# SAFETY DATA SHEET

## 1. Identification

**Product identifier** **Contact Cleaner 2000® Precision Cleaner - 55 gal**

**Other means of identification**

**Product Code** No. 03153 (Item# 1003423)

**Recommended use** Precision electronics 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** 800-272-4620

**24-Hour Emergency (CHEMTREC)** 800-424-9300 (US)

**Website** www.crcindustries.com

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards**

| | |
|---|---|
| Acute toxicity, oral | Category 4 |
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2 |
| Specific target organ toxicity, single exposure | Category 3 narcotic effects |
| Aspiration hazard | Category 1 |

**Environmental hazards** Hazardous to the aquatic environment, long-term hazard — Category 3

**OSHA defined hazards** Simple asphyxiant

**Label elements**

**Signal word** Danger

**Hazard statement** May displace oxygen and cause rapid suffocation. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness.

**Precautionary statement**

**Prevention** Use with adequate ventilation. 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/vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not enter storage areas or confined spaces unless adequately ventilated. Wear eye protection/face protection. Wear protective gloves.

**Response** If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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 advice/attention.

| | |
|---|---|
| **Storage** | Store in a well-ventilated place. Keep container tightly closed. Store locked up. |
| **Disposal** | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| **Hazard(s) not otherwise classified (HNOC)** | 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, hydrogen chloride, and possibly phosgene. |

## 3. Composition/information on ingredients

**Mixtures**

| Chemical name | Common name and synonyms | CAS number | % |
|---|---|---|---|
| trans-1,2-dichloroethylene | | 156-60-5 | 50 - 60 |
| 1,1,1,3,3-pentafluorobutane | | 406-58-6 | 20 - 30 |
| decafluoropentane | HFC-43-10mee | 138495-42-8 | 5 - 10 |
| isopropyl alcohol | | 67-63-0 | 0.1 - 1 |
| methylal | | 109-87-5 | 0.1 - 1 |

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

## 4. First-aid measures

| | |
|---|---|
| **Inhalation** | Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory tract irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately. |
| **Skin contact** | Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. |
| **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** | Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness. Headache. Fatigue. Nausea, vomiting. Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themself. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. |
| **Indication of immediate medical attention and special treatment needed** | Provide general supportive measures and treat symptomatically. Keep victim warm. 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. Show this safety data sheet to the doctor in attendance. |

## 5. Fire-fighting measures

| | |
|---|---|
| **Suitable extinguishing media** | Foam. Powder. Carbon dioxide (CO2). Use fire-extinguishing media appropriate for surrounding materials. |
| **Unsuitable extinguishing media** | Do not use water jet as an extinguisher, as this will spread the fire. |
| **Specific hazards arising from the chemical** | When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride, hydrogen chloride, and possibly phosgene. During fire, gases hazardous to health may be formed. |
| **Special protective equipment and precautions for firefighters** | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| **Fire-fighting equipment/instructions** | Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials. |
| **Specific methods** | Use standard firefighting procedures and consider the hazards of other involved materials. |
| **General fire hazards** | No unusual fire or explosion hazards noted. |

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

In the event of a leak evacuate all personnel until ventilation can restore oxygen concentrations to safe levels. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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**

Use water spray to reduce vapors or divert vapor cloud drift. This product is miscible in water. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling**

Do not taste or swallow. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Do not enter storage areas or confined spaces unless adequately ventilated. Use only outdoors or in a well-ventilated area. Oxygen concentration should not fall below 19.5 % at sea level (pO2 = 135 mmHg). Mechanical ventilation or local exhaust ventilation may be required. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.

**Conditions for safe storage, including any incompatibilities**

Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

**Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known 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 |
| methylal (CAS 109-87-5) | PEL | 3100 mg/m3 |
| | | 1000 ppm |
| trans-1,2-dichloroethylene (CAS 156-60-5) | PEL | 790 mg/m3 |
| | | 200 ppm |

**US. ACGIH Threshold Limit Values**

| Components | Type | Value |
|---|---|---|
| isopropyl alcohol (CAS 67-63-0) | STEL | 400 ppm |
| | TWA | 200 ppm |
| methylal (CAS 109-87-5) | TWA | 1000 ppm |
| trans-1,2-dichloroethylene (CAS 156-60-5) | 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 |
| methylal (CAS 109-87-5) | TWA | 3100 mg/m3 |
| | | 1000 ppm |
| trans-1,2-dichloroethylene (CAS 156-60-5) | TWA | 790 mg/m3 |
| | | 200 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.

**Appropriate engineering controls** Good general ventilation 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 and safety shower.

**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. Nitrile. Polyvinyl alcohol (PVA). Viton/butyl.

**Other** Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**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** 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.

## 9. Physical and chemical properties

**Appearance**

**Physical state** Liquid.

**Form** Liquid.

**Color** Colorless.

**Odor** Slight ethereal.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** -112 °F (-80 °C) estimated

**Initial boiling point and boiling range** 104.2 °F (40.1 °C) estimated

**Flash point** None.

**Evaporation rate** Fast.

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

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 2.2 % estimated

| | |
|---|---|
| **Flammability limit - upper (%)** | 19.9 % estimated |
| **Vapor pressure** | 425.7 hPa estimated |
| **Vapor density** | > 1 (air = 1) |
| **Relative density** | 1.26 |
| **Solubility(ies)** | |
| **Solubility (water)** | Slight. |
| **Partition coefficient (n-octanol/water)** | Not available. |
| **Auto-ignition temperature** | 860 °F (460 °C) estimated |
| **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. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride, hydrogen chloride, and possibly phosgene. Contact with incompatible materials. |
| **Incompatible materials** | Strong oxidizing agents. |
| **Hazardous decomposition products** | Carbon oxides. Hydrogen chloride. Phosgene. Hydrogen fluoride. |

## 11. Toxicological information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation** | Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful. |
| **Skin contact** | Causes skin irritation. |
| **Eye contact** | Causes serious eye irritation. |
| **Ingestion** | Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. |
| **Symptoms related to the physical, chemical and toxicological characteristics** | Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness. Headache. Fatigue. Nausea, vomiting. Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themself. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. |

**Information on toxicological effects**

| | |
|---|---|
| **Acute toxicity** | May be fatal if swallowed and enters airways. In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. |

| Components | Species | Test Results |
|---|---|---|
| isopropyl alcohol (CAS 67-63-0) | | |
| **Acute** | | |
| **Dermal** | | |
| LD50 | Rabbit | 5030 - 7900 mg/kg |
| **Inhalation** | | |
| LC50 | Rat | 16000 ppm, 4 hours |
| **Oral** | | |
| LD50 | Rat | 4700 - 5800 mg/kg |

| Components | Species | Test Results |
|---|---|---|
| methylal (CAS 109-87-5) | | |
| **Acute** | | |
| **Dermal** | | |
| LD50 | Rabbit | > 13700 mg/kg |
| **Oral** | | |
| LD50 | Rat | 6653 mg/kg |

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**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** Not classifiable as to carcinogenicity to humans.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

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

**Specific target organ toxicity - single exposure** May cause drowsiness or dizziness.

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

**Aspiration hazard** May be fatal if swallowed and enters airways.

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

## 12. Ecological information

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

| Components | | Species | Test Results |
|---|---|---|---|
| isopropyl alcohol (CAS 67-63-0) | | | |
| **Aquatic** | | | |
| Fish | LC50 | Bluegill (Lepomis macrochirus) | > 1400 mg/l, 96 hours |
| methylal (CAS 109-87-5) | | | |
| **Aquatic** | | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 6261 - 7801 mg/l, 96 hours |
| trans-1,2-dichloroethylene (CAS 156-60-5) | | | |
| **Aquatic** | | | |
| Fish | LC50 | Bluegill (Lepomis macrochirus) | 120 - 160 mg/l, 96 hours |
| *Acute* | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 220 mg/l, 48 hours |

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential**

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

| | |
|---|---|
| isopropyl alcohol | 0.05 |
| methylal | 0 |
| trans-1,2-dichloroethylene | 2.06 |

**Mobility in soil** No data available.

**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.

## 13. Disposal considerations

**Disposal instructions** This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazardous waste code** Not regulated.

**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**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

## 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)**

decafluoropentane (CAS 138495-42-8) 1.0 % One-Time Export Notification only.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

trans-1,2-dichloroethylene (CAS 156-60-5)

**CERCLA Hazardous Substances: Reportable quantity**

trans-1,2-dichloroethylene (CAS 156-60-5) 1000 LBS

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.

**Other federal regulations**

**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)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Contains component(s) regulated under the Safe Drinking Water Act.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

isopropyl alcohol (CAS 67-63-0) Low priority

**Food and Drug Administration (FDA)** Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Classified hazard categories**
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard
Simple asphyxiant

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Not regulated.

**US state regulations**

**US. New Jersey Worker and Community Right-to-Know Act**

isopropyl alcohol (CAS 67-63-0)
methylal (CAS 109-87-5)
trans-1,2-dichloroethylene (CAS 156-60-5)

**US. Massachusetts RTK - Substance List**

isopropyl alcohol (CAS 67-63-0)
methylal (CAS 109-87-5)
trans-1,2-dichloroethylene (CAS 156-60-5)

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

isopropyl alcohol (CAS 67-63-0)
methylal (CAS 109-87-5)
trans-1,2-dichloroethylene (CAS 156-60-5)

**US. Rhode Island RTK**

isopropyl alcohol (CAS 67-63-0)
methylal (CAS 109-87-5)
trans-1,2-dichloroethylene (CAS 156-60-5)

**California Proposition 65**

**WARNING:** Reproductive Harm - www.P65Warnings.ca.gov

**California Proposition 65 - CRT: Listed date/Developmental toxin**

methanol (CAS 67-56-1) Listed: March 16, 2012

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

isopropyl alcohol (CAS 67-63-0)
trans-1,2-dichloroethylene (CAS 156-60-5)

**Volatile organic compounds (VOC) regulations**

**EPA**

| | |
|---|---|
| **VOC content (40 CFR 51.100(s))** | 60.5 % |
| **Consumer products (40 CFR 59, Subpt. C)** | Not regulated |

**State**

| | |
|---|---|
| **Consumer products** | This product is regulated as an Electronic Cleaner. This product is not compliant to be sold for use in California. This product is compliant in all other states. |
| **VOC content (CA)** | 100 % |
| **VOC content (OTC)** | 60.5 % |

**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) | No |
| Canada | Non-Domestic Substances List (NDSL) | Yes |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| 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 | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|---|---|---|
| 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** | 03-20-2020 |
| **Prepared by** | Allison Yoon |
| **Version #** | 01 |
| **Further information** | CRC # 657B/1002685 |
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| **Revision information** | This document has undergone significant changes and should be reviewed in its entirety. |