



# 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):** 03515

**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    | 80 – 90  |
| t-Butanol            | 75-65-0     | < 3      |
| 1,2-Butylene oxide   | 106-88-7    | < 1      |
| COzol® 202           | proprietary | 3 – 5    |
| Carbon Dioxide       | 124-38-9    | 4 – 6    |

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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.

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## Section 7: Handling and Storage

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**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

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## Section 8: Exposure Controls/Personal Protection

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### **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  |
| 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 %: 95 g/L: 1205 lbs./gal: 10.08

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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:

| <u>Component</u>           | <u>Oral LD50 (rat)</u> | <u>Dermal LD50 (rabbit)</u> | <u>Inhalation LC50 (rat)</u> |
|----------------------------|------------------------|-----------------------------|------------------------------|
| 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                   |
| 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           |
| Carbon dioxide             | No                     | No                     | No                    | No                      | No                |

|         |          |                 |
|---------|----------|-----------------|
| E – Eye | S – Skin | R - Respiratory |
|---------|----------|-----------------|

|                               |                          |
|-------------------------------|--------------------------|
| <u>Reproductive Toxicity:</u> | No information available |
| <u>Teratogenicity:</u>        | No information available |
| <u>Mutagenicity:</u>          | Ames test negative       |
| <u>Synergistic Effects:</u>   | 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, nonflammable, 2.2, Limited Quantity**   |
| ICAO/IATA (air):    | UN1950, Aerosols, nonflammable, 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 until January 1, 2014.<br>If shipping as limited quantity by ground, note that shipping papers are not required. |

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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:****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:

|                   |
|-------------------|
| 1-Bromopropane    |
| methanol (< 0.3%) |

**Consumer Products VOC Regulations:** In states with Consumer Product VOC regulations, this product is Not for Retail Sale. This product is for use in the manufacturing process only.

**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.

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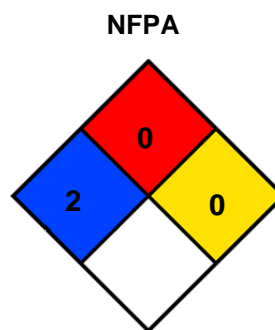
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**Section 16: Other Information**

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| HMIS® (II)    |   |
|---------------|---|
| Health:       | 2 |
| Flammability: | 0 |
| Reactivity:   | 0 |
| PPE:          | B |



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick  
CRC #: 658 / 658A  
Revision Date: 08/24/2012

Changes since last revision: Section 14: Transport Information  
Section 15: Prop 65

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