



Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: Heavy Duty Degreaser (aerosol)

Product Number (s): 03095, 03095T

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: Colorless liquid, irritating odor at high concentrations

WARNING

Vapor Harmful. Contents Under Pressure

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

Potential Health 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, kidney effects seen in laboratory animals

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

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	50 - 60
Trichloroethylene (TCE)	79-01-6	40 - 50
1,2-Butylene Oxide	106-88-7	< 0.5
Carbon dioxide	124-38-9	< 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: 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 material is nonflammable according to OSHA definitions, however, it can be made to burn under certain conditions.

Flash Point:	None (TCC)	Upper Explosive Limit:	44.8%
Autoignition Temperature:	ND	Lower Explosive Limit:	8.0%

Suitable Extinguishing Media: Use media suitable for surrounding fire.

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

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 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.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F 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	
Tetrachloroethylene	100	NE	25	100	NE		ppm
Trichloroethylene	100	200 (v)	10	25	5	mfg*	ppm
1,2-Butylene oxide	N.E.	N.E.	N.E.	N.E.	2	AIHA	ppm
Carbon dioxide	5000	30000 v	5000	30,000	NE		ppm
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated							

* TCE manufacturer's internal PEL

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 NIOSH-approved cartridge respirator with organic vapor cartridges. 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
 Specific Gravity: 1.544
 Initial Boiling Point: 189 F
 Freezing Point: ND
 Vapor Pressure: > 12 mmHg @ 68 F
 Vapor Density: > 4 (air = 1)
 Evaporation Rate: > 1 (ether = 1)
 Solubility: slight
 pH: NA
 Volatile Organic Compounds: wt %: 43.9 g/L: 677.8 lbs./gal: 5.65

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 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 EFFECTS

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Trichloroethylene	LD50	10,000 mg/kg	dermal	rabbit
Trichloroethylene	LD50	4920 mg/kg	oral	rat
Trichloroethylene	LC50	12,500 ppm (4H)	inhalation	rat
Tetrachloroethylene	LD50	> 10 g/kg	dermal	rabbit
Tetrachloroethylene	LD50	2629 mg/kg	oral	rat
Tetrachloroethylene	LC50	5200 mg/kg/4H	inhalation	mouse

CHRONIC EFFECTS

Carcinogenicity:

	<u>Component</u>	<u>Result</u>
OSHA:	none listed	
IARC:	trichloroethylene	Group 2A (Probably carcinogenic)
	tetrachloroethylene	Group 2A (Probably carcinogenic)
	1,2-butylene oxide	Group 2B (Possibly carcinogenic)
NTP:	trichloroethylene	Reasonably anticipated to be a human carcinogen
	tetrachloroethylene	Reasonably anticipated to be a human carcinogen

Mutagenicity: trichloroethylene in vitro mutagenicity studies were negative
animal mutagenicity studies were predominantly negative
tetrachloroethylene in vitro studies were negative
animal studies were negative

Section 12: Ecological Information

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

Ecotoxicity: trichloroethylene -- 96 Hr LC50 fathead minnow: 44.1 mg/L (flow-through)
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

Disposal: The dispensed liquid product is a RCRA hazardous waste for toxicity with the following potential waste codes: F001, F002, D039, D040. (See 40 CFR Part 261.20 – 261.33)
Aerosol containers should be emptied and depressurized before disposal. Empty containers may be recycled. Any liquid product should be managed as a hazardous waste.

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): Consumer Commodity, ORM-D

Special Provisions: Marine Pollutant

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: tetrachloroethylene (100 lbs)
trichloroethylene (100 lbs)
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:
trichloroethylene (< 44%), tetrachloroethylene (< 54%), 1,2-butylene oxide (0.2%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): trichloroethylene, tetrachloroethylene, 1,2-butylene oxide

State RegulationsState Right to Know:

New Jersey: 79-01-6, 127-18-4, 124-38-9, 106-88-7
 Pennsylvania: 79-01-6, 127-18-4, 124-38-9, 106-88-7
 Massachusetts: 79-01-6, 127-18-4, 124-38-9, 106-88-7
 Rhode Island: 79-01-6, 127-18-4, 124-38-9, 106-88-7

Additional Regulatory Information: This product cannot be sold for use in California, Connecticut, Maine, Maryland, Massachusetts, Michigan or New Jersey. In other states with Consumer Products VOC Regulations, this product is compliant as a General Purpose Degreaser (aerosol).

Section 16: Other Information

NFPA:	Health: 2	Flammability: 1	Reactivity: 0	
HMIS:	Health: 2	Flammability: 1	Reactivity: 0	PPE: B

Prepared By: Michelle Rudnick
 CRC #: 782
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Changes since last revision: Section 15: Additional Regulatory Information revised

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		