

U.S. INDUSTRIAL CHEMICALS CO.

Division of National Distillers and Chemical Corporation  
MATERIAL SAFETY DATA SHEET

DEHYDRATED ALCOHOL, USP

MSDS NO. 1200/1205  
DATE July 1, 1985

## EMERGENCY NUMBERS

USI: 217-253-3311  
CHEMTREC: 800-424-9300

## GENERAL INFORMATION:

USI: 217-253-3311

**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.

SECTION I - IDENTIFICATION

PRODUCT: Dehydrated Alcohol USP, Ethyl Alcohol, 200 Proof Punctilious<sup>(R)</sup>

SYNONYMS: Ethyl Alcohol - 200 proof; Alcohol, Anhydrous; Ethanol

FORMULA:  $C_2H_5OH$

CHEMICAL FAMILY: Alcohol

CAS RN: 64-17-5

SECTION II - INGREDIENTS

COMPOSITION	NOMINAL %	PEL/TLV	HAZARD
Ethyl Alcohol	100	See Section IV	Flammable Nervous System Depressant

SECTION III - HEALTH INFORMATION

**INHALATION:** Acute inhalation LC50 (10 hours) = 20000 ppm (rat). Exposure to over 1000 ppm may cause headache, drowsiness and lassitude, loss of appetite and inability to concentrate. Irritation of the throat.

**INGESTION:** Acute oral LD50 = 7060 mg/kg (rat). 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.

SECTION IV - OCCUPATIONAL EXPOSURE LIMITS

PEL (OSHA Permissible Exposure Limit): 1000 ppm (1900 mg/m<sup>3</sup>)

TLV (ACGIH Threshold Limit Value): 1000 ppm (1900 mg/m<sup>3</sup>)

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SECTION V - EMERGENCY FIRST AID PROCEDURE

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FOR OVEREXPOSURE BY:

**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.

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SECTION VI - PHYSICAL DATA

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**BOILING POINT:** 173°F  
**MELTING POINT:** -173°F  
**VAPOR PRESSURE:** 44.6 mm Hg @ 68°F  
**SPECIFIC GRAVITY:** 0.7937 @ 60°/60°F  
**VAPOR DENSITY (AIR=1):** 1.59  
**SOLUBILITY IN WATER:** Complete  
**APPEARANCE AND COLOR:** Clear and colorless

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SECTION VII - FIRE AND EXPLOSION HAZARDS

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**FLASH POINT:** 55°F ASTM D-56 (Tag Closed Cup)  
**AUTO-IGNITION TEMPERATURE:** 685°F  
**FLAMMABLE LIMITS IN AIR, % BY VOL.** LOWER: 3.3  
UPPER: 19  
**NFPA RATING:** HEALTH ( 0 ) FIRE ( 3 ) REACTIVITY ( 0 )  
(Does not apply to exposure hazards other than during a fire.)

**FIRE FIGHTING PROCEDURES:** (Note - Individuals should perform only those fire-fighting procedures for which they have been trained.) 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 & 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.

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**SECTION VIII - REACTIVITY**

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STABILITY: Generally stable

HAZARDOUS POLYMERIZATION: Not likely

CONDITIONS & MATERIALS TO AVOID: Contact with acetyl chloride and a wide range of oxidizing agents may react violently.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide can form on incomplete combustion.

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**SECTION IX - EMPLOYEE PROTECTION**

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CONTROL MEASURES: Handle in the presence of adequate ventilation.

RESPIRATORY PROTECTION: 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 the product for the duration of the anticipated exposure if there is potential for prolonged or repeated skin contact.

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.

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**SECTION X - ENVIRONMENTAL PROTECTION**

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

SPILL OR LEAK PROCEDURES: Wear appropriate respiratory protection and protective clothing as described in Section IX. 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: 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.

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SECTION XI - REGULATORY CONTROLS

## DEPARTMENT OF TRANSPORTATION:

DOT CLASSIFICATION:

Flammable Liquid

DOT PROPER SHIPPING NAME:

Ethyl Alcohol

OTHER DOT INFORMATION:

Identification No. UN1170

Emergency Response Guide No. 26

## OTHER REGULATORY REQUIREMENTS:

ATF Distilled Spirits Act

Use of ethyl alcohol without prior payment of applicable excise tax is strictly controlled by regulations promulgated and enforced by the Bureau of Alcohol, Tobacco and Firearms, Dept. of the Treasury. Governing regulations have been defined in Title 27, Code of Federal Regulations.

Toxic Substance Control Act

This product is listed in the TSCA Inventory of Chemical Substances.

SECTION XII - 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 products (vapor and liquid), all hazard precautions on this MSDS must be observed.

Caution: For manufacturing, processing, repacking or industrial use. 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 R. J. SpomerDATE July 1, 1985

U.S. INDUSTRIAL CHEMICALS CO.

SUPERCEDES \_\_\_\_\_

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