

Safety Data Sheet

SECTION 1: Identification

Product Name	Ethyl Ether
Product Code	C1198500
Other Identifiers	Ether; Diethyl Ether; Ethoxyethane
Recommended Uses	General Laboratory Reagent/Chemical.
Uses Advised Against	Not intended for drug, food or household use.
Address	3825 Parrott Drive Charlotte, NC 28214 USA
Email	orders@reagents.com
Fax	1-888-843-4384
Telephone	1-800-732-8484
Website	www.reagents.com
24-Hour Emergency Telephone	
CHEMTREC (USA) 800-424-9300 CHEMTREC (International) 1 + 730-527-3887	

SECTION 2: Hazard(s) Identification

Flammable liquids (Category 1)
Specific target organ toxicity, single exposure (Category 3)
Acute toxicity Oral (Category 4)

Hazards not otherwise classified or covered by GHS

None identified.

Signal Word

DANGER

Hazard Statements

Extremely flammable liquid and vapour. May cause drowsiness or dizziness. Harmful if swallowed.

Precautionary Statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. - No smoking. Ground/bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take action to prevent static discharges. Avoid breathing mist or vapors. Wash areas of contact/exposure 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 clothing and eye protection. IF SWALLOWED: Get medical help. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin/hair with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell. In case of fire: Use dry chemical, foam or carbon dioxide (CO2) for extinction. Store in a well-ventilated place. Keep container tightly closed. 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 Ether	60-29-7	200-467-2	100

Safety Data Sheet

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. If irritation persists, seek 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 carbon dioxide, foam, dry chemical or sand/earth to extinguish. Do not use water; solid streams of water may spread fire.
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.

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 and eye protection when handling this substance. 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 ether PEL-TWA 1200 mg/m³ US-OSHA
Exposure Limits	Ethyl ether TLV-TWA 400 ppm US-ACGIH
Exposure Limits	Ethyl ether TLV-STEL 500 ppm US-ACGIH
Eye Protection	Wear safety glasses with side shields or safety goggles. Wear face shield if there is risk of splashes.
Skin Protection	As a general practice, wear chemical resistant gloves when handling chemical substances.
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

Safety Data Sheet

Physical State	Liquid
Appearance/Color	Colorless
Odor	characteristic, sweet, pungent
Odor Threshold	0.83 ppm
Melting/Freezing Point	-116°C
Boiling Point/Range	35°C
Flammability	Flammable
Flammable/Explosive Limits	1.9 - 36%
Flash Point	-45°C
Auto-Ignition Temperature	180°C
Decomposition Temperature	Oxidized by action of air, moisture and light.
pH	Data not available
Viscosity	0.2448 cP at 20°C
Solubility (in water)	70 g/L at 20°C
Partition Coefficient (n-octanol/water)	0.89
Relative Density	.7134
Vapor Pressure	587 hPa at 20°C
Vapor Density	2.55
Evaporation Rate	28 (butyl acetate = 1)
Particle Characteristics	Not applicable.

Section 10: Stability and Reactivity

Reactivity	Oxidizes readily in air to form unstable peroxides that may explode spontaneously.
Chemical Stability	Many ethers autoxidize so readily that peroxidic compounds form, sometimes to dangerous levels, on storage in nonairtight containers.
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	Boron triazide, bromine trifluoride, bromine pentafluoride, bromine, iodine heptafluoride, silver perchlorate, fluorine nitrate, permanganic acid, nitric acid, hydrogen peroxide, peroxodisulfuric acid, iodine(VII) oxide, peat soils, thiotriazyl perchlorate, sulfonyl chloride, sulfur, uranyl nitrate, wood pulp extracts.
Hazardous Decomposition	Thermal decomposition can produce carbon oxides.

Section 11: Toxicological Information

Safety Data Sheet

Acute Toxicity - Oral	LD50 (rat) 1211 mg/kg
Acute Toxicity - Dermal	LD50 (rabbit) >20 ml/kg
Acute Toxicity - Inhalation	LC50 (mouse) 31 g/m ³ /0.5H
Skin Corrosion/Irritation	This material is not expected to cause skin irritation under normal conditions.
Eye Damage/Irritation	This material is not expected to cause eye damage or irritation under normal usage conditions.
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 does not meet the criteria set forth for classification as causing germ cell mutagenicity.
Carcinogenicity	This material has not been identified as a carcinogen by IARC or NTP.
Reproductive Toxicity	Based on available data, this substance does not meet the criteria set forth for classification as a reproductive toxin.
STOT Single Exposure	May cause drowsiness or dizziness.
STOT Repeated Exposure	None known.
Aspiration Hazard	This substance is not considered to be an aspiration hazard.
Other Information	No additional information available.

Safety Data Sheet

Section 12: Ecological Information

Toxicity Values	LC50 (Pimephales promelas) 2560 mg/L/96H
Persistence/Biodegradability	Biodegradation is expected to be a slow process.
Bioaccumulation Potential	BCF range 0.9 - 9.1 suggests low potential for bioaccumulation.
Mobility in Soil	High mobility in soil.
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	UN1155
Proper Shipping Name, Hazard Class	ETHYL ETHER, 3
Packing Group	I
Marine Pollutant	Not classified as a marine pollutant.

Section 15: Regulatory Information

USA TSCA	On or in compliance with the inventory.
USA SARA 302/304	Ethyl Ether, TPQ 4540 kg (10,000 lbs), RQ 45.4 kg (100 lbs)
USA SARA 311/312	Ethyl Ether
USA SARA 313 (TRI)	Does not apply.
Canada DSL/NDSL	On or in compliance with DSL.
California Proposition 65	This product contains no substances 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

Revision Date

10/17/22

Issue Date: 10/17/2022

The information contained herein is believed to be accurate and represents the best data currently available to Reagents but does not purport to be all inclusive. This document is intended only as a guide to the appropriate precautionary handling of the material by properly trained personnel using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Reagents makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Reagents will not be responsible for damages resulting from use of or reliance upon this information.