



SAFETY DATA SHEET

1. Identification

Product identifier Contact Cleaner 2000® Precision Cleaner - 55 gal

Other means of identification

Product Code No. 02143 (Item# 1003226)

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 themselves. 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 (CO ₂). 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.

Environmental precautions

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

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/m ³ 400 ppm
methylal (CAS 109-87-5)	PEL	3100 mg/m ³ 1000 ppm
trans-1,2-dichloroethylene (CAS 156-60-5)	PEL	790 mg/m ³ 200 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
methylal (CAS 109-87-5)		400 ppm
	TWA	3100 mg/m3
trans-1,2-dichloroethylene (CAS 156-60-5)		1000 ppm
	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 themselves. 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.
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Components	Species	Test Results
isopropyl alcohol (CAS 67-63-0)		
<u>Acute</u>		
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)		
<u>Acute</u>		
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	01-10-2020
Revision date	03-20-2020
Prepared by	Allison Yoon
Version #	02
Further information	CRC # 657B/1002685
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Revision information	This document has undergone significant changes and should be reviewed in its entirety.