

(9) Triethyl Phosphite, $C_6H_{15}O_3P$
CAS No. 122-52-1
HS No. 29.20.90.90
TDG No. 2323
NIOSH/RTECS No. TH 1130000

Synonyms: Ethyl phosphite; phosphorous acid, triethyl ester; triethoxy phosphine

Physical Properties: MW 166.18, bp: 156°, d.0.969, n_D^{20} 1.4130

Synthesis: The reaction of phosphorous trichloride with ethanol at low temperature in the presence of a t-amine base or with sodium ethoxide in alcohol.

Reactivity: See trimethyl phosphite.

Toxicology: A skin and eye irritant and moderately toxic by ingestion; LD_{50} is 3200 mg/kg (rat). It is reported in EPA TSCA inventory. It is a flammable liquid.

Uses: Organic synthesis, dyestuffs, plasticizers, optical brightners, and lubricant additives.

Suppliers: There are four listed producers: USA (2), Japan (1) and Germany (1); SRI International lists 3 suppliers in the USA.