Safety Data Sheet

SECTION 1: Identification

Product Name Ethyl Alcohol, 95%
Denatured

Other Identifiers Ethanol 190 Proof (Denatured); 84410-20, 84410-21

Recommended Uses General use.

Uses Advised Against Not intended for drug, food or household use.

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SECTION 2: Hazard(s) Identification

Flammable liquids (Category 2)
Serious eye damage/eye irritation (Category 2A)
Carcinogenicity (Category 1)
Germ cell mutagenicity (Category 1)
Reproductive toxicity (Category 1)
Specific target organ toxicity, single exposure (Category 1)

Hazards not otherwise classified or covered by GHS

None identified.

Signal Word

DANGER

Hazard Statements

Highly flammable liquid and vapour. Causes serious eye irritation. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs.

Precautionary Statements

Obtain, read and follow all safety instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take action to prevent static discharges. Do not breathe mist, vapors or spray. Wash areas of contact/exposure thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves and clothing and eye protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin/hair with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. IF exposed or concerned: Get emergency medical help immediately. IF eye irritation persists: Get medical help. In case of fire: Use dry chemical, foam or carbon dioxide (CO2) for extinction. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local, state, federal and international regulations.

SECTION 3: Composition / Information on Ingredients

Component Name	Component Number CAS	Component Number EC	Component Weight %
Ethyl alcohol	64-17-5	200-578-6	88
Water	7732-18-5	231-791-2	4.74
Methyl alcohol	67-56-1	200-659-6	4.5
Hexone	108-10-1	203-550-1	0.92
Ethyl Acetate	141-78-6	205-500-4	0.92
Hydrocarbon solvents	n/a	---	0.92

SECTION 4: First-Aid Measures

General Advice	Show this SDS to attending physician if medical treatment is needed.
Skin Contact	Immediately wash affected area with soap and water while removing contaminated clothing . Seek medical attention if there is any evidence of skin damage or persistent irritation.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. Seek immediate medical attention.
Inhalation	Remove person to fresh air and keep comfortable for breathing. If breathing is difficult or labored, seek medical attention.
Ingestion	Rinse mouth. Seek medical attention if feeling unwell.
Symptoms/effects	The most important known symptoms/effects are described in Section 2 of this Safety Data Sheet.
Treatment	Treat symptomatically.

SECTION 5: Fire-Fighting Measures

Extinguishing Media	Use water, carbon dioxide, foam, dry chemical or sand/earth to extinguish.
Specific Hazards	Thermal decomposition may produce toxic or irritating fumes.
Actions for Firefighters	Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Use water spray to cool containers.

SECTION 6: Accidental Release Measures

Precautions and Procedures	Remove all sources of ignition. Vapors can accumulate. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate unprotected personnel to safe areas. Keep people away from and upwind of spill/leak.
Environmental Precautions	As with any chemical, avoid release to the environment for the responsible stewardship of our planet.
Containment and Clean Up	Remove all sources of ignition. Have fire extinguishing agent available. Use only non-sparking tools and explosion-proof equipment. Wear respiratory protection, gloves, eye protection and protective clothing. Contain and absorb with inert absorbent material or vacuum up spillage and collect in suitable lidded container for disposal.

Section 7: Handling and Storage

Handling	Follow good hygiene procedures when handling chemical materials. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use personal items when handling this substance. Wear chemical resistant gloves, protective clothing and eye protection when handling this substance, as well as any other PPE recommended in any section of this SDS. Ground or bond containers. Use only non-sparking tools and explosion-proof equipment. Ensure adequate ventilation and absence of ignition sources.
Storage	Keep containers tightly closed in a cool and well-ventilated place. Avoid storage near heat, ignition sources or open flame. Protect from physical damage. Store separately from incompatible materials. Store locked up.

Section 8: Exposure Controls / Personal Protection

Engineering Controls	As part of safe chemical handling, emergency eye wash fountains and safety showers should be available in handling areas. Provide sufficient ventilation measures to keep the airborne concentration below the applicable workplace exposure limits.
Exposure Limits	Ethyl alcohol PEL-TWA 1900 mg/m³ US-OSHA
Exposure Limits	Ethyl alcohol REL-TWA 1000 ppm US-NIOSH
Exposure Limits	Ethyl alcohol TLV-STEL 1000 ppm US-ACGIH
Exposure Limits	Methyl alcohol PEL-TWA 260 mg/m³ US-OSHA
Exposure Limits	Methyl alcohol REL-TWA 200 ppm US-NIOSH
Exposure Limits	Methyl alcohol TLV-TWA 200 ppm US-ACGIH
Exposure Limits	Methyl alcohol REL-STEL 250 ppm US-NIOSH
Exposure Limits	Methyl alcohol TLV-STEL 250 ppm US-ACGIH
Exposure Limits	Hexone PEL-TWA 410 mg/m³ US-OSHA
Exposure Limits	Hexone REL-TWA 50 ppm US-NIOSH
Exposure Limits	Hexone TLV-TWA 20 ppm US-ACGIH
Exposure Limits	Hexone REL-STEL 75 ppm US-NIOSH
Exposure Limits	Hexone TLV-STEL 75 ppm US-ACGIH
Exposure Limits	Ethyl acetate PEL-TWA 1400 mg/m³ US-OSHA
Exposure Limits	Ethyl acetate REL-TWA 400 ppm US-NIOSH
Exposure Limits	Ethyl acetate TLV-TWA 400 ppm US-ACGIH
Exposure Limits	Petroleum distillate PEL-TWA 2000 mg/m³ US-OSHA
Exposure Limits	Petroleum distillate REL-TWA 350 mg/m³ US-NIOSH
Exposure Limits	Petroleum distillate Ceiling 1800 mg/m³(15 minute) US-NIOSH
Eye Protection	Wear safety glasses with side shields or safety goggles. Wear face shield if there is risk of splashes.
Skin Protection	Wear chemical resistant gloves and protective clothing.
Respiratory Protection	Where exposure limits are exceeded and cannot be adequately controlled by other engineering means (such as a chemical fume hood), wear respiratory protection.

Section 9: Physical and Chemical Properties

Physical State	Liquid
Appearance/Color	Colorless
Odor	Alcohol-like
Odor Threshold	As low as 1 ppm
Melting/Freezing Point	-57°C
Boiling Point/Range	79°C
Flammability	Flammable
Flammable/Explosive Limits	Estimated 7 - 30.3%
Flash Point	13.3°C
Auto-Ignition Temperature	358°C
Decomposition Temperature	Data not available
pH	Data not available
Viscosity	Data not available
Solubility (in water)	Miscible
Partition Coefficient (n-octanol/water)	Data not available
Relative Density	.8042
Vapor Pressure	Data not available
Vapor Density	Data not available
Evaporation Rate	Data not available
Particle Characteristics	Not applicable.

Section 10: Stability and Reactivity

Reactivity	Explodes on contact with permanganic acid.
Chemical Stability	Stable under normal conditions of handling and storage.
Hazardous Reactions	Based on available data, no reaction hazards have been identified that would occur during normal handling and storage.
Conditions to Avoid	Avoid contact with incompatible materials. Avoid breathing mist or vapors. Keep away from heat, sparks and open flame.
Incompatible Materials	Permanganic acid, alkali metals, oxidizing agents, peroxides, bromine pentafluoride, disulfuryl difluoride, acetyl chloride, mercuric nitrate, perchlorates, perchloric acid.
Hazardous Decomposition	Thermal decomposition can produce carbon oxides.

Section 11: Toxicological Information

Acute Toxicity - Oral	ATE: 7207 mg/kg
Acute Toxicity - Dermal	ATE: > 154 g/kg
Acute Toxicity - Inhalation	ATE: > 90,000 mg/m³
Skin Corrosion/Irritation	This material is not expected to cause skin irritation under normal conditions.
Eye Damage/Irritation	Can cause serious eye irritation.
Respiratory Sensitization	Not expected to cause respiratory sensitization.
Skin Sensitization	Not expected to cause skin sensitization.
Germ Cell Mutagenicity	Based on available data, this substance is known or presumed to cause germ cell mutagenicity.
Carcinogenicity	This substance contains a chemical classified as possibly carcinogenic to humans (IARC: Group 2B).
Reproductive Toxicity	Studies indicate that this material may damage fertility or the unborn child.
STOT Single Exposure	Can cause damage to optic nerve.
STOT Repeated Exposure	None known.
Aspiration Hazard	This substance is not considered to be an aspiration hazard.
Other Information	The toxicological properties have not been fully investigated. Data is unavailable, limited or inconclusive.

Section 12: Ecological Information

Toxicity Values	ATE: > 100mg/L
Persistence/Biodegradability	Data is not available for this mixture of substances.
Bioaccumlation Potential	Data is not available for this mixture of substances.
Mobility in Soil	Data is not available for this mixture of substances.
Other Adverse Effects	None known.

Section 13: Disposal Considerations

Discharge, treatment, or disposal may be subject to national, state, regional or local laws. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Since emptied containers retain product residue, follow label warnings even after container is emptied. Dispose in accordance with national, state, regional and local regulations.

Section 14: Transport Information

UN Number	UN1987
Proper Shipping Name, Hazard Class	ALCOHOLS, N.O.S. (ETHANOL, METHANOL), 3
Packing Group	II
Marine Pollutant	Not classified as a marine pollutant.

Section 15: Regulatory Information

USA TSCA	All components are on or in compliance with the inventory.
USA SARA 302/304	Methyl alcohol, TPQ 4540 kg (10,000 lbs) RQ 2270 kg (5000 lbs)
USA SARA 302/304	Ethyl acetate, TPQ 4540 kg (10,000 lbs), RQ 2270 kg (5000 lbs)
USA SARA 302/304	Hexone, TPQ 4540 kg (10,000 lbs), RQ 2270 kg (5000 lbs)
USA SARA 311/312	Methyl alcohol
USA SARA 311/312	Ethyl acetate
USA SARA 311/312	Hexone
USA SARA 313 (TRI)	Methyl alcohol
USA SARA 313 (TRI)	Hexone
Canada DSL/NDSL	All components are on or in compliance with DSL.
California Proposition 65	This product contains a chemical on the list.

Section 16: Other Information

Acronyms

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
ATE	Acute Toxicity Estimate (calculated toxicity value)
BCF	Bioconcentration Factor
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (USA)
DOT	Department of Transportation (USA)
DSL	Domestic Substances List (Canada)
EHS	Extremely Hazardous Substance
EPA	Environmental Protection Agency (United States)
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IDLH	Immediately Dangerous to Life and Health
NTP	National Toxicology Program (USA)
OSHA	Occupational Safety and Health Administration (USA)
PEL	Permissible Exposure Limit
PNOR	Particulates Not Otherwise Classified
PPE	Personal Protective Equipment
ppb	Parts per billion
ppm	Parts per million
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act (USA)
TLV	Threshold Limit Value
TPQ	Threshold Planning Quantity
TRI	Toxic Release Inventory (USA)
TSCA	Toxic Substances Control Act (USA)
TWA	Time Weighted Average
UN	United Nations

Safety Data Sheet

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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: *product safety department*

Contact: *SPEX CertiPrep, LLC. 1-732-549-7144*