate: very fast
Solubility: Miscible
pH: NA
Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Do not use with aluminum equipment at temperatures above 120 F.

Incompatible Materials: Acids, aldehydes, alkanes, amines, chlorinated hydrocarbons, ethylene oxide, halogens, isocyanates, strong acids 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 EFFECTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Test</th>
<th>Result</th>
<th>Route</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>LD50</td>
<td>4396 mg/kg</td>
<td>Oral</td>
<td>Rat</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>LD50</td>
<td>12800 mg/kg</td>
<td>Dermal</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>LC50</td>
<td>72.6 mg/L/4H</td>
<td>Inhalation</td>
<td>Rat</td>
</tr>
</tbody>
</table>

CHRONIC EFFECTS

Carcinogenicity:

<table>
<thead>
<tr>
<th>Component</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA:</td>
<td>None listed</td>
</tr>
<tr>
<td>IARC:</td>
<td>Isopropyl alcohol</td>
</tr>
<tr>
<td>NTP:</td>
<td>None listed</td>
</tr>
</tbody>
</table>

Mutagenicity: No data available

Other: No data 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: Isopropyl alcohol – 96 Hr LC50 fathead minnow: 94900 mg/L (flow-through) 5 min EC50 Photobacterium phosphoreum: 35390 mg/L

Persistence / Degradability: Oxidizes rapidly by photo-chemical reactions in air. Material is readily biodegradable.

Bioaccumulation / Accumulation: Not expected to bioaccumulate significantly.

Mobility in Environment: Dissolves in water. If product enters soil, it will be highly mobile and may contaminate groundwater.
Section 13: Disposal Considerations

Disposal: The liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001. (See 40 CFR Part 261.20 – 261.33) Aerosol containers should be emptied and depressurized before disposal. Empty containers may be recycled. Any liquid product should be managed as a hazardous waste.

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

Section 14: Transport Information

Proper shipping description:

US DOT (ground): Consumer Commodity, ORM-D

Special Provisions: None

Section 15: Regulatory Information

U.S. Federal

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
State Regulations

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):
This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: None

State Right to Know:
New Jersey: 67-63-0, 75-37-6
Pennsylvania: 67-63-0, 75-37-6
Massachusetts: 67-63-0, 75-37-6
Rhode Island: 67-63-0, 75-37-6

Additional Regulatory Information: This product complies with Consumer Products VOC regulations as an Electronic Cleaner.

Section 16: Other Information

NFPA: Health: 1 Flammability: 3 Reactivity: 0
HMIS: Health: 1 Flammability: 3 Reactivity: 0 PPE: B

Prepared By: Michelle Rudnick
CRC #: 921
Revision Date: 05/13/2009

Changes since last revision: Propellant change

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.

CAS: Chemical Abstract Service
ppm: Parts per Million
TCC: Tag Closed Cup
PMCC: Pensky-Martens Closed Cup
PPE: Personal Protection Equipment
TWA: Time Weighted Average
OSHA: Occupational Safety and Health Administration
ACGIH: American Conference of Governmental Industrial Hygienists
NIOSH: National Institute of Occupational Safety & Health