

MATERIAL SAFETY DATA SHEET

E-Z DENATURED SOLVENT ALCOHOL

EMERGENCY CONTACT: FOR CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT,
CALL CHEMTREC AT 1-(800)-424-9300, DAY OR NIGHT.

<u>INDEX</u>	<u>HMIS</u>	<u>NFPA</u>
4 - Severe	Health 1	Health 1
3 - Serious	Flammability 3	Flammability 3
2 - Moderate	Physical Hazard 0	Reactivity 0
1 - Slight		
0 - Insignificant		

Section 2. COMPOSITION AND INFORMATION ON INGREDIENTS

<u>COMPONENTS</u>	<u>CAS Number</u>	<u>WEIGHT %</u>
METHANOL	67-56-1	57
ETHANOL	64-17-5	40
WATER	7732-18-5	2.6
METHYL ISOBUTYL KETONE	108-10-1	0.4

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

Section 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance	Clear Liquid
Odor	Alcohol
Precautions	WARNING! FLAMMABLE LIQUID AND VAPOR. CAUSES EYE, SKIN, AND RESPIRATORY TRACT IRRITATION. Keep away from heat and flame. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation.
Environmental Precautions	Do not flush into surface water or sanitary sewer system. Low potential to affect aquatic organisms and secondary waste treatment organisms. Readily biodegradable. Not likely to bioconcentrate.

POTENTIAL HEALTH EFFECTS

Eyes	Irritating to eyes. May cause corneal inflammation.
Skin	Prolonged skin contact may cause skin irritation and/or dermatitis. Normal care and personal hygiene should prevent skin effects.
Inhalation	Irritation of the nose and throat, dizziness, and headache.

Ingestion Depression of central nervous system. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Prolonged ingestion may cause liver damage, "fetal-alcohol syndrome" in pregnant females and neuronal degeneration. Aspiration (breathing) into lungs, caused while vomiting, may result in severe pulmonary injury. Ingestion of methanol may cause blindness.

(See Section 11 for Toxicological Information)

SECTION 4. FIRE AID MEASURES

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.
Ingestion	If swallowed, call a physician or poison control center immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Section 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash point	11 °C 51 °F Methanol 5 °C 41 °F Ethanol
Autoignition temperature	ca. 400 °C 752 °F
Flammable limits in air % by volume	Lower explosion limit: 4.0% (V) Upper explosion limit: 20.0% (V)
Fire and explosion	Flash back possible over considerable distance. NFPA Class IB flammable liquid.
Extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Fire fighting instructions	Wear self-contained breathing apparatus and protective suit. Keep containers and surroundings cool with water spray.

Section 6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak	Evacuate personnel to safe areas. Remove all sources of ignition. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13). Do not flush into surface water or sanitary sewer system.
Spill precautions	Material can create slippery conditions.

Section 7. HANDLING AND STORAGE

Safe handling advice	Ensure all equipment is electrically grounded before beginning transfer operations.
Storage/Transport temperature	Ambient

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Mechanical ventilation may be necessary if working with this product in enclosed areas and/or at elevated temperatures.

PERSONAL PROTECTIVE EQUIPMENT

Eyes	When contact with liquid is possible, use a face shield and/or chemical splash goggles. Otherwise, use safety glasses with side shields or goggles.
Skin	Wear suitable protective clothing, gloves and eye/face protection.
Inhalation	Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. NIOSH-approved organic vapor air-purifying respirator, self-contained breathing apparatus, or air-supplied respirators where there may be potential for overexposure.

EXPOSURE GUIDELINES

<u>Components</u>	<u>Exposure limit(s)</u>
Methanol	OSHA PEL 200 ppm ACGIH TLV (8-hour) 200 ppm ACGIH STEL 250 ppm (328 mg/m ³)
Ethanol	OSHA PEL 1,000 ppm (1,900 mg/m ³) ACGIH TLV (8-hour) 1,000 ppm (1,880 mg/m ³)
Methyl isobutyl ketone	OSHA PEL 100 ppm ACGIH TLV (8-hour) 50 ppm ACGIH STEL 75 ppm

PEL=	Permissible Exposure Limits	TWA=	Time Weighted Average (8hr.)
TLV=	Threshold Limit Value	STEL=	Short Term Exposure Limit (15 min.)
EL=	Excursion Limit	WEEL=	Workplace Environmental Exposure Level

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid	Vapor density	ca. 1.5
Colour	Clear	Solubility (water)	Complete
Odour	Alcohol	Melting point/range	-98 °C -144 °F Methanol
Form	Liquid	Density	0.81 g/cm ³ @ 15.5 °C (190 pf)
Boiling point/	74 - 80 °C 165.2 - 176 °F	Evaporation rate	ca. 2 (n-butyl acetate = 1)

range

Vapour pressure ca. 50 mm Hg @ 20 °C

Section 10. STABILITY AND REACTIVITY

Conditions to avoid	Keep away from heat and sources of ignition
Hazardous decomposition products	Combustion products include carbon dioxide, carbon monoxide and possibly other unidentified organic compounds.
Incompatibility with other materials	Can react with strong oxidizers, inorganic acids, and halogens.
Hazardous polymerization	None.

Section 11. TOXICOLOGICAL INFORMATION

Eyes	Irritating to eyes. (conclusion by analogy).
Skin	Slightly irritating. Test Substance: Ethanol Slightly irritating. Test Substance: Methanol
Inhalation	Acute 8 hours LC50 (rat): 16,000 mg/l Test Substance: Ethanol Acute 8 hours LC50 (rat): >22,500 mg/l Test Substance: Methanol Acute 4 hours LC50 (rat): 2,000 - 4,000 mg/l Test Substance: MIBK
Ingestion	Acute oral LD50 (rat): 6,200 - 17,800 mg/kg Test Substance: Ethanol Acute oral LD50 (rat): 6,200 mg/kg Test Substance: Methanol Acute oral LD50 (rat): 1.6 - 5.7 mg/kg Test Substance: MIBK

CARCINOGENICITY

This product contains no carcinogenic substances.

Section 12. ECOLOGICAL INFORMATION

Aquatic toxicity	Low potential to affect aquatic organisms and secondary waste treatment organisms. LC50 (P. Promelas (fathead minnow)) 96 hours 29,400 mg/l Test Substance: Methanol LC50 (P. Promelas (fathead minnow)) 96 hours 15,300 mg/l Ethanol
Biodegradation	Readily biodegradable. Not likely to bioconcentrate.

Section 13. DISPOSAL CONSIDERATIONS

Waste code	D001 - Ignitability (RQ 100 LB) This product has the RCRA characteristic of ignitability. Re-evaluation of this product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.
Disposal methods	Dispose of only in accordance with local, state, and federal regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.
Empty containers	Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

Section 14. TRANSPORT INFORMATION

DOT description & Container Mode:
FLAMMABLE LIQUID, N.O.S., 3, UN1993, II (ETHANOL, METHANOL)
[55 Gal Drum/5 Gal Pail/Gallon]

DOT description & Container Mode:
CONSUMER COMMODITY, ORM-D
[Quart/Pint]

OTHER TRANSPORT INFORMATION

The DOT Transport Information may vary with the container and mode of shipment.

Section 14. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS**OSHA classification**

Flammable liquid, Eye, skin and respiratory irritant

TSCA Inventory Listing

<u>Components</u>	<u>CAS-No.</u>
Methanol	67-56-1
Ethanol	64-17-5
Water	7732-18-5
2-Pentanone, 4-methyl-	108-10-1

SARA 302 Status

<u>Components</u>	<u>CAS-No.</u>	<u>Weight %</u>
Contains no chemicals subject to SARA 302 reporting.		

SARA 311/312 Classification

"Fire hazard", "Immediate (acute) health hazard"

SARA 313 Chemical

<u>Components</u>	<u>CAS-No.</u>	<u>Weight %</u>
Methanol	67-56-1	57
2-Pentanone, 4-methyl-	108-10-1	0.4

CERCLA HAZARDOUS SUBSTANCE

<u>Components</u>	<u>CERCLA RQ</u>	<u>Weight %</u>
Methanol	5,000 LB	57
2-Pentanone, 4-methyl-	5,000 LB	0.4

INTERNATIONAL REGULATIONS

Workplace Hazardous Materials Information System (WHMIS) Classification

Class B, Division 2: Flammable liquid.

Class D, Division 2, Subdivision A: Very toxic material

Australian Inventory of Chemical Substances (AICS) Listing

Listed on the AICS.

Japanese Minister of International Trade and Industry (MITI) Inventory Listing

Listed on MITI.

Canadian Domestic Substance List (DSL) Inventory Listing

Listed on the DSL.

European Inventory of Existing Commercial Chemical Substances (EINECS) Listing

Listed on EINECS.

Phillipines Inventory List (PICCS)

Listed on PICCS.

Korean Inventory List

Listed on ECL.

China Inventory List

Listed on the China inventory.

STATE REGULATIONS

California Safe Drinking Water Act (Prop 65) Listing

Components

CAS-No.

Contains no chemical subject to California Prop 65.

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