

MAR 29 1993

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072



IDENTITY (As Used on Label and List) (Denatured Alcohol)
Rubbing Alcohol 70% Ethanol

Note: Blank spaces are not permitted. If any item is not applicable, or no
information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name Humco Laboratory, Inc.	Emergency Telephone Number (800) 424-9300
Address (Number, Street, City, State, and ZIP Code) 1008 Whitaker Street, Texarkana, TX 75501	Telephone Number for Information (800) 662-3435
	Date Prepared September 16, 1991
	Signature of Preparer (optional)

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Ethyl Alcohol 64-17-5	1000 ppm		Flammable/Nervous System Depressant	59.2
Acetone 67-64-1	PEL 1000 ppm		Flammable/Irritant	5.0
	TLV-TWA 750 ppm; STEL 1000 ppm		Narcotic	
Water 7732-18-5	None			34.8
Methyl Isobutyl Ketone 108-10-1	PEL-TWA 100 ppm		Flammable/Irritant/Narcotic	1.0
	TLV-TWA 50 ppm; STEL 75 ppm			
Bitrex (TM) 3734-33-6	None		None Noted	.0014
(Denatomium Benzoate)				

Section III — Physical/Chemical Characteristics

Boiling Point 173°F	Specific Gravity (H ₂ O = 1) 0.875 @ 60°F
Vapor Pressure (mm Hg.) 44.6 mm Hg @ 68°F*	Melting Point -173°F*
Vapor Density (AIR = 1) 1.59*	Evaporation Rate (Butyl Acetate = 1)
Solubility in Water Complete	
Appearance and Odor Clear and colorless	

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used) 56°F ASTM D-56 (Tag Closed Cup)	Flammable Limits % BY VOL. Lower-3.3*/Upper-19*	LEL	UEL
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Extinguishing Media: Note: Individuals should perform only those firefighting procedures for which they have been trained.

Special Fire Fighting Procedures: Use dry chemical, "alcohol" foam, or carbon dioxide; water may be ineffective, but water should be used to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect men attempting to stop a leak. Water spray may be used to flush spills away from exposures and to dilute spills to nonflammable mixtures (NFPA-49 1975).

Unusual Fire and Explosion Hazards: Firefighters should wear self-contained breathing apparatus in the positive pressure mode with a full facepiece when there is a possibility of exposure to smoke, fumes or hazardous decomposition products.

Section V — Reactivity Data

Stability	Unstable	Conditions to Avoid
	Stable Generally Stable	Contact with acetyl chloride and a wide range of oxidizing agents may react violently.

Incompatibility (Materials to Avoid)

Acetyl chloride

Hazardous Decomposition or Byproducts

Carbon monoxide can form on incomplete combustion.

Hazardous Polymerization	May Occur	Conditions to Avoid
	Not Likely Will Not Occur	

Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Ingestion? Yes
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Health Hazards (Acute and Chronic): Inhalation: Exposure to over 1000 ppm may cause headache, drowsiness and lassitude, loss of appetite and inability to concentrate. Irritation of the throat. Ingestion: Can cause depression of central nervous system, nausea, vomiting, diarrhea. Eye contact: Liquid or vapor may cause irritation. Skin contact: May cause irritation and defatting of skin on prolonged contact.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
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Emergency and First Aid Procedures: **Swallowing:** If victim is conscious and able to swallow, have victim drink water or milk to dilute. Never give anything by mouth if victim is unconscious or having convulsions. CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. Induce vomiting only if advised by physician or Poison Control Center. **Inhalation:** Immediately remove victim to fresh air. If victim has stopped breathing give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY. **Contact with eyes or skin:** Immediately flush affected area with plenty of cool water. Eyes should be flushed for at least 15 minutes. Remove and wash contaminated clothing before reuse. GET MEDICAL ATTENTION IMMEDIATELY.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled: Wear appropriate respiratory protection and protective clothing. Contain spilled material. Transfer to secure containers. Where necessary, collect using absorbent media. In the event of an uncontrolled release of this material, the user should determine if the release is reportable under applicable laws and regulations.

Waste Disposal Method:

All recovered material should be packaged, labeled, transported, and disposed or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices.

Precautions to Be Taken in Handling and Storing

See Section XI on page 3.

Other Precautions:

Environmental Precautions: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

Section VIII — Control Measures

Respiratory Protection (Specify Type): Where exposure is likely to exceed acceptable criteria use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminant in air and in accordance with OSHA (29 CFR 1910.134).

Protective Clothing: Wear gloves and protective clothing which are impervious to this product for the duration of anticipated exposure if there is potential for skin contact.

Control measures: Handle in the presence of adequate ventilation.

Eye protection: Wear safety glasses meeting the specifications of ANSI Standard Z87.1 where no contact with the eye is anticipated. Chemical safety goggles meeting the specifications of ANSI Standard Z87.1 should be worn whenever there is the possibility of splashing or other contact with the eyes.

WARNING! Flammable. Keep away from heat, sparks, flame and all other ignition sources. Vapor may form flammable mixtures with air. May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventilation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

Material Safety Data Sheet (cont.)

Humco Laboratory, Inc.
P.O. Box 2550
Texarkana, TX 75504

(800) 662-3435 for information
(800) 424-9300 for emergency

Rubbing Alcohol 70% Ethanol
Completely Denatured Alcohol

Section IX

Section X

Section XI

Occupational Exposure Limits: TLV (ACGIH Threshold Limit Value): Mixture See Section II
PEL (OSHA Permissible Exposure Limit): Mixture See Section II

Regulatory Controls

Department of Transportation:

DOT Classification: Flammable Liquid
DOT Proper Shipping Name: Denatured Alcohol
Other DOT Information: Identification No. NA1986
Emergency Response Guide No. 26

Other Regulatory Requirements:

ATF Distilled Spirits Act: The use of denatured alcohol is controlled by regulations which are defined by the Bureau of Alcohol, Tobacco, and Firearms in Title 27 Code of Federal Regulations.
Toxic Substance Control Act: This product is listed in the TSCA Inventory of Chemical Substances.

Precautions: Handling, Storage and Usage

Protect container against physical damage. Detached or outside storage is preferred. Inside storage should be in an NFPA approved flammable liquids storage room or cabinet. All ignition sources should be eliminated. Smoking should be prohibited in storage areas. Electrical installations should be in accordance with Article 501 of the National Electrical Code. NFPA 30, Flammable and Combustible Liquids Code, should be followed for all storage and handling. Frequent careful leakage inspection should be done. Automatic sprinkler system should be provided. Isolate from oxidizers, chemicals capable of spontaneous heating, materials reacting with air or moisture to liberate heat, ignition sources and explosives. Consult local fire codes for additional storage information.

When contents are being transferred, the metallic container must be bonded to the receiving container and grounded to avoid static discharges. Never use pressure to empty. Replace closure securely after each opening.

Keep packaged material out of sun and away from heat. Remove closure carefully; internal pressure may be present. Keep closure up to prevent leakage.

Containers hazardous when emptied. Since emptied containers retain residual product (vapor or liquid), all precautions described on this MSDS must be observed.

For industrial use only. Not for household use.

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which National Distillers and Chemical Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

Prepared by:

Date: