

**SECTION 7 — SPECIAL PROTECTION INFORMATION continued****Protective Gloves:**

Nitrile rubber, polyvinyl alcohol and viton are recommended as fair to excellent resistance to the solvents contained.

**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 recommended. Protective clothing should be clean, available daily and put on before work.

**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.

**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.

**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 away from excessive heat or open flame. Contents under pressure. Do not puncture or incinerate container or store above 120°F.

**Other precautions:**

The storage of non-flammable products with non-flammable pressurizing agent, in cartons, is the same as for ordinary canned goods in cartons. OSHA-Ceiling and ACGIH-STEL concentrations shall not be exceeded over a 15 minute exposure period up to 4 times per day. OSHA peak exposure standards of 300 ppm for Trichloroethylene and perchloroethylene shall not be exceeded for 5 minutes in any 2 hour exposure period.

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## 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. (USA only)

Outside USA call collect 1 (312) 942-5969 Ext. 10

Shipping Emergency: (800) 424-9300

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-32 Cyclo Brake & Parts Clean®      Common Code: L-08419

Hazardous Material Description: DOT - Aerosols, Consumer Commodity ORM-D, Class 55  
IMDG - Aerosols, Limited Quantity, Class 2, UN1950

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

**SECTION 2 — PHYSICAL DATA**

Boiling Range: 104°F - 250°F      Specific Gravity (H<sub>2</sub>O=1): 1.44

Vapor Pressure: mmHg @ Temp      Vapor Density: Heavier than air

Perchloroethylene 13      68

Methylene Chloride 420      77

Trichloroethylene 60      68

Carbon Dioxide 38650      60

Percent Volatile By Volume (%): 100%

Solubility in Water: Nil

Evaporation Rate (Butyl Acetate = 1): Slower than ether

Appearance and Odor: Aerosol product; colorless liquid; mildly sweet

Volatile Organic Compound (VOC's) Volume By Weight: 28%

**SECTION 3 — HAZARDOUS INGREDIENTS**

CAS Reg. No.	Material	Percentage	Exposure Limits
127-18-4	* Perchloroethylene	35 - 45	100 ppm / OSHA PEL 25 ppm / ACGIH TLV 100 STEL
79-01-6	* Trichloroethylene, Trichlor, TCE	20 - 30	100 ppm / OSHA PEL 50 ppm / ACGIH TLV 100 STEL
75-09-2	* Methylene Chloride, Dichloromethane	25 - 35	25 ppm, 8 hr. TWA / OSHA PEL 125 ppm, 15 min. / STEL 50 ppm / ACGIH TLV
124-38-9	Carbon Dioxide	4	10,000 ppm / OSHA PEL 5,000 ppm / ACGIH TLV

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

OSHA-PEL's and ACGIH-TLV's are 8-hour time weighted averages (TWA). OSHA PEL's listed are transitional limits as they currently appear in the air contaminant standards (29 CFR 1910.1000, Table Z-2). See Section 9 for more data.

**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, CO<sub>2</sub>, dry chemical, water fog.

**Special Fire Fighting Procedures:**

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 are preferred. Wear goggles and self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:**

Keep containers from heat and open flame. Closed containers may explode when exposed to extreme heat. Toxic gases and vapors (such as hydrogen chloride, phosgene and carbon monoxide) may be released in a fire. Symptoms may not be readily apparent. Obtain medical attention.

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

- Ingestion: Not a likely route of exposure. If swallowed, do not induce vomiting. Seek immediate medical advice and/or attention.
- Inhalation: Respiratory irritation, headache, nausea, fatigue, drowsiness, impaired coordination. Individuals with heart diseases may be at increased risk of developing arrhythmia or other problems related to elevated carboxyhemoglobin levels.
- Skin Contact: Contact may dry the skin. Prolonged contact may cause irritation. Solvent action can dry and defat the skin causing the skin to crack, leading to dermatitis.

**SECTION 5 — HEALTH HAZARD DATA continued**

Eye Contact: Liquid or vapor can irritate. Prolonged contact may lead to corneal damage.

**Health Hazards (Acute and Chronic):**

Chronic exposure in excess of the occupational exposure limits have been associated with liver and kidney effects in experimental animals and may be associated with central nervous system effects. Irregular heartbeat and possibly death can result from breathing high concentrations. Deliberate concentration and inhalation of contents can be fatal or harmful. Exposure may result in temporary elevation of carboxyhemoglobin levels.

**Carcinogenicity: NTP Carcinogen=Yes; IARC Monographs=Yes; OSHA Regulated=Yes**

This product contains chemicals known to the State of California to cause cancer. This product contains materials which have been associated with adverse reproductive effects, carcinogenicity and mutagenicity in animals. Methylene chloride and perchloroethylene and ranked as potential carcinogens by EPA.

Medical Conditions Generally Aggravated By Exposure: Coronary disease or rhythm disorders of the heart.

**First Aid Procedures:**

- Ingestion: Do not induce vomiting. Immediately contact a physician or a poison control center.
- Skin Contact: Wash skin with plenty of water. Remove contaminated clothing and shoes.
- Inhalation: Remove to fresh air and call emergency medical care. If not breathing, give artificial respiration. If breathing is difficult, get medical attention immediately.
- Eye Contact: Immediately flush eyes with running water for at least 15 minutes and get medical attention.

**SECTION 6 — REACTIVITY DATA**

Stability: Stable                      Conditions to Avoid: Application to hot surfaces.

Incompatibility (materials to avoid): Unknown.

**Hazardous Decomposition or Byproducts:**

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 a supplied air respirator or hood. Respirators should be used in accordance with employer's respirator program and respirator manufacturer's directions.

**Ventilation:**

Sufficient to prevent inhalation or 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.