

CYCLO[®] INDUSTRIES, LLC

MATERIAL SAFETY DATA SHEET

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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: Cyclo[®] C-86 Hi-Tech Electronic Contact Cleaner Common Code #: VIA-0029

Hazardous Material Description: DOT = Aerosol, Consumer Commodity ORM-D
 IMDG = Aerosols, 2 UN1959, Ltd. Qty.

HMIS Code: Health = 1 Flammability = 2 Reactivity = 0

SECTION 2 — PHYSICAL DATA

Boiling Range: 89.6°F - 177°F (32°C -80°C) Specific Gravity (H₂O=1): 1.19

Vapor Pressure:	<u>mm Hg @ Temp.</u>	
1,1-Dichloro-1-Fluoroethane	500	68
2-Propanol, Isopropyl Alcohol	33	68
Carbon dioxide	38650	60

Vapor Density: Heavier than air Solubility in Water: Nil

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

Appearance and Odor: Aerosol product.

SECTION 3 — HAZARDOUS INGREDIENTS

CAS Reg. No.	Material	Percentage	Exposure Levels
1717-00-6	1,1-Dichloro-1-fluoroethane	80 – 100	Not established = OSHA PEL Not established = ACGIH TLV
67-63-0	2-Propanol, Isopropyl alcohol	0 – 10	400 ppm = OSHA PEL 400 ppm = ACGIH TLV
124-38-9	Carbon dioxide	0 – 10	10000 ppm = OSHA PEL 5000 ppm = ACGIH TLV

*** No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present ***

SECTION 4 — FIRE AND EXPLOSION HAZARD DATA

Flash Point: None

Method Used: TCC

Flammable Limits In Air by Volume:

Lower Explosive Level (LEL) = 2

Upper Explosive Level (UEL) = 15.5

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: Closed containers may explode from internal pressure build-up when exposed to extreme heat and discharge contents. Liquid content of container will not support combustion. 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: Narcosis, asphyxiation, loss of coordination, increased pulse rate, cardiac sensitization, deeper respiration and cardiac arrhythmia. Do not give ephinephrine or similar drugs.

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: Prolonged contact may cause irritation due to defatting.

Health Hazards (Acute and Chronic): ACUTE: Eye irritant, skin irritant, narcotic in high concentrations.

CHRONIC: Not known.

Carcinogenicity: NTP Carcinogen = No IARC Monographs = No OSHA Regulated = No

Medical Conditions Generally Aggravated By Exposure: None known.

SECTION 5 — HEALTH HAZARD DATA continued**First Aid Procedures:**

- Ingestion:** If swallowed, do NOT induce vomiting. Seek immediate medical advice and/or attention.
- 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.
- 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. Storage above 120°F. Exposure to open flame.

Incompatibility (materials to avoid): Freshly abraded aluminum surfaces; aluminum, magnesium and zinc powders; chemically active metals such as Na, K or Ca.

Hazardous Decomposition Products: Decomposition fumes may contain carbon monoxide, halogen acids and possibly carbonyl halides such as phosgene.

Hazardous Polymerization: Will not occur.

SECTION 7 — SPECIAL PROTECTION INFORMATION

Respiratory Protection: None under normal use. Avoid breathing vapors. 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: None under normal use. Solvent resistant required for prolonged or repeated contact.

Eye Protection: None under normal use. However, use of safety glasses with splash guards or full face shield is recommended.

Other Protective Equipment: None under normal use. However, use of solvent resistant aprons or other clothing is recommended.

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. Remove all sources of ignition. 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. Do not store above 120°F. Do not puncture or incinerate (burn) cans. Do not stick pin, nail or any other sharp object into opening on top of can. Do not spray in eyes. Do not take internally. See product label for additional information.

Other precautions: The storage of non-flammable products with non-flammable or flammable pressurizing agent, in cartons, is the same as for ordinary canned goods in cartons.

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