



MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: Heavy Duty Degreaser (bulk)

Product Number (s): 03097

Product Use: General purpose degreaser

Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.

885 Louis Drive

Warminster, PA 18974

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

1-905-670-2291

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

Section 2: Hazards Identification

Emergency Overview

WARNING: Vapor Harmful. May Cause Eye and Skin Irritation.
Appearance & Odor: Colorless liquid, irritating odor at high concentrations

Potential Health Effects:

ACUTE EFFECTS:

EYE: Liquid contact will produce mild eye irritation. Vapors may also cause irritation. Corneal injury is unlikely.

SKIN: Prolonged or repeated exposure can cause skin irritation, drying, flaking, defatting and possibly dermatitis or skin burns. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

INHALATION: Exposure to vapors may cause respiratory tract irritation. High concentrations may cause central nervous system depression. Symptoms include dizziness and loss of coordination and could lead to unconsciousness or death. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability.

INGESTION: Single dose toxicity is low. Swallowing an excessive amount can cause gastrointestinal disturbances and central nervous system depression. If aspirated into lungs, during swallowing or vomiting, liquid may be rapidly absorbed through the lungs and result in injury to other body systems.

CHRONIC EFFECTS: Chronic immersion of skin in this liquid may lead to absorption through skin. This may cause numbness in the immersed area. Excessive inhalation of vapors may increase sensitivity to epinephrine and increase myocardial irritability.

TARGET ORGANS: central nervous system; liver and kidney effects seen in laboratory animals

Medical Conditions Aggravated by Exposure: pre-existing skin conditions, respiratory conditions

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See Section 11 for toxicology and carcinogenicity information on product ingredients.

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Tetrachloroethylene (PERC)	127-18-4	80 - 90
COzol® 210	proprietary	10 - 20

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: Do NOT induce vomiting. Contact physician or poison control center.

Note to Physicians: Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. If burn is present, treat as any thermal burn, after decontamination. Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary. No specific antidote.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is nonflammable. However, it can be made to burn under certain conditions.

Flash Point: None (TCC)	Upper Explosive Limit: 18%
Autoignition Temperature: ND	Lower Explosive Limit: 6.7%

Fire and Explosion Data:

Suitable Extinguishing Media: Use media suitable for surrounding fire.

Products of Combustion: Hydrogen chloride, trace amounts of phosgene, chlorine, and carbon monoxide

Explosion Hazards: Containers, when exposed to heat from fire, may build pressure and rupture.

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. Do NOT breathe vapors.

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

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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: Prevent skin and eye contact. Wash hands after use and before contacting food. Avoid breathing vapors. Vapors are heavier than air and will collect in low areas or confined spaces. Make sure ventilation removes vapors from low areas. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Containers should be tightly closed while in storage. Store away from incompatible materials (see Section 10).

Aerosol Storage Level: NA

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Tetrachloroethylene	100	NE	25	100	NE		ppm
COzol® 210	200	NE	200	NE	NE		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 PVA or Viton®. 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: colorless
Odor: solvent
Odor Threshold: ND
Specific Gravity: 1.58

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Initial Boiling Point: 119.7 °F (48.7 °C)

Freezing Point: -112 °F (-80 °C)

Vapor Pressure: > 12 mmHg @ 68°F / 20°C

Vapor Density: > 4 (air = 1)

Evaporation Rate: fast

Solubility: slight

Coefficient of water/oil distribution: ND

pH: NA

Volatile Organic Compounds: wt %: 8.0 g/L: 126.4 lbs./gal: 1.05

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Avoid direct sunlight or ultraviolet sources. Avoid open flames, welding arcs, and other high temperature sources which induce thermal decomposition.

Incompatible Materials: Avoid contact with metals such as: aluminum powders, magnesium powders, potassium, sodium, and zinc powder. Avoid unintended contact with amines. Avoid contact with strong bases and strong oxidizers.

Hazardous Decomposition Products: Hydrogen chloride, trace amounts of a chlorine and phosgene

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 Toxicity:

<u>Component</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
Tetrachloroethylene	2629 mg/kg	3228 mg/kg	5200 mg/kg/4H
COzol® 210	NE	NE	NE

Chronic Toxicity:

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u>	<u>Sensitizer</u>
Tetrachloroethylene	No	Group 2A	Reasonably Anticipated to be a Carcinogen	skin	No
COzol® 210	No	No	No	eye	No

Reproductive Toxicity: No information available

Teratogenicity: No information available

Mutagenicity: Tetrachloroethylene: in vitro studies were negative
animal studies were negative

Synergistic Effects: No information available

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Section 12: Ecological Information

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

Ecotoxicity: tetrachloroethylene -- 96 Hr LC50 fathead minnow: 13.4 mg/L (flow-through)
Persistence / Degradability: Biodegradation may occur under both aerobic and anaerobic conditions.
Bioaccumulation / Accumulation: Bioconcentration potential is low (BCF less than 100).
Mobility in Environment: Potential for mobility in soil is high.

Section 13: Disposal Considerations

Waste Classification: This product is a hazardous waste for toxicity with the following potential waste codes: F001, F002, D039.
Empty containers may be recycled. Any liquid product should be managed as a hazardous waste.

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

Section 14: Transport Information

US DOT (ground): UN1897, Tetrachloroethylene mixture, 6.1, PGIII

ICAO/IATA (air): UN1897, Tetrachloroethylene mixture, 6.1, PGIII

IMO/IMDG (water): UN1897, Tetrachloroethylene mixture, 6.1, PGIII

Special Provisions: Marine Pollutant

Section 15: Regulatory Information

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: tetrachloroethylene (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

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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:
tetrachloroethylene

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): tetrachloroethylene

Canadian Regulations:

Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: D1B, D2A, D2B

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

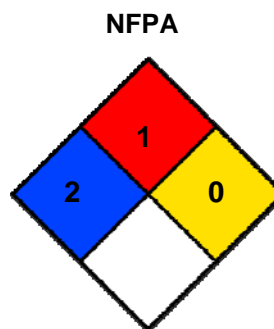
European Union Regulations:

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: None

Section 16: Other Information

HMIS® (II)	
Health:	2
Flammability:	1
Reactivity:	0
PPE:	B



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

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Changes since last revision: part number removed

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.

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CFR:	Code of Federal Regulations	ND:	Not Determined
DOT:	Department of Transportation	NIOSH:	National Institute of Occupational Safety & Health
DSL:	Domestic Substance List	NFPA:	National Fire Protection Association
g/L:	grams per Liter	NTP:	National Toxicology Program
HMIS:	Hazardous Materials Identification System	OSHA:	Occupational Safety and Health Administration
IARC:	International Agency for Research on Cancer	PMCC:	Pensky-Martens Closed Cup
IATA:	International Air Transport Association	PPE:	Personal Protection Equipment
ICAO:	International Civil Aviation Organization	ppm:	Parts per Million
IMDG:	International Maritime Dangerous Goods	RoHS:	Restriction of Hazardous Substances
IMO:	International Maritime Organization	STEL:	Short Term Exposure Limit
lbs./gal:	pounds per gallon	TCC:	Tag Closed Cup
LC:	Lethal Concentration	TWA:	Time Weighted Average
LD:	Lethal Dose	WHMIS:	Workplace Hazardous Materials Information System
NA:	Not Applicable		