



SAFETY DATA SHEET

1. Identification

Product identifier Isopropyl Alcohol Precision Cleaner

Other means of identification

Product code 03201

Recommended use Electronic cleaner

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.
Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300

Technical Assistance 800-521-3168

Customer Service

24-Hour Emergency (CHEMTREC) 800-272-4620

703-527-3887 (US)

703-527-3887 (International)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Gases under pressure Liquefied gas

Health hazards Serious eye damage/eye irritation Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Aspiration hazard Category 1

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. May be fatal if swallowed and enters airways. Causes serious eye irritation. May cause drowsiness or dizziness.

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. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist or vapor. Avoid breathing gas. Wash thoroughly after handling. Wear eye/face protection.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

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| Disposal | Dispose of contents/container in accordance with local/regional/national regulations. |
| Hazard(s) not otherwise classified (HNOC) | Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--------------------|--------------------------|------------|---------|
| Isopropyl alcohol | | 67-63-0 | 70 - 80 |
| 1,1-Difluoroethane | HFC-152a | 75-37-6 | 20 - 30 |

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

4. First-aid measures

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| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. |
| Skin contact | Rinse skin with water/shower. Get medical attention if irritation develops and persists. |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Most important symptoms/effects, acute and delayed | May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

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| Suitable extinguishing media | Alcohol resistant foam. Water fog. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. |
| Unsuitable extinguishing media | None known. |
| Specific hazards arising from the chemical | Contents under pressure. Pressurized container may explode when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. 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 explode when exposed to heat or flame. |

6. Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Remove all possible sources of ignition in the surrounding area. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Avoid breathing gas. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. 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 | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewer, basements or confined areas. |

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage**Precautions for safe handling**

Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. 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 breathing mist or vapor. Avoid breathing gas. Avoid contact with eyes. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Level 2 Aerosol.

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. Avoid spark promoters. These alone may be insufficient to remove static electricity. 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. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

| Components | Type | Value |
|---------------------------------|------|-----------|
| Isopropyl alcohol (CAS 67-63-0) | PEL | 980 mg/m3 |
| | | 400 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|---------------------------------|------|---------|
| Isopropyl alcohol (CAS 67-63-0) | STEL | 400 ppm |
| | TWA | 200 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|---------------------------------|------|----------------------|
| Isopropyl alcohol (CAS 67-63-0) | STEL | 1225 mg/m3 |
| | | 500 ppm |
| | TWA | 980 mg/m3 400 ppm |

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

| Components | Type | Value |
|----------------------------------|------|------------|
| 1,1-Difluoroethane (CAS 75-37-6) | TWA | 2700 mg/m3 |
| | | 1000 ppm |

Biological limit values**ACGIH Biological Exposure Indices**

| Components | Value | Determinant | Specimen | Sampling Time |
|---------------------------------|---------|-------------|----------|---------------|
| Isopropyl alcohol (CAS 67-63-0) | 40 mg/l | Acetone | Urine | * |

* - For sampling details, please see the source document.

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| Appropriate engineering controls | 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. Polyvinyl alcohol (PVA). |
| 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

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|---|--------------------------------|
| Physical state | Liquid. |
| Form | Aerosol. |
| Color | Clear. Colorless. |
| Odor | Alcoholic. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | -127.3 °F (-88.5 °C) estimated |
| Initial boiling point and boiling range | 179.6 °F (82 °C) estimated |
| Flash point | 54 °F (12.2 °C) Tag Closed Cup |
| Evaporation rate | Very fast. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | 2 % estimated |
| Flammability limit - upper (%) | 12 % estimated |
| Vapor pressure | 2056.7 hPa estimated |
| Vapor density | 2 (air = 1) |
| Relative density | 0.82 estimated |
| Solubility (water) | Miscible. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 750.2 °F (399 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity (kinematic) | Not available. |
| Percent volatile | 100 % |

10. Stability and reactivity

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| 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. |

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| Conditions to avoid | Heat, flames and sparks. Contact with incompatible materials. |
| Incompatible materials | Acids. Aldehydes. Alkalis. Amines. Chlorinated hydrocarbons. Halogens. Strong oxidizing agents. Isocyanates. Chlorine. |
| Hazardous decomposition products | Carbon oxides. |

11. Toxicological information

Information on likely routes of exposure

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| Ingestion | Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. |
| Inhalation | May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful. |
| Skin contact | Prolonged skin contact may cause temporary irritation. |
| Eye contact | Causes serious eye irritation. |

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects.

| Product | Species | Test Results |
|-------------------------------------|---------|--|
| Isopropyl Alcohol Precision Cleaner | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 18719.959 mg/kg estimated |
| <i>Inhalation</i> | | |
| LC50 | Rat | 21548.1543 ppm, 4 hours estimated 52.9277 mg/l, 4 hours estimated |
| <i>Oral</i> | | |
| LD50 | Rat | 6329.77 mg/kg estimated |

* Estimates for product may be based on additional component data not shown.

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|---|---|
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. |
| Serious eye damage/eye irritation | Causes serious eye irritation. |
| 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 | May cause drowsiness and dizziness. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death. |
| 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.

| Product | Species | | Test Results |
|-------------------------------------|----------------|--------------------------------------|-------------------------------------|
| Isopropyl Alcohol Precision Cleaner | | | |
| Aquatic | | | |
| <i>Acute</i> | | | |
| Crustacea | EC50 | Daphnia | 11817.8154 mg/l, 48 hours estimated |
| Fish | LC50 | Fish | 10091.7188 mg/l, 96 hours estimated |
| Components | Species | | Test Results |
| Isopropyl alcohol (CAS 67-63-0) | | | |
| Aquatic | | | |
| <i>Acute</i> | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 7550 - 13299 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 3200 mg/l, 96 hours |

* Estimates for product may be based on additional component data not shown.

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| Persistence and degradability | Readily biodegradable formula. |
| Bioaccumulative potential | No data available. |
| Partition coefficient n-octanol / water (log Kow) | |
| 1,1-Difluoroethane | 0.75 |
| Isopropyl alcohol | 0.05 |
| 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

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| Disposal of waste from residues / unused products | If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose in accordance with all applicable regulations. |
| Hazardous waste code | D001: Waste Flammable material with a flash point <140 F |
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. |

14. Transport information

DOT

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| UN number | UN1950 |
| UN proper shipping name | Aerosols, flammable, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Label(s) | 2.1 |
| Packing group | Not applicable. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | N82 |
| Packaging exceptions | 306 |
| Packaging non bulk | None |
| Packaging bulk | None |

IATA

| | |
|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, flammable, Limited Quantity |
| 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 Allowed.
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
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.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

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 - Yes
Hazard categories 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)
Isopropyl alcohol (CAS 67-63-0)

US. Massachusetts RTK - Substance List

1,1-Difluoroethane (CAS 75-37-6)
 Isopropyl alcohol (CAS 67-63-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Isopropyl alcohol (CAS 67-63-0)

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)) 74.3 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as an Electronic Cleaner. This product is compliant for use in all 50 states.

VOC content (CA) 74.3 %

VOC content (OTC) 74.3 %

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 |
| Canada | 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 |
| Europe | 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 |
| 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

| | |
|----------------------------|--|
| Issue date | 08-28-2014 |
| Prepared by | Allison Cho |
| Version # | 01 |
| Further information | CRC # 921 |
| HMIS® ratings | Health: 1 Flammability: 4 Physical hazard: 0 Personal protection: B |
| NFPA ratings | Health: 1 Flammability: 4 Instability: 0 |

NFPA ratings

Disclaimer

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