

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name: Eastman(TM) EEP

Product No.: EAN 970309. 12470-0A, P12470A0, P12470A2, P12470A4, P12470A5, P12470A6, P12470A9, P12470A3, P12470A7

Synonyms, Trade Names: 12470-0A

Additional identification

Chemical name: ethyl-3-ethoxypropionate
CAS-No.: 763-69-9

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Solvent

Uses advised against: None known.

Details of the supplier of the safety data sheet

Manufacturer / Supplier

Eastman Chemical Company
200 South Wilcox Drive
Kingsport, TN 37660-5280 US
+14232292000

Visit our website at www.EASTMAN.com or email emnmsds@eastman.com

Emergency telephone number:

For emergency health, safety, and environmental information, call 1-423-229-4511 or 1-423-229-2000.

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300 or call 423-229-2000.

SECTION 2: Hazards identification

Hazard classification:

Physical hazards

|| **Flammable liquids** **Category 3**

OSHA Specified Hazards: not applicable

Warning label items including precautionary statement:

Pictogram:



Signal words: WARNING!**Hazard Statement(s):** H226: Flammable liquid and vapor.**Precautionary statement:**

Prevention: P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P370+P378: In case of fire; Use water spray, carbon dioxide, dry chemical or alcohol foam for extinction.
P303+P361+P353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

Storage: P403+P235: Store in a well-ventilated place. Keep cool.

Disposal: P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC):

Potential peroxide former.

SECTION 3: Composition/information on ingredients**Substances / Mixtures****General information:**

Chemical name	Concentration	Additional identification	Notes
ethyl 3-ethoxypropionate	>99.9%	CAS-No.: 763-69-9	#
butylated hydroxytoluene	<0.1%	CAS-No.: 128-37-0	#

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

SECTION 4: First aid measures**Description of first aid measures**

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Skin contact: Wash with soap and water. Get medical attention if symptoms occur.

Ingestion: Seek medical advice.

Most important symptoms and effects, both acute and delayed: No known chronic or acute health risks.

Indication of any immediate medical attention and special treatment needed

Hazards: None known.

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards: Flammable liquid and vapor. USE WATER WITH CAUTION. Material will float and may ignite on surface of water.

Extinguishing media

Suitable extinguishing media: Water spray. Carbon Dioxide. Dry chemical. Foam.

Unsuitable extinguishing media: None known.

Special hazards arising from the substance or mixture: Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. May form peroxides of unknown stability.

Advice for firefighters

Special fire fighting procedures: Water may be ineffective in fighting the fire. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear appropriate personal protective equipment.

Environmental precautions: Avoid release to the environment.

Methods and material for containment and cleaning up: Eliminate sources of ignition. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large Spillages: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

SECTION 7: Handling and storage:

- Precautions for safe handling:** Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Minimize exposure to air. After opening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. Do not allow to evaporate to near dryness. Do not distill to near dryness. Addition of water or appropriate reducing materials will lessen peroxide formation.
- Conditions for safe storage, including any incompatibilities:** Keep container tightly closed and in a well-ventilated place. Store away from heat and light.
- Specific end use(s):** Solvent

SECTION 8: Exposure controls/personal protection**Control parameters****Occupational exposure limits**

Country specific exposure limits have not been established or are not applicable unless listed below.

Chemical name	Type	Exposure Limit values	Source
ethyl 3-ethoxypropionate	TWA	50 ppm	Eastman Chemical Company occupational exposure limit: (12 2000)
	STEL	100 ppm	Eastman Chemical Company occupational exposure limit: (12 2000)

Exposure controls

- Appropriate engineering controls:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

- General information:** Eye bath. Washing facilities.
- Eye/face protection:** It is a good industrial hygiene practice to minimize eye contact.
- Skin protection**
- Hand protection:** It is a good industrial hygiene practice to minimize skin contact. For operations where prolonged or repeated skin contact may occur, chemical-resistant gloves should be worn. Contact health and safety professional or manufacturer for specific information.
- Other:** No data available.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hygiene measures: Observe good industrial hygiene practices.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical State:	Liquid
Form:	Liquid
Color:	Colorless
Odor:	ester
Odor Threshold:	0.02 ppm
pH:	No data available.
Freezing Point:	< -50 °C
Boiling Point:	165 - 172 °C
Flash Point:	59 °C (Setaflash Closed Cup)
Evaporation Rate:	0.12
Flammability (solid, gas):	Not applicable
Flammability Limit - Upper (%)-:	No data available.
Flammability Limit - Lower (%)-:	No data available.
Vapor pressure:	0.23 kPa (20 °C)
Vapor density (air=1):	5.0
Specific Gravity:	0.95 (20 °C)
Solubility(ies)	
Solubility in Water:	29 g/l
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Pow: 22.4 log Pow: 1.35
Autoignition Temperature:	377 °C (ASTM E659)
Decomposition Temperature:	(HPDTA) No exotherm to 400°C
Dynamic Viscosity:	1.20 mPa.s (25 °C)
Kinematic viscosity:	1.328 mm ² /s (20 °C)
Explosive properties:	Not classified
Oxidizing properties:	Not classified

SECTION 10: Stability and reactivity

Reactivity:	None known.
Chemical stability:	Stable
Possibility of hazardous reactions:	Forms peroxides of unknown stability.
Conditions to avoid:	Heat, sparks, flames.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	Carbon Dioxide. Carbon Monoxide.

SECTION 11: Toxicological information**Information on likely routes of exposure**

Inhalation:	None known.
Ingestion:	None known.
Skin contact:	Prolonged or repeated skin contact may cause drying, cracking, or irritation.
Eye contact:	None known.

Information on toxicological effects**Acute Toxicity****Oral**

Product:	No data available.
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Specified substance(s)

ethyl 3-ethoxypropionate	Oral LD-50: (Rat, Female.): 4,309 mg/kg Oral LD-50: (Rat, Male.): > 5,000 mg/kg
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Dermal

Product:	No data available.
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Specified substance(s)

ethyl 3-ethoxypropionate	Dermal LD-50: (Rabbit, Male.): 4,080 mg/kg Dermal LD-50: (Rabbit, Female.): 4,680 mg/kg
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Inhalation

Product:	No data available.
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Specified substance(s)

ethyl 3-ethoxypropionate	LC50 (Rat, 6 h): > 998 ppm (highest concentration tested)
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Repeated dose toxicity

Product:	No data available.
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Specified substance(s)

ethyl 3-ethoxypropionate	NOAEL (Rat, by gavage, 28 d): 1,000 mg/kg NOAEL (Rat, Inhalation study:, 90 d): 500 ppm
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Skin corrosion/irritation:

Product: No data available.

Specified substance(s)
 ethyl 3-ethoxypropionate (Rabbit, 4 h): Slight

Serious eye damage/eye irritation:

Product: No data available.

Specified substance(s)
 ethyl 3-ethoxypropionate (Rabbit): Slight

Respiratory or skin sensitization:

Product: No data available.

Specified substance(s)
 ethyl 3-ethoxypropionate Skin Sensitization:, (Guinea Pig) - non-sensitizing

Mutagenicity

In vitro

Product: No data available.

Specified substance(s)
 ethyl 3-ethoxypropionate Mutagenicity - Bacterial, : negative +/- activation
 Chromosomal aberration, : negative +/- activation
 Mutagenicity - Mammalian, : negative +/- activation

In vivo

Product: No data available.

Specified substance(s)
 ethyl 3-ethoxypropionate No data available.

Carcinogenicity

Product: No data available.

Specified substance(s)
 ethyl 3-ethoxypropionate No data available.

Reproductive toxicity

Product: No data available.

Specified substance(s)
 ethyl 3-ethoxypropionate No data available.

Specific target organ toxicity - single exposure

Product: No data available.

Specified substance(s)
 ethyl 3-ethoxypropionate No data available.

Specific target organ toxicity - repeated exposure

Product: No data available.

Specified substance(s)
 ethyl 3-ethoxypropionate No data available.

Aspiration hazard

Product: No data available.

Specified substance(s)

ethyl 3-ethoxypropionate No data available.

Other adverse effects:

No data available.

SECTION 12: Ecological information

Toxicity

Acute toxicity

Fish

Product: No data available.

Specified substance(s)

ethyl 3-ethoxypropionate LC-50 (Fish, 96 h): 60.9 mg/l

Aquatic invertebrates

Product: No data available.

Specified substance(s)

ethyl 3-ethoxypropionate EC-50 (daphnid, 48 h): 873 mg/l

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s)

ethyl 3-ethoxypropionate No data available.

Aquatic invertebrates

Product: No data available.

Specified substance(s)

ethyl 3-ethoxypropionate No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

ethyl 3-ethoxypropionate EC-50 (Alga, 72 h): > 114.86 mg/l
 NOEC: (Alga, 72 h): >= 114.86 mg/l

Persistence and degradability

Biodegradation

Product: No data available.

Specified substance(s)

ethyl 3-ethoxypropionate 100 % (28 d, Ready Biodegradability: CO2 Evolution Test) Readily biodegradable

Biological Oxygen Demand:

Product No data available.

Specified substance(s)

ethyl 3-ethoxypropionate No data available.

Chemical Oxygen Demand:**Product** No data available.**Specified substance(s)**

ethyl 3-ethoxypropionate No data available.

BOD/COD ratio**Product** No data available.**Specified substance(s)**

ethyl 3-ethoxypropionate No data available.

Bioaccumulative potential**Product:** No data available.**Specified substance(s)**

ethyl 3-ethoxypropionate No data available.

Mobility in soil:

No data available.

Known or predicted distribution to environmental compartments

ethyl 3-ethoxypropionate 1.52 (QSAR model)

Results of PBT and vPvB assessment:

No data available.

ethyl 3-ethoxypropionate

Not fulfilling PBT
(persistent/bioaccumulative/toxic) criteria**Other adverse effects:**

No data available.

SECTION 13: Disposal considerations**Waste treatment methods****General information:** No data available.**Disposal methods:**

Dispose of waste and residues in accordance with local authority requirements. Mix with compatible chemical which is less flammable and incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.

SECTION 14: Transport information

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

DOT

Class combustible liquid, Packing group III for quantities of 450 liters (119 gallons) or more; not regulated for smaller quantities

Possible Shipping Description(s):

not regulated

UN 3272 Esters, n.o.s. combustible liquid III

IMDG - International Maritime Dangerous Goods Code

Possible Shipping Description(s):

UN 3272 ESTERS, N.O.S. (ethyl 3-ethoxypropionate) 3 III

IATA

Possible Shipping Description(s):

UN 3272 Esters, n.o.s. (ethyl 3-ethoxypropionate) 3 III

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/3

SARA 311-312 Hazard Classification(s):

fire hazard

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List

NONE

OSHA: hazardous

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL. Any impurities present in this product are exempt from listing.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-13479

Philippines Inventory (PICCS) : This product is listed on the Philippine Inventory or otherwise complies with PICCS.

Inventory of Existing Chemical Substances in China: All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

SECTION 16: Other information

HMIS® Hazard Ratings: Health - 1, Flammability - 2, Chemical Reactivity - 1

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Revision Information: Not relevant.

Key literature references and sources for data: No data available.

Training information: No data available.

Issue date: 05/21/2014

SDS No.:

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.