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SB50603

MSDS	MATERIAL SAFETY DATA SHEET
American Recorder Technologies, Inc. 1872 Angus Avenue Simi Valley, CA 93063 Voice: 805-527-9580 M-F, PST Fax: 805-527-1433 Email: info@americanrecorder.com	Emergency Contact Information: PERS-ER DOMESTIC SHIPMENTS: 800 633-8253 INTERNATIONAL: (1) 801 629-0667
MODEL NUMBER & CAPACITY: DSCK-TO-317 (0.5 ounces) DSCK-TO-320 (0.5 ounces) DSCK-TO-324 (0.5 ounces) OCF-TO-0.5 (0.5 ounces)	Ethyl Alcohol (Liquid) UN# 1987 Ethyl Alcohol, Alcohol

Section 1. Product Information

Product Name: Ethyl Alcohol
Product Description: Alcohol, denatured with isopropanol and methanol

Section 2. Composition and Information on Ingredients

Name	CAS#	Concentration*
Ethyl alcohol 200 Proof	64-17-5	90%
Isopropyl alcohol	67-63-0	5%
Methyl alcohol	67-56-1	5%

*All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

Toxicological Data on Ingredients	
	Ethyl alcohol 200 Proof: ORAL (LD50): Acute: 7060 mg/kg [Rat]. 3450 mg/kg [Mouse] VAPOR (LC50): Acute: 20000 ppm 8 hours [Rat]. 39000 mg/m ³ 4 hours [Mouse]
	Isopropyl alcohol: ORAL (LD50): Acute: 5045 mg/kg [Rat]. 3600 mg/kg [Mouse]. 6410 mg/kg [Rabbit] DERMAL (LD50): Acute: 12800 mg/kg [Rabbit]
	Methyl alcohol: ORAL (LD50): Acute: 5628 mg/kg [Rat] DERMAL (LD50): Acute 15800 mg/kg [Rabbit]

Section 3. Hazards Identification

Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).
Potential Chronic Health Effects	Slightly hazardous in case of skin contact (sensitizer). Carcinogenic Effects: Classified A4 (not classifiable for human or animal) Mutagenic Effects: Mutagenic for bacteria and/or yeast Teratogenic Effects: Classified PROVEN for human [Ethyl

	alcohol 200 proof]. Classified POSSIBLE for human [Methyl alcohol] Developmental Toxicity: Classified development toxin [PROVEN]. Classified reproductive system/toxin/female, reproductive/toxin/male [POSSIBLE]. The substance is toxic to blood, liver, eyes, central nervous system (CNS). The substance may be toxic to kidneys, the reproductive system, heart, brain, peripheral nervous system, upper respiratory tract, skin, optic nerve. Repeated or prolonged exposure to the substance can produce target organs damage.		
NFPA Hazard ID	Health 2	Flammability 3	Reactivity 0
HMIS Hazard ID	Health 2	Flammability 3	Reactivity 0

Section 4. First Aid Measures

Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear. Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Eye Contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

FOR SERIOUS INGESTION NOTES TO PHYSICIAN:

1. Support vital functions, correct for dehydration and shock, and manage fluid balance.
2. This product contains Methanol. The currently recommended medical management of Methanol poisoning includes the following methods:
 - a. Emptying the stomach by gastric lavage. It is useful if initiated within < 1 hour of ingestion.
 - b. Correct metabolic acidosis with intravenous administration of sodium bicarbonate, adjusting the administration rate according to repeated and frequent measurement of acid/base status.

c. Administer Fomepizole (4-methylpyrazole or Antizol) therapy by IV as an antidote to inhibit the formation of toxic metabolites. Adjunct therapy with Leucovorin followed by Folate can also be initialized.

d. If patients are diagnosed and treated early in the course with the above methods, hemodialysis may be avoided if fomepizole or ethanol therapy is effective and has corrected the metabolic acidosis, and no renal failure is present. However, once severe acidosis and renal failure occurred, however, hemodialysis is necessary. Hemodialysis is effective in removing Methyl alcohol and toxic metabolites, and correcting metabolic acidosis.

Section 5. Fire Fighting Measures

Flammable

Flammability Properties	Flash Point [Method]: 16°C (60.8°F) Flammable Limits (Approx volume % in air): Lower: 3.3% Upper: 19% Autoignition Temperature: 399°C (750.2°F) Products of Combustion: Carbon oxides (CO, CO ₂)
Appropriate Extinguishing Media	Flammable liquid, soluble or dispersed in water SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames and sparks, of heat. Slightly flammable to flammable in presence of oxidizing materials. Non-flammable in presence of shocks.
Explosion Hazards in Presence of Various Substances	Slightly explosive in presence of open flames and sparks, of heat, of oxidizing materials, of acids
Special Remarks on Fire Hazards	Containers should be grounded. CAUTION: MAY BURN WITH NEAR INVISIBLE FLAME. Vapor may travel considerable distance to source of ignition and flash back. May form explosive mixtures with air. Contact with Bromine pentafluoride is likely to cause fire or explosion. Ethanol ignites on contact with chromyl chloride and iodine heptafluoride gas. It ignites than explodes upon contact with nitrosyl perchlorate. Addition to platinum black catalyst caused ignition.
Special Remarks on Explosion Hazards	Ethanol has an explosive reaction with the oxidized coating around potassium metal. Ethanol ignites and then explodes on contact with acetic anhydride + sodium hydrosulfate (ignites and may explode), disulfuric acid + nitric acid, phosphorous (III) oxide platinum, potassium-tert-butoxide + acids. Ethanol forms explosive products in reaction with the following compound: ammonia + silver nitrate (forms silver nitride and silver fulminate), iodine + phosphorus (forms ethane iodide), magnesium perchlorate (forms ethyl

	<p>perchlorate) mercuric nitrate, nitric acid + silver (forms silver fulminate) silver nitrate (forms ethyl nitrate) silver (I) oxide + ammonia or hydrazine (forms silver nitride and silver fulminate), sodium evolves hydrogen gas).</p> <p>Sodium Hydrazide + alcohol can produce an explosion.</p> <p>Alcohols should not be mixed with mercuric nitrate, as explosive mercuric fulminate may be formed. May form explosive mixture with manganese perchlorate + 2,2-dimethoxypropane.</p> <p>Addition of alcohols to highly concentrate hydrogen peroxide forms powerful explosives.</p> <p>Explodes on contact with calcium hypochlorite.</p> <p>Vapor may explode if ignited in an enclosed area. Containers may explode when heated or involved in a fire.</p> <p>Vapor may form explosive mixtures with air.</p>
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Section 6. Accidental Release Measures

Small Spill	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill	<p>Flammable liquid.</p> <p>Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas, dike if needed. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.</p>

Section 7. Handling and Storage

Precautions	<p>Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested seek medical advice immediately and show the container or the label.</p> <p>Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids, alkalis, moisture.</p>
Storage	<p>Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).</p>