



Material Safety Data Sheet

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SECTION 1: Product Identification

Product name	Tri-t-butylphosphine, 99% (70 wt% in xylenes)
CAS #	13716-12-6
Catalog #	0152501
Chemical family	Organophosphorus ligand

SECTION 2: Composition, Information on Ingredients

Component	%	CAS #	EINECS #	Hazard Symbol	R-Phrase
Tri-t-butylphosphine	70	13716-12-6	237-266-4	F C	17-34
Xylene	30	95-47-6	202-422-2	XN	11-38

SECTION 3: Hazard Identification

Emergency overview	Spontaneously flashes in air. Pyrophoric liquid. Vapors irritating to eyes and respiratory tract. May cause skin irritation.
Eye contact	Contact will cause irritation, redness and a burning sensation.
Skin contact	Contact with the skin can result in local irritation. May be absorbed through the skin. Prolonged or repeated skin contact may cause dermatitis.
Inhalation	Inhalation of vapors may depress the central nervous system causing dizziness, difficulty in walking, and irritation to the lungs.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and headache.
Chronic health effects	For Xylene: May cause liver and kidney damage. Effects may be delayed. Narcotic in high concentrations.

SECTION 4: First Aid Measures

Eye exposure	Immediately flush the eyes with copious amounts of water for at least 15 minutes. A victim will need assistance in keeping their eyelids open. Get immediate medical attention.
Skin exposure	Wash the affected area immediately with water. Remove contaminated clothing if necessary. Seek medical assistance if irritation persists.
Inhalation	Remove victim to fresh air immediately. Keep the victim lying down and warm. Give oxygen as soon as possible. If shock occurs, respond with appropriate first aid. Transport the victim to a hospital.
Ingestion	Seek medical attention immediately. Keep the victim calm. Give water to dilute the toxin (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5: Fire Fighting Measures

General information	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material is pyrophoric!
Extinguishing media	Use carbon dioxide, dry chemical or foam.

SECTION 6: Accidental Release Measures	
Spill and leak procedures	If spilled all personnel must be immediately evacuated and the area sealed off. The material may ignite releasing toxic and corrosive fumes of phosphorus pentoxide. Material is pyrophoric! Ventilation should be available. If entry into the area is required, personnel should be fitted with a self-contained breathing apparatus.
SECTION 7: Handling and Storage	
Handling	Material should be transferred under an inert atmosphere of nitrogen or argon in a efficient fume hood. Do not get in eyes, on skin, or on clothing.
Storage	Store in a tightly sealed container under an inert atmosphere of nitrogen or argon. Keep away from heat, open flame. Don't allow contact with any ignition sources. Pyrophoric area.
SECTION 8: Exposure Controls and Personal Protection	
Eye protection	Always wear approved safety glasses when handling a chemical substance in the laboratory.
Skin protection	Wear protective gloves. Consult with glove manufacturer to determine the proper type of glove.
Ventilation	It is imperative that this product is handled in an efficient fume hood.
Respirator	Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
SECTION 9: Physical and Chemical Properties	
Appearance	Colorless liquid
Odor	Aromatic odor (for xylene)
Boiling point	No data
Flash point	87.8 deg F (for xylene)
Solubility in water	Slightly soluble (for xylene)
Specific gravity	0.878 g/ml (for xylene)
Molecular formula	C ₁₂ H ₂₇ P
Molecular weight	202.32
SECTION 10: Stability and Reactivity	
Stability	Air- and moisture sensitive liquid
Hazardous polymerization	Has not been reported.
Conditions to avoid	Contact with oxidizing agents, contact with air and ignition sources.
Incompatibilities with other materials	Oxidizing agents, halogens
Hazardous decomposition products	Carbon monoxide, carbon dioxide, phosphorus pentoxide, organic fumes.
SECTION 11: Toxicological Information	
RTECS Data	No information available on title compound. For xylene: CAS# 95-47-6: Inhalation, mouse: LC50 = 4595 ppm/6H; Oral, rat: LD50 = 3567 mg/kg; Other: Oral, rat: LD50 = 5000 mg/kg. Toxic effects observed in the embryo and fetus of test animals.
Carcinogenic effects	For xylene: IARC: Group 3 (not classifiable)

Mutagenic effects	No information available
Tetratogenic effects	No information available
SECTION 12: Ecological Information	
Ecological information	Biodegradable. Do not empty into drains.
SECTION 13: Disposal Considerations	
Dispose of in a manner consistent with federal, state, and local regulations.	
SECTION 14: Transport Information	
Shipping name (CFR)	Pyrophoric liquid, organic, N.O.S.
Hazard class (CFR)	4.2
Additional hazard class (CFR)	NA
Packing group (CFR)	I
UN ID number (CFR)	UN #2845
Shipping name (IATA)	Pyrophoric liquid, organic, N.O.S. (Prohibited for air transport)
Hazard class (IATA)	4.2
Additional hazard class (IATA)	NA
Packing group (IATA)	I
UN ID number (IATA)	UN #2845
SECTION 15: Regulatory Information	
TSCA	CAS# 95-47-6 is listed on the TSCA Inventory
SARA	Not reportable under SARA Title 313; xylene: regulated by SARA.
SECTION 16: Other Information	
Preparation date	17.05.12
Revision date	17.05.12
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.	