

MATERIAL SAFETY DATA SHEET

SECTION I CHEMICAL and COMPANY IDENTIFICATION

PRODUCT: *TOF*
CHEMICAL NAME: *Tri 2-ethylhexyl Phosphate*
COMMON/GENERIC NAME: *Trioctyl Phosphate, TOP*
CHEMICAL FAMILY: *Trialkyl Phosphates*
Distributor: HB Chemical Corp. - Customer Service 330-920-8023
EMERGENCY NUMBERS: *CHEMTREC 800-424-9300*
CANUTEC(Canada) 613-996-6666

SECTION II COMPOSITION / INGREDIENT INFORMATION

	<u>Exp.Limits</u>	<u>LD50/LC50</u>
COMPOSITION: Phosphoric Acid, tris(2-ethylhexyl) ester: 100%	None	No data
C.A.S.# 78-42-2	established	found
EINECS #: 201-116-6		

SECTION III/IV HAZARDS / FIRST AID PROCEDURES

EMERGENCY OVERVIEW: A clear colorless, oily liquid, which is not normally irritating to eyes and skin. Ingestion and prolonged contact should be avoided.

EYE: Flush eyes with water for 15 min. Call a physician if irritation develops.

SKIN: Wash skin with soap and water. If in contact with hot product, treat as a burn.

INGESTION: Do not induce vomiting. Never give anything by mouth to unconscious person. Seek medical attention.

INHALATION: Remove to fresh air; give artificial respiration or oxygen if necessary.

TOXICITY: No significant adverse effects expected. Not considered toxic/hazardous.

CARCINOGENICITY: Not listed by NTP, IARC or OSHA

IN ALL CASES OF EMERGENCY, CONTACT A PHYSICIAN

SECTION V FIRE AND EXPLOSION INFORMATION

FLASH POINT 207°C (405°F) COC; **AUTOIGNITION POINT** 371C(700F)

FIRE-FIGHTING PROCEDURES: Use Chemical foam, CO₂, Dry Chemical, water fog. Treat as burning oil. Keep drums as cool as possible to avoid expansion, explosions, and splattering.

HAZARDOUS COMBUSTION PRODUCTS: This product will decompose under extreme temperatures forming oxides of carbon.

PROTECTIVE EQUIPMENT: Full eye protection and protective clothing are required for all indoor/outdoor fires and spills.

SECTION VI **SPILLS AND ENVIRONMENTAL INFORMATION**

SPILL OR LEAK PRECAUTIONS: Wear appropriate protective equipment and gloves and clothing. Contain spill with inert absorbent or earth. Transfer to secure containers and dispose of according to local and state regulations. Thought should always be given to collecting the material in such a manner that it could be recycled. Clean/scrub affected area with detergent. Prevent run-off into sewers or natural waterways. Spills in excess of the RQ must be reported to the local emergency response organizations. Major spills should also be reported to the National Response Center. Spills with potential to contaminate coastal waterways must be reported to the U.S. Coast Guard (800-424-8802)

WASTE DISPOSAL: All containers should be effectively labeled to facilitate the appropriate disposal or reclaim.

SECTION VII **HANDLING AND STORAGE**

Store in sealed containers in dry, ambient temperature conditions. Perform drum and tote filling in well-ventilated area wearing protective eye shields and clothing.

SECTION VIII **EXPOSURE CONTROLS AND PERSONAL PROTECTION**

VENTILATION: Use only where sufficient ventilation exists to keep exposure levels of fumes and dust below recommended levels.

RESPIRATORY AND PERSONAL PROTECTION: Respirators should be selected when TWA exceeded. Avoid hot vapors when mixing or packaging. Safety glasses with side shields; gloves, boots and apron as appropriate.

FACILITIES: There should be a shower facility and eyewash in the building where this product is being stored and handled. Exercise good chemical handling practice.

SECTION IX **PHYSICAL AND CHEMICAL INFORMATION**

Appearance: Clear, colorless liquid
Specific Gravity @25°C = 0.923
Vapor Pressure @ 20°C: 2.1 mm Hg

Evaporation Rate: < 1 (butyl acetate=1)
Boiling Point: 220°C (428°F)
Refractive Index 25°C: 1.4420

SECTION X **STABILITY AND REACTIVITY**

Under normal storage conditions, this product a) is stable; b) will not polymerize or exotherm; c) should be kept away from extreme heat, strong oxidizers and bases; d) this product decomposes under high temperature and hydrolyses in wet low and high pH conditions.

SECTION XI **TOXICOLOGICAL INFORMATION**

Dermal LD ₅₀ :	20,000 mg/kg – rabbit
Oral LD ₅₀ :	37,000 mg/kg – rat
Inhalation LC ₅₀ :	Inhalation LC (gpig); 450 mg/m ³ for 30 mins.
Acute eye/skin effects:	May cause significant irritation. Also may cause gastrointestinal tract irritation.
Mutagenicity:	Negative AMES test.

SECTION XII

ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: May cause adverse impact if material reaches waterways. No other data available.

SECTION XIII

DISPOSAL CONSIDERATIONS

Empty containers can be rinsed with a suitable solvent/surfactant and steamed to remove residual product and fumes before disposal or reuse in accordance with applicable regulations. For spill clean-up procedures see Sect.VI.

SECTION XIV

TRANSPORTATION INFORMATION

DOT: Not restricted. Use a standard commercial label.

CANADA TRANSPORT HAZ.GOODS: Not restricted.

AIR (IATA/ICAO): Not restricted. Use commercial label showing chemical name.

EUROPEAN TRANSPORTATION: ADR/RID HAZ. CLASS.: Not regulated.

US CUSTOMS: - HARMONIZED TARIFF CODE: 2919.00.50.10

SECTION XV

REGULATORY INFORMATION

SARA TITLE III: - 311/312 CATEGORIES: Not listed.

“ “ - 313 Reportable ingredients: None

CERCLA RQ: Not applicable.

TSCA REGULATORY: All intentional ingredients are listed in the TSCA Inventory.

CANADA WHMIS HAZARD SYMBOL AND CLASS: Class D, Division 2, Subdivision B: Toxic Material. May cause eye and skin irritation. This product is WHMIS controlled.

CANADA INGREDIENT DISCLOSURE LIST: Does not contain any ingredients on the IDL. All intentional ingredients are on the DSL.

SECTION XVI OTHER INFORMATION

HMIS Label: Fire: 1
Health: 1
Reactivity: 0
Protection: C

Prepared: May 20, 2008 (PCR)

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other or additional considerations.