

Material Safety Data Sheet

	Red Bird	Health:	2 - Moderate
	S e r v i c e	Fire:	3 - Hazardous
		Reactivity:	0 - Minimal

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MSDS: 98733

Prep Date: 10/14/1998

Product: Ethanol

Revision: 6

Section 1 - Chemical Product and Company Identification

Product Chemical Name: Pure chemical

Chemical Formula:

CAS No:

Manufacturer: Red Bird Services PO Box 155 205 Western Avenue Osgood IN 47037

For Emergency, Call Chemtree 24 hours a day....800-424-9300

Catalog Number: B-255 (pH-4.0), B-262 (pH-4.64), B-260 (pH-4.0), B-265 (pH-5.0), B-268 (pH-5.5), B-269(pH-5.58), B-270 (pH-6.0)

Synonym: Ethyl Alcohol, dehydrated alcohol, ErOH, spirits of wine.

Section 2 - Composition/Information on Ingredients

Ingredients	CAS Number	% wt or N
Ethanol	64-17-5	100

OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
TWA	STEL	TWA	STEL	TWA	STEL	IDLH
1900mg/m3	1900mg/m3	1880mg/m3	None estab.	None estab.	None estab.	3300ppm

Section 3 - Hazard Information

Primary Entry Route: Inhalation, ingestion, and skin contact

Target Organs: N/A

Acute Effects: Irritation of eyes and skin

Inhalation: Irritant

Eye: Dangerous

Skin: Irritant

Ingestion: Irritant to dangerous

Carcinogenicity: Not considered to be

Medical Conditions: None listed

Chronic Effects: None listed

Section 4 - First Aid Measures

Inhalation: Move to fresh air, give oxygen if difficulty in breathing. Get medical attention.

Eye Contact: Flush with water for at least 15 minutes, including under eyelids. Get medical attention

Skin Contact: Flush with water for 15 minutes. If irritation persists, get medical attention.

Ingestion: Give water to drink to dilute material. Induce vomiting. Never give anything by mouth to anyone who is unconscious or convulsing. Get medical attention.

Special Precautions: NA

Section 5 - Fire Fighting Measures

Flash Point: 55.22

Burning Rate: N/A

Auto Ignition: 689.09
Temperature

LEL: 3.3%

UEL: 19%

Flammability
Classification: 3

Extinguishing

Media: Use that of surrounding fire. Water spray may be ineffective in some cases.

Unusual Fire/Explosion Hazards: Highly flammable. Will ignite easily by spark or flame.

Hazardous Combustion Products: None listed

Instructions: Do not release runoff from fire control methods to sewers or waterways.

Equipment: N/A

Section 6 - Accidental Release Measures

Spill/Leak Procedures: Eliminate all ignition sources. ALL equipment used must be grounded.

Small Spills: Cover with dry earth, dry sand, or non-combustible material followed by plastic sheet to minimize spreading.

Large Spills: For containment; dike far ahead of the spill. Cover with dry earth, dry sand or non-combustible materials. Do not release into sewer.

Regulatory Requirement: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling

Precautions: Wear safety glasses, goggles or face shield, safety gloves, personal protective clothing as required in section 8 in this MSDS.

Storage

Requirements: Store in closed container, cool, dry, in well-ventilated area, away from heat and incompatible materials.

Regulatory

Requirement: See section 15 of this MSDS.

Section 8 - Exposure Controls/ Personal Protection

Engineering

Controls: N/A

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative

Controls: N/A

Respiratory

Protection: Seek professional advice prior to respirator selection and use, Follow OSHA respirator regulations (29 CFR 1910.134) and if necessary, wear a MSHA/NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels or storage tanks), wear an SCBA. Warning! Air purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective

Clothing/

Equipment: Wear chemically protective gloves. Wear protective eyeglasses or chemical safety glasses. Per OSHA eye-and-face-protection regulations (29 CFR 1910.133).

Safety

Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated

Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Contact lenses are not safety protection; soft lenses absorb and all lenses concentrate exposure. Practice good personal hygiene after use of this material especially before eating, drinking, smoking, using the toilet or applying cosmetics. Never eat, drink, or smoke in work areas.

Section 9 - Physical and Chemical Properties

Physical State: liquid

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Odor Threshold: 10ppm

pH: NA

Vapor Press: 43.9mm @20 c

Boiling Point: 173.39

Vapor Density: 1.59

Freezing/ Melting Point: -173.28

Formula Weight: N/A

Viscosity: N/A

Density: 0.7890mg/m³ @ c

Refract Index: N/A

Spec Gravity: N/A

Surface Tension: N/A

% Volatile: NA

Appearance

Odor: Clear, colorless liquid with weak, ethereal vinous odor.

Evaporation

Rate: 1.7

Water

Solubility: Complete

Section 10 - Stability and Reactivity

Stability: Stable

Polymerization: N/A

Chemical Incompatibilities: Acetaldehyde, acrolein, ammonium hydroxide, silver oxide. Barium perchlorate bromine. calcium hypochlorite, chlorine, acids, strong oxidizers, potassium dioxide, bromine, pentafluoride, acetyl bromide, acetyl chloride, platinum, sodium.

Conditions to Avoid: Highly flammable, avoid ignitable materials.

Hazardous

Decomposition

Products: May produce irritating, corrosive and/or toxic gases.

Section 11 - Toxicological Information

Eye Effect: Irritation to dangerous

Skin Effect: Irritation to dangerous

Acute

Inhalation

Effects: See section 3 of this MSDS

Acute Oral

Effects: See section 3 of this MSDS

Chronic Effects: See section 3 in this MSDS.

Carcinogenicity: Listed by ACGIH

Mutagenicity: Yes

Teratogenicity: Not listed

Section 12 - Ecological Information

Ecotoxicity: N/A

Environmental Fate: N/A

Environmental Transport: N/A

Environmental Degradation: N/A

Soil Absorption Mobility: N/A

Section 13 - Disposal Considerations

Disposal: Follow all Federal State, and Local regulations.

Disposal Regulatory Requirements: See section 6 of this MSDS.

Container Cleaning and Disposal: N/A

Section 14 - Transport Information

Shipping Name: Ethanol

Shipping Symbol: N/A

Hazard Class: 3

Id No: UN1170

Packing Group: II

Label: Flammable Liquid

Special Provision: N/A

Packaging Exceptions: N/A

Nn-Blk Packaging: N/A

Bulk Packaging: N/A

Quantity Limitations:

Passenger, Air, or Rail: 5 Lt

Cargo Aircraft Only: 60 Lt

Vessel Stowage Requirements:

Vessel Stowage: A

Other: N/A

Section 15 - Regulatory Information

EPA Regulation:

RCRA hazardous waste number: Listed (40 CFR 261.33)

RCRA hazardous Waste classification: (40 CFR 261.??): Not classified.

CERCLA hazardous Substance (40 CFR 302.4) listed/ specific peer RCRA, Sec 3001; CWA, Sec 311 (b)(4); CWA,,Sec 307(a), CAA, Sec 12

CERCLA Reportable Quality (RQ)

SARA 311/312 Codes: 114,1156,118,119

SARA Toxic Chemical (40 CFR 372.65): 17

SARA EHS (Extremely hazardous substance)(40 CFR 355): Not listed, Threshold Planning Quality (TPQ) Listed

OSHA Regulations: HH Threshold quantity 1000. listed.

Air contaminant (29 CFR 1910.1000, Table Z-1-A):

OSHA Specifically Regulated Substance(29 CFR 1910.1000)

State Regulations: STCC Listed,

DOT(40 CFR 172.101 Append.)

ACGIH Threshold Limit Value:

MAK: Listed

TSCA: Listed

ANNEX: I Listed

Section 16 - Other Information

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