



Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: Electronic Degreaser (Bulk)

Product Number (s): 02217, 02218, 02219

Manufactured By:

CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com

General Information	(215) 674-4300
Technical Assistance	(800) 521-3168
Customer Service	(800) 272-4620
24-Hr Emergency (CHEMTREC)	(800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Clear, colorless liquid with a strong odor

WARNING
Vapor Harmful.

As defined by OSHA's Hazard Communication Standard, this product is hazardous.

Potential Health 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.

Section 3: Composition/Information on Ingredients

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	Trade Secret	3 - 5

Section 4: First Aid Measures

- 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:** None

Section 5: Fire-Fighting Measures

Flammable Properties: This material is nonflammable according to OSHA definitions.

Flash Point: none (TCC) Upper Explosive Limit: 8.0
Autoignition Temperature: 914 F Lower Explosive Limit: 3.0

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

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

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.

Section 6: Accidental Release Measures

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.

Storage Procedures: Store in a cool dry area out of direct sunlight.

Aerosol Storage Level: NA

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURC E	
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
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated							

Engineering Controls: Area should have ventilation to provide fresh air. Use local exhaust to prevent accumulation of vapors. 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. Use NIOSH-approved self-contained positive pressure respirators in low circulation areas 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.

Section 9: Physical and Chemical Properties

Physical State: liquid
 Color: clear, colorless
 Odor: strong solvent odor
 Specific Gravity: 1.27

Initial Boiling Point: 160 F

Freezing Point: NE

Vapor Pressure: 139 mmHg @ 68 F

Vapor Density: ~ 4.3 (air = 1)

Evaporation Rate: > 1 (ether = 1)

Solubility: 0.25 g/100 ml at 68 F

pH: NA

Volatile Organic Compounds: wt %: 100 g/L: 1270 lbs./gal: 10.61**Section 10: Stability and Reactivity**

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

Section 11: Toxicological Information

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

ACUTE EFFECTS

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
1-Bromopropane	LD50	4260 mg/kg	Oral	Rat
1-Bromopropane	LC50	253 g/m ³ /0.5Hr	Inhalation	Rat
1,2-Butylene oxide	LD50	500 mg/kg	Oral	Rat
1,2-Butylene oxide	LD50	2100 µL/kg	Dermal	Rabbit
t-Butanol	LD50	3500 mg/kg	Oral	Rat

CHRONIC EFFECTS**Carcinogenicity:**

	<u>Component</u>	<u>Result</u>
OSHA:	1,2-Butylene oxide	Hazard communication carcinogen
IARC:	1,2-Butylene oxide	2B – possibly carcinogenic to humans
NTP:	none	

Mutagenicity: Ames test negative

Other: none

Section 12: Ecological Information

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

Section 13: Disposal Considerations

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

All disposal activities must comply with federal, state and local regulations. Local regulations may be more stringent than state or national requirements.

Section 14: Transport Information

Proper shipping description:

US DOT (ground): Not Regulated

Special Provisions: None

Section 15: Regulatory Information

U.S. Federal

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	No
	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

State RegulationsState Right to Know:

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

Additional Regulatory Information: This product contains less than 0.05% isopropyl bromide.
This product is not labeled for use in California.

Section 16: Other Information

NFPA: Health: 2 Flammability: 0 Reactivity: 0
HMIS: Health: 2 Flammability: 0 Reactivity: 0 PPE: B

Prepared By: Michelle Rudnick
CRC #: 00658
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Changes since last revision: Section 3, 8, 12 & 15: removed mention of Acetonitrile 75-05-8

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.

CAS:	Chemical Abstract Service	NA:	Not Applicable
ppm:	Parts per Million	ND:	Not Determined
TCC:	Tag Closed Cup	NE:	Not Established
PMCC:	Pensky-Martens Closed Cup	g/L:	grams per Liter
PPE:	Personal Protection Equipment	lbs./gal:	pounds per gallon
TWA:	Time Weighted Average	STEL:	Short Term Exposure Limit
OSHA:	Occupational Safety and Health Administration		
ACGIH	American Association of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		