

CYCLO[®] INDUSTRIES, LLC

MATERIAL SAFETY DATA SHEET

10190 Riverside Drive, Palm Beach Gardens, Florida 33410-4881
Phone: (561) 775-9600

First Aid Emergency: (800) 752-7869 Ext. 10 or (312) 906-6194 Ext. 10
Shipping Emergency: (800) 424-9300 or (703) 527-3887

This MSDS is being provided to your company for the purpose of providing current health and safety information to your management and for your employees who work with this product. Please read the information on these sheets and then provide this information to those people at your company whose responsibility it is to comply with FEDERAL, STATE and COMMUNITY RIGHT TO KNOW regulations. Also, make this information available to any employee who requests it.

If Cyclo Industries, LLC considers the formula of this product to be a trade secret, the exact chemical names of the ingredient(s) and the percentages in which they are combined will not appear in the body of this sheet. The exact composition is available upon request to physicians, industrial hygienists and other health professionals.

SECTION 1 - PRODUCT IDENTIFICATION

Product Name: C-112 Cyclo[®] Brake & Parts Clean[®] Non-Flammable Common Code: #L-08414

Hazardous Material Descriptions:

DOT & IMDG - Toxic Liquid, Organic, N.O.S. (Dichloromethane & Perchloroethylene), Class 6.1,
UN#2810, III

HMIS Code: HEALTH=2 FLAMMABILITY=0 REACTIVITY=0

SECTION 2 - PHYSICAL DATA

Boiling Range: 104°F - 250°F

Specific Gravity (H₂O=1): 1.47

Vapor Pressure: mm Hg @ TEMP

Vapor Density: Heavier Than Air

Methylene Chloride 420 77

Trichloroethylene 60 68

Percent Volatile By Volume (%): 100

Perchloroethylene 13 68

Solubility in Water: Nil

Evaporation Rate: Slower Than Ether

Appearance and Odor: Clear liquid, mild, ethereal

Volatile Organic Compound (VOC) (as packaged minus water): 25%

SECTION 3 - HAZARDOUS INGREDIENTS

CAS Reg. No.	Material	Weight Percent	PEL / TLV
75-09-2	*Methylene Chloride, Dichloromethane	25 – 35	500 ppm / OSHA PEL 50 ppm / ACGIH TLV 1000 CEIL
79-01-6	*Trichloroethylene, Trichlor, TCE	20 – 30	100 ppm / OSHA PEL 50 ppm / ACGIH TLV 100 STEL
127-18-4	*Perchloroethylene	40 – 50	100 ppm / OSHA PEL 25 ppm / ACGIH TLV 100 STEL

* Indicates toxic chemicals subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point: Not applicable

Method Used: Not applicable

Flammable Limits In Air By Volume: Lower = 12 Upper = 19

Extinguishing Media: Foam, alcohol foam, CO₂, dry chemical, water fog.

Special Fire Fighting Procedures:

Water spray may be ineffective. Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat. If water is used, fog nozzles preferred. Wear goggles and self-contained breathing apparatus.

Unusual Fire and Explosion Hazards:

Keep containers tightly closed. Isolate from heat and open flame. Closed containers may explode when exposed to extreme heat. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent. Obtain medical attention.

SECTION 5 - HEALTH HAZARD DATA**Effects of Overexposure:**

Ingestion: Not a likely route of exposure.
 Inhalation: Respiratory irritation, headache, nausea, fatigue, drowsiness, impaired coordination.
 Skin Contact: Contact may dry the skin. Prolonged contact may cause irritation. Not easily absorbed. Solvent action can dry and defat the skin causing the skin to crack, leading to dermatitis.
 Eye Contact: Liquid or vapor can irritate. Prolonged contact may lead to corneal damage.

Health Hazards (Acute and Chronic):

Acute: Eye irritant, skin irritant, narcotic in high concentrations.
 Chronic: Liver and kidney disease. Skin irritation and dermatitis. Chronic overexposure have caused liver and kidney toxic effects in experimental animals. Can cause central nervous system effects, irregular heartbeat and possible death if too much is breathed. Deliberate concentration and inhalation of contents may be harmful or fatal. Can elevate carboxyhemoglobin levels following exposure.

SECTION 5 - HEALTH HAZARD DATA continued

Carcinogenicity: NTP Carcinogen=Yes; IARC Monographs=Yes; OSHA Regulated=Yes
This product contains chemicals known to the State of California to cause cancer.

Medical Conditions Generally Aggravated By Exposure:

Acute and chronic liver and kidney disease, anemia, coronary disease or rhythm disorders of the heart.

First Aid Procedures:

Ingestion: Do not induce vomiting. Seek immediate medical advise and/or attention. Never give anything by mouth to an unconscious person.

Skin Contact: Wipe off with towel. Wash with soap and water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air. Administer oxygen if needed. Apply artificial respiration if breathing has stopped. Get medical attention. Do not administer adrenalin to an affected person.

Eye Contact: Wash immediately with large volumes of fresh water for at least 15 minutes. Get medical attention.

SECTION 6 - REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Application to hot surfaces.

Incompatibility (materials to avoid): Oxidizing agents.

Hazardous Decomposition Products:

May produce fumes when heated to decomposition. Fumes may contain carbon monoxide, chlorine and hydrogen chloride.

Hazardous Polymerization: Will not occur.

SECTION 7 - SPECIAL PROTECTION INFORMATION

Respiratory Protection:

In restricted areas use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use approved air line type respirator or hood. Self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Ventilation:

Sufficient to prevent inhalation of solvent vapors. General dilution and/or local exhaust ventilation in volume or pattern to keep PEL/TLV of most hazardous ingredient below acceptable limit and LEL below stated limit.

Protective Gloves: Solvent resistant required for prolonged or repeated contact.

Eye Protection: Safety glasses with splash guards or full face shield.

Other Protective Equipment: Solvent resistant apron.

Work/Hygienic Practices: Eye washes and safety showers in the workplace are recommended.

SECTION 8 - SPILL OR LEAK PROCEDURES

Steps To Be Taken In Case Material Is Released or Spilled:

Avoid breathing vapors. Ventilate area. Dike area to contain spill. Clean up area with absorbent material and place in closed containers for disposal.

SECTION 8 - SPILL OR LEAK PROCEDURES continued

Waste Disposal Method:

Dispose of in accordance with local, state and federal regulations. Before attempting clean up, refer to other sections of this MSDS for hazard caution information.

CERCLA (Superfund) Reportable Quantity (in lb.): 300

SECTION 9 - SPECIAL PRECAUTIONS

Precautions To Be Taken In Handling and Storage:

Store and use in cool, dry, well-ventilated areas. Avoid contact with hot metal surfaces. Keep containers closed when not in use. Keep away from heat, sparks, flame and other sources of ignition that may cause product decomposition. Do not let vapors accumulate.

Other precautions:

Keep closure tight and container upright to prevent leakage. Open container slowly. Ground containers when filling or emptying. Do not get in eyes. Avoid skin contact and contact with clothing. Do not weld or flame-cut an empty drum. Do not take internally.

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