

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-201 Cyclo[®] Premium IPA Fuel Dryer & Anti-Freeze Common Code #: IPA55

Hazardous Material Description: DOT - Consumer Commodity ORM-D
IMDG - Dangerous Goods in Limited Quantity (Isopropanol), Class 3.2, UN1219, II

NFPA Codes: HEALTH = 2 FIRE = 3 REACTIVITY = 0

SECTION 2 — PHYSICAL DATA

Boiling Point: 180°F Specific Gravity: 0.79

Vapor Pressure: 32 mm HG @ 68°F Vapor Density: >1

Percent Volatile By Volume (%): 100% Solubility in Water: Complete

Water Reactive: No Evaporation Rate (Butyl Acetate = 1): 1.4

Appearance and Odor: Clear liquid, medicinal alcohol odor

Volatile Organic Compound (VOC) (as packaged minus water): 100%

SECTION 3 — HAZARDOUS INGREDIENTS

CAS Reg. No.	Material	Percentage	Exposure Limits
67-63-0	Isopropyl Alcohol	90 - 100	400 ppm / OSHA PEL 400 ppm / ACGIH TLV 500 ppm / TLV/STEL

Acute Toxicity Data:

Oral LD50=5840 mg/kg (rat), Dermal LD50=13000 mg/kg (rabbit), Inhalation LC50=12000 ppm (rat) 8 hr.

SECTION 4 — FIRE AND EXPLOSION HAZARD DATA

Flash Point: 53°F Method Used: TCC

Flammable Limits In Air % By Volume at:

Lower Explosion Limit: 2 Upper Explosion Limit: 12

Extinguishing Media: Water fog, alcohol foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Clear fire area of unprotected personnel. 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 fire 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 of water as needed to prevent weakening of container structure.

SECTION 5 — HEALTH HAZARD DATA

The health effects noted below are consistent with requirements under the OSHA Hazard Communication Standard (29 CFR 1910.12000)

Effects of Overexposure:

Ingestion: Irritating to the gastrointestinal tract, causing abdominal pain and vomiting, sometimes bloody. Ingestion may cause CNS depression, low blood pressure, rapid heart beat and liver damage.

Inhalation: May cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system (CNS) depression.

Skin Contact: Mildly irritating to the skin.

Eye Contact: Moderately irritating to eyes.

Signs and Symptoms: Irritation as noted above. Early to moderate CNS (Central Nervous System) depression may be evidenced by giddiness, headache, dizziness and nausea; in extreme cases, unconsciousness, respiratory depression and death may occur. Liver damage may be evidenced by loss of appetite, jaundice (yellowish skin color) and sometimes pain in the upper abdomen on the right side.

Aggravated Medical Conditions: Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from preexisting disorders may be aggravated by exposure to this product.

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

First Aid Procedures:

Ingestion: Do not give liquids if victim is unconscious or very drowsy. Otherwise, give no more than 2 glasses of water and induce vomiting by giving 30 cc (2 tablespoons) syrup of ipecac.* If ipecac is unavailable, give 2 glasses of water and induce vomiting by touching finger to back of victim's throat. Keep victim's head below hips while vomiting. Get medical attention.

Skin Contact: Flush with water. Remove contaminated clothing. If irritation occurs, get medical attention.

Inhalation: Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Get medical help.

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

SECTION 5 — HEALTH HAZARD DATA continued

Note to Physician: * If victim is a child, give no more than 1 glass of water and 15 cc (1 tablespoon) syrup of ipecac. If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

SECTION 5-B — SUPPLEMENTAL HEALTH INFORMATION

IPA: In response to a TSCA test rule, several studies of IPA have now been completed. The studies and their results are as follows 1) Both mutagenicity studies, the mouse micronucleus and CHD assays, were negative 2) Rat and rabbit oral teratogenicity and developmental toxicology: A) There was no evidence that IPA caused teratogenicity in rats or rabbits. B) Developmental toxicity was seen in rats as 1200 mg/kg (Evidenced by decreased body weight**) While no developmental toxicity was seen in the rabbit study. For rats, the NOAEL was 400 mg/kg; for rabbits, 480 mg/kg. This work also identified pregnant rabbits to be approximately eight times more sensitive to IPA=s lethal effects than non-pregnant rabbits**. Other test rule related studies: 3) Rat oral reproductive toxicity; In the rat reproductive toxicity study, the NOAEL for parental female body weight decrease was 100 mg/kg. 4) In rat inhalation neurotoxicity and oral developmental neurotoxicity studies, there was no evidence that IPA caused neurotoxicity in adults (max. dose 5000 ppm) or offspring (max. dose 1200 mg/kg). 5) Subchronic rat and mouse inhalation toxicity; The subchronic NOAEL was 500 ppm based on clinical signs of CNS depression (both species) and increased body weight and blood effects (rat only) seen at 1500 ppm.

NOTE: The information tagged by A@ above were submitted to EPA under the requirements of TSCA 8(E).

SECTION 6 — REACTIVITY DATA

Stability: Stable

Incompatibility (materials to avoid): Do not store or handle in aluminum equipment at temperatures above 120°F.

Hazardous Decomposition Products: Carbon monoxide and unidentified organic compounds may be formed during combustion.

Hazardous Polymerization: Will not occur.

SECTION 7 — SPECIAL PROTECTION INFORMATION

Respiratory Protection: If exposure may or does exceed occupational exposure limits, use a NIOSH approved respirator to prevent over exposure. In accord with 29 CFR 1910.134, use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

Ventilation: Use explosion proof ventilation as required to control vapor concentrations.

Skin Protection: Avoid prolonged or repeated contact with skin. Wear chemical resistant gloves and other clothing as required to minimize contact. Test data from published literature and/or glove and clothing manufacturers indicate the best protection is provided by nitrile, neoprene and natural rubber gloves.

Eye Protection: Avoid contact with eyes. Wear chemical goggles if there is likelihood of contact with eyes.

Other Protective Equipment: Eye wash fountains and safety showers should be available for emergency use.

Hygienic Work Practices: Wash with soap and water before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before using again.

SECTION 8 — SPILL OR LEAK PROCEDURES

Steps To Be Taken In Case Material Is Released or Spilled: Warning FLAMMABLE. Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. LARGE SPILLS: Evacuate the hazard area of unprotected personnel. Wear appropriate respirator and protective clothing. Shut off sources of leak only if safe to do so. Dike and contain. If vapor cloud forms, water fog may be used to suppress; contain run off. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking containers for proper disposal. Flush area with water to remove trace amounts of residue. SMALL SPILLS: Take up with absorbent material and place in non-leaking containers; seal tightly for proper 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 information.

EPCRA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE (EHS):

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

CERCLA SECTION 304 HAZARDOUS SUBSTANCE (ARQ@ CHEMICALS):

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

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III SECTION 303:
Isopropyl Alcohol (67-63-0)

PENNSYLVANIA RIGHT TO KNOW, HAZARDOUS SUBSTANCE SURVEY:

Isopropyl Alcohol (67-63-0) E

SECTION 9 — SPECIAL PRECAUTIONS

Precautions To Be Taken In Handling and Storage: Keep liquid and vapor away from heat, sparks and flame. Surfaces that are sufficiently hot may ignite even liquid product in the absence of sparks and flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.

Other precautions: Vapors may accumulate and travel to ignition sources distant from the handling site; flash fire can result. Keep containers closed when not in use. Use with adequate ventilation. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers. Do not pressurize drum containers to empty them, static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment.

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