

# EASTMAN

## MATERIAL SAFETY DATA SHEET

Revision Date: 02/24/2004

MSDSUSA/ANSI/EN/150000001062/Version 5.0

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	Eastman(TM) Triethyl Phosphate
Product Identification Number(s)	00418-00, P0041800, P0041801, P0041802, P0041803, P0041804, P0041805, P0041806, P0041807, P0041808, P0041809, P0041810, P0041811, P00418L2
Manufacturer/Supplier	Eastman Chemical Company Eastman Road Kingsport, TN 37662 US
MSDS Prepared by	Eastman Product Safety and Health
Chemical Name	triethyl phosphate
Synonym(s)	00418-00 904662
Molecular Formula	C8H15O4P
Molecular Weight	182.16
Product Use	chemical intermediate
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, if available.)

Weight %	Component	CAS Registry No.
100%	triethyl phosphate	78-40-0

### 3. HAZARDS IDENTIFICATION

**WARNING!**  
CAUSES EYE IRRITATION  
HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS

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

*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:** If symptomatic, move to fresh air. Treat symptomatically. Get medical attention if

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symptoms persist.

**Eyes:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. In case of irritation from airborne exposure, move to fresh air. Get medical attention if symptoms persist.

**Skin:** 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.

**Hazardous Combustion Products:** carbon dioxide, carbon monoxide, oxides of phosphorus

**Unusual Fire and Explosion Hazards:** none

**6. ACCIDENTAL RELEASE MEASURES**

Wear appropriate personal protective equipment. 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. Dike for later disposal.

**7. HANDLING AND STORAGE**

**Personal Precautionary Measures:** Avoid breathing high vapor concentrations. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

**Prevention of Fire and Explosion:** Keep from contact with oxidizing materials.

**Storage:** Keep container closed.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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

**Ventilation:** 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.

**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

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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.

**Eye Protection:** Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

**Skin Protection:** It is a good industrial hygiene practice to minimize skin contact.

**Recommended Decontamination Facilities:** eye bath, washing facilities

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical Form:** liquid

**Color:** colorless

**Odor:** mild

**Specific Gravity:** 1.07 (15.6 °C)

**Vapor Pressure:** 40 °C; 1.33 mbar

**Vapor Density:** 6.3

**Melting Point:** -56.4 °C

**Boiling Point:** 209 °C

**Solubility in Water:** complete

**Flash Point:** 99 °C (Pensky-Martens closed cup)

**Autolignition Temperature:** 227 °C (ASTM D2155)

**Thermal Decomposition Temperature:** (DTA) No exotherm to 500° C

**10. STABILITY AND REACTIVITY**

**Stability:** Stable.

**Incompatibility:** Material reacts with strong oxidizing agents.

**Hazardous Polymerization:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

**General:** Burning experimental urethane foams formulated with both propoxylated trimethylolpropane and phosphorous-containing substances may produce very toxic products of combustion. (For details, see: J. H. Petajan, et al., Extreme toxicity from combustion products of a fire-retarded polyurethane foam, SCIENCE 187, 742-744, 1975.) Flammability testing should always be conducted in a properly functioning laboratory hood and/or with appropriate personal respiratory protection.

*Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.*

Oral LD-50:(rat)	1,311 mg/kg
Inhalation LC-50: (rat)	6 h: >2.05 mg/l
Dermal LD-50: ( guinea pig)	> 21,400 mg/kg
Skin Irritation (guinea pig)	slight
Eye Irritation (rabbit)	moderate

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Skin Sensitization: (guinea pig) none

**12. ECOLOGICAL INFORMATION**

Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.  
**Oxygen Demand Data:**

COD: 1.55 mg/g

**Acute Aquatic Effects Data:**

96 h LC-50 (fathead minnow): > 1070 mg/l  
96 h LC-50 (sideswimmer): > 107 mg/l  
96 h EC-50 (daphnid): 353.1 mg/l  
96 h LC-50 (flatworm): > 1070 mg/l  
96 h LC-50 (ramshorn snail): > 1070 mg/l  
96 h LC-50 (segmented worm): > 107 mg/l  
96 h LC-50 (pill bug): > 107 mg/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

DOT (USA): Class not regulated

ICAO Status: Class not regulated

IMDG Status: Class not regulated

**15. REGULATORY INFORMATION**

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: D/2/B

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**SARA 311-312 Hazard Classification(s):**  
immediate (acute) health 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):** 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 or otherwise complies with CEPA new substance notification requirements.

**EINECS (European Inventory of Existing Commercial Chemical Substances):** This product is listed on EINECS or otherwise complies with EINECS requirements. **EINECS Number:** 201-114-5

**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.

**16. OTHER INFORMATION**

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*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.*

*Highlighted areas indicate new or changed information.*

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