



# MATERIAL SAFETY DATA SHEET

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## Section 1: Product & Company Identification

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**Product Name:** Electronic Degreaser (aerosol)

**Product Number (s):** 02215, 72215

**Product Use:** General purpose degreaser

**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

In Mexico:

CRC Industries Mexico

Av. Benito Juárez 4055 G

Colonia Orquídea

San Luís Potosí, SLP CP 78394

[www.crc-mexico.com](http://www.crc-mexico.com)

52-444-824-1666

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

**WARNING:** Vapor Harmful. Contents Under Pressure.  
Appearance & Odor: Clear, colorless liquid with a strong odor

**Potential Health Effects:**

**ACUTE EFFECTS:**

**EYE:** May cause moderate irritation ranging from redness to burning.

**SKIN:** May cause moderate irritation ranging from redness to burning.

**INHALATION:** May irritate nose, throat and lungs. Symptoms include coughing, wheezing, and laryngitis. Exposure to high doses may cause central nervous system depression, including headache, nausea, giddiness, confusion and delirium. Such doses may also cause adverse effect in liver, kidney and lung.

**INGESTION:** Low toxicity; not expected to be a hazard in normal use.

**CHRONIC EFFECTS:** Long term overexposure may lead to central nervous system, liver or kidney effects.

**TARGET ORGANS:** Central nervous system, liver, kidney

**Medical Conditions Aggravated by Exposure:** Dermatitis, respiratory disorders, central nervous system disorders

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.
1-Bromopropane (nPB)	106-94-5	40 – 50
t-Butanol	75-65-0	< 2
1,2-Butylene oxide	106-88-7	< 1
COzol® 202	proprietary	2 – 5
1,1,1,2-Tetrafluoroethane (HFC-134a)	811-97-2	45 – 55
Carbon Dioxide	124-38-9	1 – 3

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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: Wash mouth with plenty of water. If conscious, give person a glass of water to drink. Call a physician.

*Note to Physicians:* Treat symptomatically.

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**Section 5: Fire-Fighting Measures**

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

Flash Point: None (TCC) Upper Explosive Limit: 8.0  
Autoignition Temperature: 914°F / 490°C Lower Explosive Limit: 3.0

**Fire and Explosion Data:**

Suitable Extinguishing Media: Carbon dioxide, dry chemical, foam. Class B fire extinguisher.

Products of Combustion: Hydrogen bromide or bromine, oxides of carbon

Explosion Hazards: Aerosol containers, when exposed to heat from fire, may build pressure and explode.

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.

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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. 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: Wear appropriate personal protective equipment. Use only with adequate ventilation. Open doors or windows to provide fresh air in poor circulation areas. 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: I

## **Section 8: Exposure Controls/Personal Protection**

### **Exposure Guidelines:**

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
1-Bromopropane (nPB)	N.E.	N.E.	10	N.E.	N.E.		ppm
t-Butanol	100	N.E.	100	N.E.	N.E.		ppm
1,2-Butylene oxide	N.E.	N.E.	N.E.	N.E.	2	AIHA	ppm
COzol® 202	400	500(v)	200	400	N.E.		ppm
1,1,1,2-Tetrafluoroethane	NE	NE	NE	NE	1000	AIHA	ppm
Carbon dioxide	5000	30000(v)	5000	30000	N.E.		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 Viton® or Norfoil. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

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## Section 9: Physical and Chemical Properties

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Physical State: liquid  
 Color: clear, colorless  
 Odor: strong solvent odor  
 Odor Threshold: ND  
 Specific Gravity: 1.27  
 Initial Boiling Point: 160°F / 71°C  
 Freezing Point: NE  
 Vapor Pressure: 139 mmHg @ 68°F / 20°C  
 Vapor Density: ~ 4.3 (air = 1)  
 Evaporation Rate: > 1 (ether = 1)  
 Solubility: 0.25 g/100 ml at 68°F / 20°C  
 Coefficient of water/oil distribution: ND  
 pH: NA  
 Volatile Organic Compounds: wt %: 49.9                      g/L: 633.7                      lbs./gal: 5.28

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## Section 10: Stability and Reactivity

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Stability: Stable  
 Conditions to Avoid: Keep away from ignition sources.  
 Incompatible Materials: Strong oxidizers and strong bases.  
 Hazardous Decomposition Products: Hydrogen bromide and/or bromine, oxides of carbon.  
 Possibility of Hazardous Reactions: No

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## Section 11: Toxicological Information

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

### Acute Toxicity:

Component	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 (rat)
1-Bromopropane (nPB)	4260 mg/kg	No data	253 g/m <sup>3</sup> /0.5Hr
t-Butanol	3500 mg/kg	> 2 mg/kg	> 10,000 ppm/4H
1,2-Butylene oxide	500 mg/kg	2100 µL/kg	6300 mg/m <sup>3</sup> /4H
COzol® 202 (Ingredient #1)	5000 mg/kg	12,800 mg/kg	16,000 ppm/8H
COzol® 202 (Ingredient #2)	6653 mg/kg	No data	15,000 ppm
1,1,1,2-Tetrafluoroethane	No data	No data	1500 g/m <sup>3</sup> /4H
Carbon dioxide	No data	No data	470,000 ppm/30M

**Chronic Toxicity:**

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u>	<u>Sensitizer</u>
1-Bromopropane (nPB)	No	No	No	E, S & R (mild)	Unknown
t-Butanol	No	No	No	No data	Unknown
1,2-Butylene oxide	No	Group 2B	No	E, S & R (mild)	Unknown
COzol® 202 (Ingredient #1)	No	No	No	E (moderate) / S (mild)	No
COzol® 202 (Ingredient #2)	No	No	No	E, S & R (moderate)	Unknown
1,1,1,2-Tetrafluoroethane	No	No	No	No	Unknown
Carbon dioxide	No	No	No	No	No

E – Eye	S – Skin	R - Respiratory
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Reproductive Toxicity: No information available  
Teratogenicity: No information available  
Mutagenicity: Ames test negative  
Synergistic Effects: No information available

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**Section 12: Ecological Information**

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

Ecotoxicity: 1-Bromopropane – 96 Hr LC50 Fathead minnow: 67.3 mg/L (flow-through)  
 Persistence / Degradability: No information available  
 Bioaccumulation / Accumulation: No information available  
 Mobility in Environment: No information available

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**Section 13: Disposal Considerations**

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**Waste Classification:** The dispensed liquid product is not a RCRA hazardous waste. (See 40 CFR Part 261.20 – 261.33)  
 Empty aerosol containers may be recycled.

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, non-flammable, 2.2, Limited Quantity\*\*  
 ICAO/IATA (air): UN1950, Aerosols, non-flammable, 2.2, Limited Quantity  
 IMO/IMDG (water): UN1950, Aerosols, 2.2, Limited Quantity  
 Special Provisions: \*\*This product can be classified and labeled as 'Consumer Commodity, ORM-D' for domestic ground shipping.

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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: 1,2-Butylene oxide (100 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.**

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

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

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:

1,2-Butylene oxide (< 1%), t-Butanol (< 3%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): 1,2-Butylene oxide

Occupational Safety and Health Administration (OSHA):

This product is regulated under the Hazard Communication Standard.

**U.S. State Regulations:**

Consumer Products VOC Regulations: This product is not labeled for use in California. In other states with Consumer Products VOC regulations, this product is compliant as a General Purpose Degreaser.

State Right to Know:

New Jersey: 75-05-8, 106-88-7, 75-65-0, 124-38-9, 67-63-0, 109-87-5  
Pennsylvania: 106-94-5, 75-05-8, 106-88-7, 75-65-0, 124-38-9, 67-63-0, 109-87-5  
Massachusetts: 106-94-5, 75-05-8, 106-88-7, 75-65-0, 124-38-9, 67-63-0, 109-87-5  
Rhode Island: 75-05-8, 106-88-7, 75-65-0, 124-38-9, 67-63-0, 109-87-5

**Canadian Regulations:**

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

WHMIS Hazard Class: A, D2A, D2B

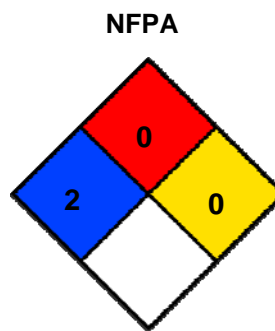
**European Union Regulations:**

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:** This product contains less than 0.05% isopropyl bromide.

**Section 16: Other Information**

<b>HMIS® (II)</b>	
<b>Health:</b>	<b>2</b>
<b>Flammability:</b>	<b>0</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 #: 658 / 658A  
 Revision Date: 07/30/2013

Changes since last revision: Section 13: Disposal Considerations  
 Section 14: Transport Information

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