

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: C-DFA, C-24, C-270 & C-272 Cyclo[®] Anti-Gel Diesel Fuel Treatment

Hazardous Material Description: DOT = Non-Hazardous Fluids, not regulated by D.O.T.
IMDG = Non-Hazardous Auto Care Product

NFPA Codes: HEALTH = 2 FLAMMABILITY = 2 REACTIVITY = 0

SECTION 2 — PHYSICAL DATA

Boiling Range: 365 - 419°F (185 - 215°C) Specific Gravity (H₂O=1): 0.768

Vapor Pressure: Not available Vapor Density: Not available

Solubility in Water: Insoluble Viscosity: 2 @ 25°C

Evaporation Rate (Butyl Acetate = 1): 0.04

Appearance and Odor: Light amber liquid, hydrocarbon and somewhat fruity odor.

Volatile Organic Compound (VOC): 6.5 lb./gal. @ 60°F

SECTION 3 — HAZARDOUS INGREDIENTS

CAS Reg. No.	Material	Percentage	Exposure Limits
64742-96-7	* Mineral Spirits	60 - 80	100 ppm OSHA PEL 100 ppm ACGIH TLV
64742-94-5	* Heavy Aromatic Naphtha	15 – 25	Not Established

* 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: 145°F (63°C) Method Used: TCC

Flammable Limits in Air % by Volume:

Lower Explosion Limit (LEL): Not established Upper Explosion Limit (UEL): Not established

Extinguishing Media: Use water fog, foam, carbon dioxide, dry chemical

Special Fire Fighting Procedures: Do not use a direct stream of water. Product will float and can be re-ignited on surface of water. Caution. Combustible. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

Unusual Fire and Explosion Hazards: Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture. Container areas exposed to direct flame contact should be cooled with large quantities as needed to prevent weakening of container structure.

Hazardous Combustion Products: Carbon monoxide and carbon dioxide are produced on combustion as well as nitrogen.

SECTION 5 — HEALTH HAZARD DATA

Effects of Overexposure:

Ingestion: Liquid can directly enter the lungs (aspiration) when swallowed or vomited. Serious lung damage and possibly fatal chemical pneumonia (chemical pneumonitis) can develop if this occurs.

Inhalation: Vapors may cause irritation to nose, throat and respiratory tract. High vapor concentrations may result in central nervous system (CNS) depression. Symptoms may include drowsiness, weakness, headache, dizziness and nausea.

Skin Contact: Expected to be a skin irritant. Prolonged or repeated liquid contact can result in defatting and drying of the skin, which may result in skin irritation and dermatitis.

Eye Contact: May cause temporary discomfort or moderate irritation.

Aggravated Medical Conditions: Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product.

Other Health Effects: Chronic: This product contain naphthalene. Literature data indicates that repeated or prolonged exposure by inhalation can cause kidney, eye nerve damage, corneal ulceration, liver damage and cataracts of the eye.

SECTION 5 — HEALTH HAZARD DATA continued

Neurotoxicity: Repeated exposures that cause acute neurological effects may also cause long-term neurological deficits in humans.

Carcinogenicity: NTP = No; IARC MONOGRAPHS = No; OSHA REGULATED = No

First Aid Procedures:

Ingestion: Do not induce vomiting. Give two (2) glasses of water (16 oz.). If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention. Do not give anything by mouth to an unconscious person.

Skin Contact: Remove contaminated clothing/shoes. Wipe off excess material from exposed area. Flush with large amounts of water for at least 20 and follow by washing with soap for 15 minutes. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

Eye Contact: Flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention.

Note to Physician: The main hazard following accidental ingestion is aspiration of the liquid into the lungs producing chemical pneumonitis. If more than 2.0 mL/kg has been ingested and vomiting has not occurred, emesis should be induced with supervision. Keep victim's head below hips to prevent aspiration. If symptoms such as a loss of gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage using a cuffed endotracheal tube should be considered.

SECTION 6 — REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Excessive heat, open flames and all ignition sources.

Incompatibility (materials to avoid): Contact with strong oxidizing agents and acids.

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur.

Sensitive to Mechanical Impact: Yes

SECTION 7 — SPECIAL PROTECTION INFORMATION

Respiratory Protection: Avoid prolonged or repeated breathing of vapors. If exposure may or does exceed occupational exposure limits (Section 3) use a NIOSH-approved respirator. Use a NIOSH-approved chemical cartridge respirator with organic vapor cartridges or use a NIOSH-approved supplied-air respirator. For high airborne concentrations, use a NIOSH-approved supplied-air respirator, either self-contained or airline breathing apparatus, operated in a positive pressure mode.

SECTION 7 — SPECIAL PROTECTION INFORMATION continued

Ventilation: Use explosion-proof ventilation required to control vapor concentrations. Concentrations in air should be maintained below the recommended threshold limit value if unprotected personnel area involved. Local ventilation recommended where mechanical ventilation is ineffective in controlling airborne concentrations below the recommended occupational exposure limit. Mechanical ventilation is recommended for all indoor situations to control fugitive emissions.

Skin Protection: Avoid prolonged contact with skin. Impervious gloves (viton, nitrile) should be worn at all times when handling this material. In confined spaces or where the risk of skin exposure is much higher, impervious clothing should be worn.

Eye Protection: Avoid contact with eyes. Wear safety glasses or goggles as appropriate.

Hygienic Work Practices: Eye washes and safety showers in the workplace are recommended. Air dry contaminated clothing in a well-ventilated area then launder before reusing.

Occupational Exposure Limits: Stoddard solvent – 100 ppm, 525 mg/m³ (TLV/TWA) ACGIH.

SECTION 8 — SPILL OR LEAK PROCEDURES

Steps To Be Taken In Case Material Is Released or Spilled: Caution: Combustible. Eliminate potential sources of ignition. Handling equipment must be grounded. Isolate hazard area and restrict access. Try to work upwind of spill. Avoid direct contact with material. Wear appropriate respirator and other protective clothing. Shut off source of lead only if safe to do so. Dike and contain land spills; contain water spills by booming. Use water fog to knock down vapors; contain runoff. For large spills, remove by mechanical means and place in containers for disposal. For small spills soak up residue with an absorbent such as clay sand or other suitable. Place in non-leaking containers and seal tightly for proper disposal. Flush area with water to remove trace residue. Dispose of flush solution.

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 information.

SECTION 9 — SPECIAL PRECAUTIONS

Precautions To Be Taken In Handling and Storage: Combustible. Hot surfaces may be sufficient to ignite liquid even in the absence of sparks or flames. Vapors may accumulate and travel to distant ignition sources and flashback. Empty containers are hazardous, may contain flammable/explosive dusts, residues or vapors. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone. Do not pressurize drum containers to empty them. Air-dry contaminated clothing in a well-ventilated area before laundering. Avoid breathing vapors and prolonged or repeated contact with skin. Launder contaminated clothing prior to reuse. Use good personal hygiene. Store in a cool, dry, well-ventilated area away from heat and ignition sources. Use explosion-proof ventilation to prevent vapor accumulation.

Other precautions: Keep out of the reach of children. Empty containers can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment.

SECTION 10 — REGULATORY INFORMATION

EPCRA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE (EHS)

None of the components of this product are required to be reported under Sec. 302 of EPCRA (EHS).

CERCLA SECTION 304 EXTREMELY HAZARDOUS SUBSTANCE (“RQ” CHEMICALS)

None of the components of this product are required to be reported under Sec. 304 of CERCLA.

SUPERFUND AMENDMENTS AND REAUTHORIZATION OF ACT OF 1986 (SARA), TITLE III SECTION 311/312

All components of this product are required to be reported by SARA Sec. 311/312: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard.

PENNSYLVANIA RIGHT TO KNOW, HAZARDOUS SUBSTANCE SURVEY

None of the components of this product are required to be reported on the HSSF.

TOXIC SUBSTANCES CONTROL ACT (TSCA) Status:

All of the materials are listed on the EPA/TSCA Inventory of Chemical Substances.

Date entered: 11/14/96

Date revised: 12/21/01

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