



C H E M I C A L

140 E. Ascot Ln., Cuyahoga Falls, Ohio

44223

MSDS

**MATERIAL SAFETY DATA SHEET
TRIETHYL PHOSPHATE**

Emergency Phones: CHEMTREC 1-800-424-9300 HB Tel: 330-920-8023

NFPA	HCS Risk Phrases	Protective Clothing
thermal hot	Health 6 1 Flammability- 1 Reactivity 6 1 Special Hazard -0	Safety Goggles, Lab Coat, Gloves (particularly for protection when material is

Date of Issue: 01.01.2008

Information provided by United Phosphorous MSDS

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name : Triethyl Phosphate
 Synonyms : Ethyl Phosphate, TEP, Phosphoric Acid, Triethyl Ester
 Chemical Formula : (C₂H₅O)₃PO
 CAS # : 78-40-0
 Distributors name: HB Chemical Corp.
 140 E. Ascot Ln.
 Cuyahoga Falls, Ohio 44223
 330-920-8023

SECTION 2: COMPOSITION INFORMATION ON INGREDIENTS

Substance Description	Percent	CAS No.	Hazardous
Triethyl Phosphate	90 - 100%	78-40-0	Yes

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview

WARNING! CAUSES EYE IRRITATION

Health Rating:

Flammability Rating:

Reactivity Rating:

Contact Rating: Lab Protective Equip: GOGGLES, LAB COAT, VENT HOOD, PROPER GLOVES

Potential Health Effects

Inhalation: Is harmful and may be fatal, headache, nausea, vomiting, dizziness, narcosis, respiratory failure, low blood pressure, central nervous system depression.

Ingestion: Is harmful and may be fatal, irritation and burns to mouth and stomach.

Skin Contact: Severe irritation or burns.

Eye Contact: Severe irritation or burns.

Chronic Exposure: Central nervous system depression.

Aggravation of Pre-existing Conditions: No information found.

SECTION 4: FIRST AID MEASURES

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Prompt action is essential.

Ingestion

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes.

Eye Contact

In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

SECTION 5: FIRE FIGHTING MEASURES

Fire: Flash Point - 116 C (241 F)

Explosion: Closed containers exposed to heat may explode.

Fire Extinguishing Media: Use water spray, alcohol foam, dry chemical or carbon dioxide.

Special Information: Fire fighters should wear proper protective equipment and self-contained breathing apparatus with full-face piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Wear self-contained breathing apparatus and full protective clothing. Stop leak if you can do so without risk. Use water spray to reduce vapours. Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush spill area with water.

SECTION 7: HANDLING AND STORAGE

Keep container tightly closed. Suitable for any general chemical storage area. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Airborne Exposure Limits:
None established

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved)

For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection

Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Other Control Measures

There is insufficient data in the published literature to assign complete numerical SAF-T-DATA ratings and laboratory protective equipment for this product. Special precautions must be used in storage, use and handling. Protective equipment for laboratory bench use should be chosen using professional judgement based on the size and type of reaction or test to be conducted and the available ventilation with overriding consideration to minimize contact with the chemical.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colourless liquid
Odour	Light odour
Solubility	Complete (100%)
Specific Gravity	1.07
PH	No information found
% Volatiles by volume @ 21 C (70F)	N/S
Boiling Point	216 C (421 F)
Melting Point	- 56 C (-69 F)
Vapour Density (Air=1)	6.3
Vapour Pressure (mmHg)	Not applicable

Evaporation Rate (BuAc=1)

No information found

SECTION 10: STABILITY AND REACTIVITY

Stability

Stable under ordinary conditions of use and storage

Hazardous Decomposition Products

Oxides of phosphorus, carbon monoxide, carbon dioxide.

Hazardous Polymerization

Will not occur

Incompatibilities

Strong oxidizing agents

Conditions to Avoid

Heat, flame other sources of ignition

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological - Inhalation

Cancer Lists

Ingredient	NTP Carcinogen		
	Known	Anticipated	IARC Category
Triethyl Phosphate (78-40-0)	No	No	None

SECTION 12: ECOLOGICAL INFORMATION

Environmental Fate: No information found

Environmental Toxicity: No information found

SECTION 13: DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14: TRANSPORT INFORMATION

Not regulated

SECTION 15: REGULATORY INFORMATION

Chemical Inventory Status - Part 1

Ingredient	TSCA	EC	Japan	Australia
Triethyl Phosphate	Yes	Yes	Yes	Yes

Chemical Inventory Status - Part 2

Ingredient	Korea	Canada	Philippines
		DSL	NDSL
Triethyl Phosphate	Yes	Yes	No

Federal, State & International Regulations - Part 1

Ingredient	SARA 302		SARA 313	
	RQ	TPQ	List	Chemical Catg.
Triethyl Phosphate	No	No	No	No

Federal, State & International Regulations - Part 2

Ingredient	CERCLA	RCRA 261.33	TSCA-8 (d)
Triethyl Phosphate	No	No	No

Chemical Weapons Convention: No

TSCA 12(b): No

CDTA: No

SARA 311/312: Acute: Yes Chronic: Yes

Fire: No

Pressure: No

Reactivity: No (Pure / Liquid)

Australian Hazchem Code: No information found

Poison Schedule: No information found

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information by the CPR.

SECTION 16: OTHER INFORMATION

Label Hazard Warning:

WARNING! CAUSES EYE IRRITATION

Label Precautions:

No SAF-T-DATA Ratings have been developed for this product. Read and follow all warnings, precautions, instructions and other safety and handling information on the label and MSDS. During use avoid contact with eyes and clothing. Wash thoroughly after handling. When not in use keep in tightly closed container.

Label First Aid:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse.

Product Use:

Laboratory Reagent

DISCLAIMER

The information contained herein has been provided in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose. HB Chemical 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, HB Chemical will not be responsible for damages resulting from use or reliance upon this information.

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