



SAFETY DATA SHEET



Prepared in accordance with
OSHA 2012 Hazard Communication Standard
29 CFR 1910.1200

SECTION 1: PRODUCT IDENTIFICATION

Manufacturer's Name: Environmental Specialists Inc.
1101 Andrews Avenue
Youngstown, OH 44505
www.esrecycling.com

Emergency Telephone Number
PERS (800) 633 – 8253
Information Telephone Number
*** (888) 331 – 3443***

Product Number: ESI METHANOL
Product Name: Methanol
Date of Preparation November 1, 2021

Use of substance/mixture: Solvent
Synonyms: Methyl Alcohol, Wood Alcohol
Formula: CH₃OH

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Flammable Liquid
Acute Oral Toxicity
Acute Dermal Toxicity
Acute Inhalation Toxicity
Specific Target Organ Toxicity (single exposure)
Target Organs – Respiratory system, CNS, Optic nerve.
Specific Target Organ Toxicity (repeated exposure)
Target Organs – Kidney, Liver, Spleen, Blood, Respiratory System

Category 2
Category 3
Category 3
Category 3
Category 1
Category 2

GHS HAZARD PICTOGRAMS



GHS SIGNAL WORD: DANGER

HAZARD STATEMENTS:

Highly flammable liquid and vapor
Toxic if swallowed
Toxic in contact with skin
Toxic if inhaled

May cause respiratory irritation
May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENTS:

Read label before use
Keep away from heat/sparks/open flames/hot surfaces. **NO SMOKING!**
Keep container tightly closed
Avoid breathing vapors/spray
Wash hands thoroughly after handling
Do not eat, drink, or smoke when using this product
Use only outdoors or in a well-ventilated area
Wear protective gloves and eye protection

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
In case of fire: Used dry chemical, carbon dioxide, water spray or alcohol foam for extinction.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %
Methanol	67-56-1	99 – 100%

SECTION 4: FIRST AID MEASURES

Eye Contact:	Flush eye immediately with fresh water for 15 minutes. Remove contact lenses if worn. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical attention.
Skin Contact:	Remove any contaminated clothing. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.
Ingestion:	Get medical attention immediately. Call a physician or contact a poison control center. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties: NFPA Class – IB Flammable Liquid

Flash Point: 53.6° F (12° C)

Flammable Limits: LEL – 6.0% vol UEL – 31% vol

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, unidentified organic compounds. Decomposition and combustion materials may be toxic.

Extinguishing Media: SMALL FIRES: Use dry chemical, carbon dioxide, water fog, or inert gas to extinguish all fires.

LARGE FIRES: Use foam water fort, or water spray. Water fog and spray are effective in cooling containers and adjacent structures. However, water can cause frothing and/or may not extinguish the fire. Water can be used to cool the external walls of vessels to prevent excessive pressure, autoignition or explosion. DO NOT use a solid stream of water directly on the fires as the water may spread the fire to a larger area.

Unusual Fire & Explosion Hazards: Flammable Liquid! Methanol will burn with an invisible flame. This material releases vapors at or below ambient temperatures. When mixed with air in certain proportions and exposed to an ignition source. Its vapor can cause a flash fire. Use only with adequate ventilation. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back. A vapor and air mixture can create an explosion hazard in confined spaces such a sewer. If container is not properly cooled it can rupture in the heat of the fire.

Special Fire Fighting Procedures: Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition product and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles. Cover pooling liquid with foam. Containers can build pressure if exposed to radiant heat: cool adjacent containers with flooding quantities of water until well after the fire is out. Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks, or pipelines. Be aware that burning liquid will float on water. Notify appropriate authorities if liquid enters sewers or waterways.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all source of ignition in vicinity of spilled material. Do not touch or walk through the spilled product. Keep non-essential and unprotected personnel from entering the area. If spill occurs indoors, ventilate area, and avoid breathing vapors or mist. A vapor suppressing foam may be used to reduce vapors.

Spill Management: Contain spill with dikes of soil or nonflammable absorbent to minimize contaminated area. Avoid run-off into storm sewers and ditches leading to waterways. If required, notify state and local authorities. Place leaking containers in a well-ventilated area. Clean up small spills by using a nonflammable absorbent or flushing sparingly with water. Contain larger spills with nonflammable diking or absorbent. Clean up by vacuuming or sweeping.

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Assess the spill situation, as the spill may not evolve large amounts of hazardous airborne contaminants in many outdoor spill situations. It may be advisable in some cases to simply monitor the situation until spilled product is removed.

SECTION 7: HANDLING AND STORAGE

Handling: A spill or leak can cause an immediate fire or explosion hazard. Keep containers closed and do not handle or store near heat, sparks, or any other potential ignition sources. Do not contact with oxidizable materials. Do not breathe vapor. Use only with adequate ventilation and personal protection. Never siphon by mouth. Avoid contact with eyes, skin, and clothing. Prevent contact with food and tobacco products. Do not take internally.

When performing repairs and maintenance on contaminated equipment, keep unnecessary persons away from the area. Eliminate all potential ignition sources. Drain and purge equipment, as necessary, to remove material residues. Use gloves constructed of impervious materials and protective clothing if direct contact is anticipated. Provide ventilation to maintain exposure potential below applicable exposure limits. Promptly remove contaminated clothing. Wash exposed skin thoroughly with soap and water after handling.


Empty containers may contain material residues which can ignite with explosive force. Misuse of empty containers can be dangerous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers can cause fire, explosion, or release of toxic fumes from residues. Do not pressurize or expose empty containers to open flames, sparks, or heat. Keep container closed and drum bung in place. All label warnings and precautions must be observed. Return empty drums to a qualified reconditioner. Consult appropriate federal, state, and local authorities before reusing, reconditioning, reclaiming, recycling, or disposing of empty containers and/or waste residues of this material.


Storage: Store and transport in accordance with all applicable laws. Keep containers tightly closed when not in use. Store in a cool, dry well-ventilated area, plainly labeled, and out of closed vehicles. Keep away from all ignition sources. Ground all equipment containing this material. Containers should be able to withstand pressures expected from warming and cooling in storage. This flammable liquid should be stored in a separate safety cabinet or room. All electrical equipment in areas where this material is stored or handled should be installed in accordance with applicable regulatory requirements and the National Electrical Code.


SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION


Engineering Controls: Use in a well-ventilated area. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits (see below). All electrical equipment should comply with the National Electric Code. Have an eye wash station and safety shower readily available where contact can occur.

Personal Protective Equipment: Personal protective equipment (PPE) selections vary based on the potential exposure conditions such as handling practices, concentration, and ventilation. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional knowledgeable with OSHA regulations. At a minimum safety glasses and skin protection should be worn. Additional PPE may be required based on specific working conditions.

Eye Protection:  Safety glasses equipped with side shields are recommended for minimal protection. Chemical goggles should be worn during transfer operations or when there is a likelihood of misting, splashing, or spraying of this material. Suitable eye wash water should be readily available.

Hand Protection:  Avoid skin contact. Wash hands with plenty of soap and water before eating, drinking, smoking, use of toilet facilities or leaving work. Use chemical resistant gloves such as nitrile, or equivalent protection.

Skin Protection:  Uniforms or coveralls should provide adequate protection under normal working conditions. If prolonged contact is unavoidable, wear protective clothing made of nitrile or equivalent. Remove contaminated clothing and launder before reuse. Heavily contaminated clothing and leather goods should be removed promptly discarded.

Respiratory Protection:  Use of a NIOSH-approved organic vapor respirator should be worn when the concentration of vapor exceeds applicable exposure limits. Respirator selection, use, and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Occupational Exposure Guidelines:**Applicable Workplace Exposure Levels**

Substance	ACGIH	OSHA
Methanol	TWA: 200 ppm	TWA: 200 ppm

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Color:	Clear, colorless	Physical State:	Liquid	Vapor Density:	1.1 (Air = 1)
Odor:	Alcohol	Flash Point:	0° F (12° C)	Vapor Pressure	127 mm Hg @ 77° F (25° C)
Density:	6.59 lb/gal	Boiling Point:	148° F (64.6° C)	Solubility:	100% Soluble in water

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Keep away from extreme heat, sparks, and open flames.
Incompatibility with Other Materials:	Keep away from sulfuric and other strong inorganic acids, aluminum, or lead (including equipment made of these materials), and oxidizing agents such as peroxides, nitric acids, perchloric acid or chromium trioxides.
Hazardous Decomposition Products:	Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids, and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.
Hazardous Polymerization:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity	Oral: Harmful if swallowed Dermal: Toxic in contact with skin Inhalation: Dust, mist, vapor – Toxic if inhaled
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METHANOL TOXICITY	
LD ₅₀ Oral Rat	> 5,000 mg/kg (1187 – 2769 mg/kg bodyweight)
LD ₅₀ Dermal Rad	15,800 mg/kg (Rabbit)
LC ₅₀ Inhalation Rat (mg/l)	85 mg/l/4 hr (Rat)
LC ₅₀ Inhalation Rat (ppm)	64,000 ppm/4 hr (Rat)
ATE US (oral)	100 mg/kg bodyweight
ATE US (dermal)	300 mg/kg bodyweight
ATE US (gases)	700 ppm/4 hr
ATE US (vapors)	3 mg/l/4hr
ATE US (dust, mist)	1 mg/l/4h

Inhalation:	May cause irritation of the nose and throat. High concentrations may cause acute central nervous system depression characterized by headaches, dizziness, nausea, and confusion.
Ingestion:	May cause nausea, abdominal pain, headaches, shortness of breath, visual impairment, and blindness. Severe poisoning can lead to coma and death.
Skin:	Prolongs and/or repeated exposure may cause mild skin irritation, including redness, burning, temporary drying/cracking, and acute dermatitis. Contact with hot material may cause burns. Chronic symptoms of exposure include skin cracking, drying and dermatitis.
Eyes:	Contact may cause slight to moderate irritation, including burning, redness, and tearing.
Chronic Symptoms:	On continuous/repeated exposure/contact: red skin, dry skin, rash/inflammation. Headache. Feeling of weakness. Disturbed tactile sensibility. Visual disturbances. Sleeplessness. Gastrointestinal complaints. Cardiac and blood circulation effects.

SECTION 12: ECOLOGICAL INFORMATION

Environmental toxicity:	Readily biodegradable.
Persistence and degradability:	Mobile in soils.
Bioaccumulation:	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
PBT/vPvB:	The mobility of methanol in the subsurface will not be significantly limited by adsorption. Sorption of methanol to organic carbon in soil will be minor, and methanol will tend to remain in soil pore water.
Terrestrial Fate:	Methanol is completely miscible with water. Accordingly, its mobility in the subsurface will not be limited by solubility. Methanol has been shown to undergo rapid biodegradation in a variety of screening studies using sewage seed and activated sludge inoculum, which suggests that biodegradation, will occur in aquatic environments where the concentration does not inhibit bacterial activity.
Aquatic Fate:	Readily biodegradable.
Atmosphere Fate:	Methanol has a vapor pressure of 127 mm Hg at 77° F (25° C) and is expected to exist solely as a vapor in the ambient atmosphere.

SECTION 13: DISPOSAL CONSIDERATIONS

Material Disposal: Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.

Container Disposal: Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut, or weld uncleaned drums. Send to drum recycler or metal reclaimer.

Local Legislation: Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

SECTION 14: TRANSPORTATION INFORMATION

US DOT Status:	Shipping Name: Methanol UN/NA #: UN1230 Hazard Class: 3, Flammable Liquid Packing Group: II Required Placards: Class 3 or UN1230 North American Emergency Response Guide #: 131
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SECTION 15: REGULATORY INFORMATION

TSCA Inventory	Components of this material are exempt from the requirements of the Toxic Substances Control Act Inventory.
SARA 302/304 Emergency Planning and Notification	<p>The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for “Extremely Hazardous Substances” listed in 40 CFR 302.4 and 40 CFR 355.</p> <p>There are no components in this product on the SARA 302 list.</p>

SARA 311/312 Hazard Identification

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 311 and 312 to submit aggregate information on chemical by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories:

Immediate (Acute) Health Effects:	Yes
Delayed (Chronic) Health Effects:	Yes
Fire Hazard:	Yes
Sudden Release of Pressure Hazard:	No
Reactivity Hazard:	No

SARA 313 Toxic Chemical Notification and Release Reporting

This product contains constituents listed in 40 CFR 372 and therefore are subject to the requirements of Section 313 of SARA.

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQs) including petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4.

Methanol present in this product is subject to CERCLA reporting.

SECTION 16: OTHER INFORMATION

NFPA Ratings:

Health: 2
Flammability: 3
Reactivity: 0



HMIS Ratings:

Health: 2
Flammability: 3
Reactivity: 0

HEALTH	1
FLAMMABILITY	3
REACTIVITY	0
SPECIAL PROTECTION	<input type="checkbox"/>

0 – Least, 1 – Slight, 2 – Moderate, 3 – High, 4 – Extreme

These values are obtained using the guidelines or published evaluations by the National Fire Protection Association (NFPA) of the National Paint and Coating Association (for HMIS ratings).

LABEL RECOMMENDATION: Methanol

NOTICE: The information herein is based on data considered to be accurate at date of preparation. No warranty is made as to the accuracy or completeness of the foregoing data and safety information. No responsibility can be assumed by vendor for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.