Eastman

<03MATERIAL SAFETY DATA SHEET

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	"EASTMAN" EEP Solvent
Product Identification Number(s)	12470-00, P1247000, P1247001, P1247002, P1247003, P1247004, P1247005, P1247006, P1247007, P1247008, P1247010, P1247009, P12470M2
Manufacturer/Supplier	Eastman Chemical Company, Kingsport, Tennessee 37662
MSDS Prepared by	Eastman Product Safety and Stewardship
Chemical Name	3-ethoxypropanoic acid, ethyl ester
Synonym(s)	970309
Molecular Formula	C7H15O3
Molecular Weight	146.19
Product Use	solvent
OSHA Status	hazardous

For emergency health, safety & environmental information, call 800-EASTMAN.

For emergency transportation information, call CHEMTREC at 800-424-9300 or call 800-EASTMAN.

2. COMPOSITION INFORMATION ON INGREDIENTS

(Typical composition is given, and it may vary. A certificate of analysis can be provided.)

Weight %	Component	CAS Registry No.
>99%	ethyl 3-ethoxypropionate	763-69-9
<0.03%	formaldehyde	50-00-0
<0.02%	butylated hydroxytoluene	128-37-0
<0.001%	ethyl acrylate	140-88-5

3. HAZARDS IDENTIFICATION

WARNING!
FORMS PEROXIDES IF MATERIAL BECOMES UNINHIBITED
COMBUSTIBLE LIQUID AND VAPOR
HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS

HMIS® Hazard Ratings: Health - 1, Flammability -2, Chemical Reactivity - 0

NOTE: 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.

4. FIRST-AID MEASURES

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
Eyes: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Skin: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash with soap and water. Get medical attention if symptoms occur.
Ingestion: Seek medical advice.

5. FIRE FIGHTING MEASURES

Extinguishing Media: water spray, dry chemical, carbon dioxide, alcohol foam
Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. USE WATER WITH CAUTION. Material will float and may ignite on surface of water. Water may be ineffective in fighting the fire. Use water spray to keep fire-exposed containers cool.
Hazardous Combustion Products: carbon dioxide, carbon monoxide
Unusual Fire and Explosion Hazards: Forms peroxides of unknown stability if material becomes uninhibited.

6. ACCIDENTAL RELEASE MEASURES

Use personal protective equipment. (See Section 8, EXPOSURE CONTROLS/PERSONAL PROTECTION.) Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
For Large Spills: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams.

7. HANDLING AND STORAGE

Personal Precautionary Measures: Avoid breathing high vapor concentrations. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash thoroughly after handling.
Prevention of Fire and Explosion: Keep away from heat and flame. Keep from contact with oxidizing materials. Keep inhibited. Minimize exposure to air. After opening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. If peroxide formation is suspected, do not open or move container. Do not allow to evaporate to near dryness. Do not distill to near dryness.
Storage: Keep container closed.
Additional Information: Store away from heat and light.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

FORMALDEHYDE
US. ACGIH Threshold Limit Values
Ceiling Limit Value: 0.3 ppm, 0.37 mg/m3
US. NIOSH: Pocket Guide to Chemical Hazards
Recommended exposure limit (REL): 0.016 ppm,
FORMALIN (AS FORMALDEHYDE), as formaldehyde
US. NIOSH: Pocket Guide to Chemical Hazards
Recommended exposure limit (REL): 0.016 ppm,
FORMALDEHYDE
US. NIOSH: Pocket Guide to Chemical Hazards

Ceiling Limit Value and Time Period (if specified): 0.1 ppm, 15-min
FORMALIN (AS FORMALDEHYDE), as formaldehyde
US. NIOSH: Pocket Guide to Chemical Hazards
Ceiling Limit Value and Time Period (if specified): 0.1 ppm, 15-min
FORMALDEHYDE
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Time Weighted Average (TWA): 0.75 ppm,
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Short Term Exposure Limit (STEL): 2 ppm,
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
OSHA Action level: 0.5 ppm,
US. OSHA Table Z-1-A (29 CFR 1910.1000)
Time Weighted Average (TWA): 0.75 ppm,
US. OSHA Table Z-1-A (29 CFR 1910.1000)
Short Term Exposure Limit (STEL): 2 ppm,
ETHYL ACRYLATE
US. ACGIH Threshold Limit Values
Time Weighted Average (TWA): 5 ppm, 20 mg/m3
US. ACGIH Threshold Limit Values
Short Term Exposure Limit (STEL): 15 ppm, 61 mg/m3
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
PEL: 25 ppm, 100 mg/m3
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Skin designation: Can be absorbed through the skin.
US. OSHA Table Z-1-A (29 CFR 1910.1000)
Time Weighted Average (TWA): 5 ppm, 20 mg/m3
US. OSHA Table Z-1-A (29 CFR 1910.1000)
Short Term Exposure Limit (STEL): 25 ppm, 100 mg/m3
US. OSHA Table Z-1-A (29 CFR 1910.1000)
Skin Designation (Final Rule Limit applies): Can be absorbed through the skin.

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. NOTE: Some countries might not have established exposure limits.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, 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: organic vapor

Eye Protection: It is a good industrial hygiene practice to minimize eye contact.

Skin 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 glove manufacturer for specific information.

Recommended Decontamination Facilities: eye bath, washing facilities, safety shower

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: liquid
Color: colorless
Odor: ester, pungent
Odor Threshold: 0.02 ppm
Specific Gravity: 0.95 (20 °C)
Vapor Pressure: 25 °C; 2.0 mbar

Vapor Density: 5.0
Freezing Point: < -50 °C
Boiling Point: 165 °C
Evaporation Rate: 0.12 (n-butyl acetate = 1)
Viscosity: 1.20 mPa.s (25 °C)
Solubility in Water: 29 g/l
Octanol/Water Partition Coefficient: P: 22.4; log P: 1.35
Flash Point: 59 °C (Setaflash closed cup)
Autoignition Temperature: 377 °C (ASTM E659)
Thermal Decomposition Temperature: (HPDTA) No exotherm to 400°C

10. STABILITY AND REACTIVITY

Stability:	Stable. Forms peroxides if material becomes uninhibited.
Incompatibility:	Material reacts with strong oxidizing agents.
Hazardous Polymerization:	will not occur

11. TOXICOLOGICAL INFORMATION

Toxicity data are not available unless listed below.

Oral LD-50:(male rat)	>5,000 mg/kg(highest dose tested)
Oral LD-50:(female rat)	4,300 mg/kg
Inhalation LC-50: (rat)	6 hours: > 1000 ppm (highest concentration tested)
Dermal LD-50: (guinea pig)	> 20 ml/kg (highest dose tested)
Skin Irritation (guinea pig)	slight
Skin Irritation (guinea pig)	slight irritation
Eye Irritation (rabbit)	slight
Skin Sensitization:(guinea pig)	none

12. ECOLOGICAL INFORMATION

Data for the major component of this material have been used to estimate the environmental impact of this material.
As such, it is expected to have a low biochemical oxygen demand and to cause essentially no oxygen depletion in aquatic systems.
It is expected to have a low potential to affect aquatic organisms,

Oxygen Demand Data:
BOD-5: 370 mg/g
BOD-20: 560 mg/g

COD: 1,920 mg/g
ThOD: 1,970 mg/g

Acute Aquatic Effects Data:
96 h LC-50 (fathead minnow): 65 microliter(s)/l
96 h LC-50 (sideswimmer): >100 microliter(s)/l

96 h LC-50 (flatworm): 32 microliter(s)/l
96 h LC-50 (daphnid): >100 microliter(s)/l
96 h LC-50 (pill bug): >100 microliter(s)/l
96 h LC-50 (aquatic earthworm): >100 microliter(s)/l
96 h LC-50 (snail): >100 microliter(s)/l

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

Marine pollutant components: none unless listed below

Reportable Quantity: 151,515 kg

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

ICAO Status: Class 3 Packing group III

IMDG Status: Class 3 Packing group III

15. REGULATORY INFORMATION

WHMIS (Canada) Status: controlled
WHMIS (Canada) Hazard Classification: B/3

SARA 311-312 Hazard Classification(s):
fire hazard

SARA 313: none, unless listed below

Carcinogenicity Classification (components present at 0.1% or more): none, unless listed below

TSCA (US Toxic Substances Control Act): All components of this product are 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): All components of this product are listed on the DSL. Any impurities present in this product are exempt from listing.

EINECS (European Inventory of Existing Commercial Chemical Substances): All components of this product are listed on EINECS.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): All components of this product are listed on AICS or otherwise comply with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): All components of this product are listed in the Handbook or have been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): All components of this product are listed on the Korean inventory or otherwise comply with the Korean Toxic Substances Control Act.

16. OTHER INFORMATION

For other information, call your Eastman representative or the Eastman operator at 423-229-2000 (USA).

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment.