View Section : 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME:	**Coil Cleaner (Aerosol)**
PRODUCT NAME:	**Coil Cleaner (Aerosol)**
EMAIL:	**www.crcindustries.com**
CHEMTREC:	**(800) 424-9300**
Customer Service:	**(800) 272-4620**
Technical Assistance:	**(800) 521-3168**
BUSINESS PHONE:	**(215) 674-4300**
MANUFACTURER NAME:	**CRC Industries, Inc. 885 Louis Drive Warminster, PA 18974**
PRODUCT NUMBER:	**03195**

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS#	Ingredient Percent
Trichloroethylene (TCE)	79-01-6	95 - 99 by Weight
1,2-Butylene Oxide	106-88-7	0.5 by Weight
Carbon Dioxide	124-38-9	1-5 by Weight

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:	**WARNING Vapor Harmful. Contents Under Pressure. As defined by OSHA's Hazard Communication Standard, this product is hazardous.**
Appearance & Odor:	**Colorless liquid; irritating odor at high concentrations**
EYE CONTACT:	**May cause pain and slight eye irritation. Corneal injury is unlikely. Vapors may irritate eyes.**
SKIN CONTACT:	**Prolonged or repeated exposure may cause skin irritation. May cause drying or flaking of skin. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.**
INHALATION:	**Low level exposure may cause anesthetic or irritant effects. Higher exposure levels may lead to dizziness and drunkenness. Progressively higher levels or longer exposure may cause unconsciousness and death.**
INGESTION:	**Single dose oral toxicity is considered to be low. Swallowing large amounts may cause serious injury, even death. 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 Organ Effects:	**Central nervous system. Possibly peripheral nervous system, liver or kidney.**
Hazards Comments:	**See Section 11 for toxicology and carcinogenicity information on product ingredients.**

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. Call a physician immediately.**
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. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary. No specific antidote. Supportive care.**

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)**
FLAMMABLE LIMITS - UEL:	**44.8%**
AUTOIGNITION TEMPERATURE:	**788 F**
FLAMMABLE LIMITS - LEL:	**8.0%**
EXTINGUISHING MEDIA:	**Water fog or fine spray. Carbon dioxide, dry chemical, foam. Class B fire extinguisher.**
HAZARDOUS COMBUSTION PRODUCTS:	**Hydrogen chloride, trace amounts of phosgene, chlorine, and carbon monoxide.**
PROTECTIVE EQUIPMENT:	**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. Gases may accumulate in low areas.**

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONNEL PRECAUTIONS:	Use personal protection recommended in Section 8. Do not breathe vapors
ENVIRONMENTAL DATA:	Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.
SPILL CLEAN UP MEASURES:	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:	Vapors of this product are heavier than air and will collect in low areas. Make sure ventilation removes vapors from low areas. Do not eat, drink or smoke while using this product.
STORAGE:	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

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 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, and Viton. Also , use full protective clothing if there is prolonged or repeated contact of liquid with skin.
Ingredient Guideline Notes:	N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated * TCE manufacturer's internal PEL
Ingredient:	Trichloroethylene (TCE)
Guideline Info:	OSHA TWA: 100; OSHA STEL: 200 (v); ACGIH TWA: 10; ACGIH STEL: 25; OTHER TWA: 5; SOURCE: mfg*; UNIT: ppm
Ingredient:	1,2-Butylene oxide
Guideline Info:	OSHA TWA: N.E.; OSHA STEL: N.E.; ACGIH TWA: N.E.; ACGIH STEL: N.E.; OTHER TWA: 2; SOURCE: AIHA; UNIT: ppm
Ingredient:	Carbon dioxide
Guideline Info:	OSHA TWA: 5000; OSHA STEL: 30000 v; ACGIH TWA: 5000; ACGIH STEL: 30,000; OTHER TWA: N.E.; UNIT: ppm

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

VOLATILE ORGANIC COMPOUNDS:	wt % : 97.0 g/L : 1400 lbs./gal: 11.66
ODOR:	Irritating odor at high concentrations
SPECIFIC GRAVITY:	1.46 @ 70 deg F
INITIAL BOILING POINT:	189 F
FREEZING POINT:	ND
VAPOR PRESSURE:	60 mmHg @ 68 deg F (20 deg C)
VAPOR DENSITY:	4.53 (air = 1)
EVAPORATION RATE:	> 1 (ether = 1)
SOLUBILITY:	0.1 g / 100 g @ 25 C (in water)
pH:	NA
PHYSICAL STATE:	Liquid
COLOR:	Colorless

SECTION 10 - STABILITY and REACTIVITY

STABILITY:	Stable
CONDITIONS TO AVOID:	Avoid direct sunlight or ultraviolet sources. Avoid open flames, welding arcs, or 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
DANGEROUS REACTIONS:	No

SECTION 11 - TOXICOLOGICAL INFORMATION

OSHA:	trichloroethylene hazard communication carcinogen 1,2-butylene oxide hazard communication carcinogen
IARC:	trichloroethylene 2A (probably carcinogenic) 1,2-butylene oxide 2B (possibly carcinogenic)
NTP:	trichloroethylene Reasonably anticipated to be a carcinogen
MUTAGENICITY:	trichloroethylene in vitro mutagenicity studies were negative animal mutagenicity studies were predominantly negative 1,2-butylene oxide in vitro mutagenicity studies were positive animal mutagenicity studies were negative
Toxicological Comments:	Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.
Chemical Name:	trichloroethylene
ACUTE TOXICITY (Ingredient):	Test: LD50; Result: 10,000 mg/kg; Route: dermal; Species: rabbit
Chemical Name:	trichloroethylene

ACUTE TOXICITY (Ingredient):	**Test: LD50; Result: 4920 mg/kg; Route: oral; Species: rat**
Chemical Name:	**trichloroethylene**
ACUTE TOXICITY (Ingredient):	**Test: LC50; Result: 12,500 ppm (4H); Route: inhalation; Species: rat**
Chemical Name:	**1,2-butylene oxide**
ACUTE TOXICITY (Ingredient):	**Test: LD50; Result: 500 mg/kg; Route: oral; Species: rat**

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:	**Material is moderately toxic to aquatic organisms on an acute basis.**
Persistence / Degradability:	**Biodegradation may occur under both aerobic and anaerobic conditions.**
BIOACCUMULATION:	**Bioconcentration potential is low (BCF less than 100).**
MOBILITY:	**Potential for mobility in soil is high.**

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:	**The dispensed liquid product is a RCRA hazardous waste for toxicity with the following potential waste codes: U228, F001, F002, 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

DOT:	**Consumer Commodity, ORM-D**
Special Provisions:	**None**

SECTION 15 - REGULATORY INFORMATION

ADDITIONAL INFORMATION:	**None**
STATE RIGHT TO KNOW:	**New Jersey: 79-01-6, 106-88-7, 124-38-9 Pennsylvania: 79-01-6, 106-88-7, 124-38-9 Massachusetts: 79-01-6, 106-88-7, 124-38-9 Rhode Island : 79-01-6, 106-88-7, 124-38-9**
California Proposition 65:	**This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: trichloroethylene**
SECTION 112 HAPS:	**trichloroethylene, 1,2-butylene oxide**
SECTION 313:	**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 (96.5%), 1,2-butylene oxide (0.5%)**
311/312 Hazard Categories:	**Fire Hazard No Reactive Hazard No Release of Pressure Yes Acute Health Hazard Yes Chronic Health Hazard Yes**
SECTION 302 EHS:	**None**
TSCA INVENTORY STATUS:	**All ingredients are either listed on the TSCA inventory or are exempt.**
CERCLA:	**Reportable Quantities (RQ's) exist for the following ingredients: 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.**

SECTION 16 - ADDITIONAL INFORMATION

NFPA - REACTIVITY:	**0**
NFPA - HEALTH:	**2**
NFPA - FIRE:	**1**
DISCLAIMER:	**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.**
ABBREVIATIONS:	**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 PEL: Permissible Exposure Limit ACGIH American Association of Governmental Industrial Hygienists NIOSH National Institute of Occupational Safety & Health**
Revision Changes:	**Section 8 - exposure guidelines**
MSDS REVISION DATE:	**5/3/2007**
CRC #:	**458**
MSDS AUTHOR:	**Michelle Rudnick**
HMIS - HEALTH:	**2**
HMIS - FLAMMABILITY:	**1**
HMIS - REACTIVITY:	**0**
HMIS - PERSONAL PROTECTION:	**B**