Zhangjiagang Yarui Chemical Co., Ltd.
China phosphate ester flame retardant production and export manufacturers
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Tris(2-butoxyethyl) phosphate (cas 78-51-3) MSDS

MSDS : Ethanol, 2-butoxy-, phosphate (31)

CAS : 78-51-3

SYNONYMS : * 2-Butoxyethanol, phosphate

* KP 140

* Kronitex KP-140

* Phosflex T-bep

* Phosphoric acid, tris(2-butoxyethyl) ester

* TBEP

* Tri(2-butoxyethanol)phosphate

* Tributoxyethyl phosphate

* Tri(2-butoxyethyl) phosphate

* Tributyl cellosolve phosphate

* Tris-(2-butoxyethyl)fosfat

* Tris(2-butoxyethyl) phosphate

Catalog of Chemical Suppliers, Buyers, Custom Synthesis Companies And Equipment Manufacturers
[Ethanol, 2-butoxy-, phosphate (31) 78-51-3]

*** CHEMICAL IDENTIFICATION ***

RTECS NUMBER : KJ9800000

CHEMICAL NAME : Ethanol, 2-butoxy-, phosphate (3:1)

CAS REGISTRY NUMBER : 78-51-3

BEILSTEIN REFERENCE NO. : 1716010

REFERENCE : 4-01-00-02422 (Beilstein Handbook Reference)

LAST UPDATED : 199710

DATA ITEMS CITED : 17

MOLECULAR FORMULA : C18-H39-O7-P

MOLECULAR WEIGHT : 398.54

WISWESSER LINE NOTATION : 4O2OPO&O2O4&O2O4

COMPOUND DESCRIPTOR : Primary Irritant

SYNONYMS/TRADE NAMES :

* 2-Butoxyethanol, phosphate

* KP 140

* Kronitex KP-140

* Phosflex T-bep

* Phosphoric acid, tris(2-butoxyethyl) ester

* TBEP

* Tri(2-butoxyethanol)phosphate

* Tributoxyethyl phosphate

* Tri(2-butoxyethyl) phosphate

* Tributyl cellosolve phosphate

* Tris-(2-butoxyethyl)fosfat

* Tris(2-butoxyethyl) phosphate

*** HEALTH HAZARD DATA ***

** SKIN/EYE IRRITATION DATA **

TYPE OF TEST : Standard Draize test

ROUTE OF EXPOSURE : Administration onto the skin

SPECIES OBSERVED : Rodent - rabbit

DOSE/DURATION : 500 mg/24H

REACTION SEVERITY : Mild

REFERENCE :

85JCAE "Prehled Prumyslove Toxikologie; Organicke Latky," Marhold, J.,

Prague, Czechoslovakia, Avicenum, 1986 Volume(issue)/page/year: -,1142,1986

TYPE OF TEST : Standard Draize test

ROUTE OF EXPOSURE : Administration into the eye

SPECIES OBSERVED : Rodent - rabbit

DOSE/DURATION : 500 mg/24H

REACTION SEVERITY : Mild

REFERENCE :

85JCAE "Prehled Prumyslove Toxikologie; Organicke Latky," Marhold, J.,

Prague, Czechoslovakia, Avicenum, 1986 Volume(issue)/page/year: -,1142,1986

** ACUTE TOXICITY DATA **

TYPE OF TEST : LD50 - Lethal dose, 50 percent kill

ROUTE OF EXPOSURE : Oral

SPECIES OBSERVED : Rodent - rat

DOSE/DURATION : 3 gm/kg

TOXIC EFFECTS :

Details of toxic effects not reported other than lethal dose value

REFERENCE :

NPIRI* Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. (National

Assoc. of Printing Ink Research Institute, Francis McDonald Sinclair

Memorial Laboratory, Lehigh Univ., Bethlehem, PA 18015)

Volume(issue)/page/year: 2,93,1975

TYPE OF TEST : LD50 - Lethal dose, 50 percent kill

ROUTE OF EXPOSURE : Intravenous

SPECIES OBSERVED : Rodent - mouse

DOSE/DURATION : 180 mg/kg

TOXIC EFFECTS :

Details of toxic effects not reported other than lethal dose value

REFERENCE :

CSLNX* U.S. Army Armament Research & Development Command, Chemical Systems Laboratory, NIOSH Exchange Chemicals. (Aberdeen Proving Ground, MD 21010) Volume(issue)/page/year: NX#00391

TYPE OF TEST : LD50 - Lethal dose, 50 percent kill

ROUTE OF EXPOSURE : Administration onto the skin

SPECIES OBSERVED : Rodent - rabbit

DOSE/DURATION : >16 mL/kg

TOXIC EFFECTS :

Details of toxic effects not reported other than lethal dose value

REFERENCE :

TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 28,313,1974

TYPE OF TEST : LD50 - Lethal dose, 50 percent kill

ROUTE OF EXPOSURE : Oral

SPECIES OBSERVED : Rodent - guinea pig

DOSE/DURATION : 3 gm/kg

TOXIC EFFECTS :

Details of toxic effects not reported other than lethal dose value

REFERENCE :

29ZWAE "Practical Toxicology of Plastics," Lefaux, R., Cleveland, OH, Chemical Rubber Co., 1968 Volume(issue)/page/year: -,336,1968

TYPE OF TEST : LD50 - Lethal dose, 50 percent kill

ROUTE OF EXPOSURE : Oral

SPECIES OBSERVED : Bird - chicken

DOSE/DURATION : >5 gm/kg

TOXIC EFFECTS :

Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - true cholinesterase

Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - phosphatases

REFERENCE :

TIHEEC Toxicology and Industrial Health. (Princeton Scientific Pub. Co., POB 2155, Princeton, NJ 08540) V.1- 1985- Volume(issue)/page/year: 6,415,1990

** OTHER MULTIPLE DOSE TOXICITY DATA **

TYPE OF TEST : TDLo - Lowest published toxic dose
ROUTE OF EXPOSURE : Oral
SPECIES OBSERVED : Rodent - rat
DOSE/DURATION : 22500 uL/kg/18W-I
TOXIC EFFECTS :
Peripheral Nerve and Sensation - sensory change involving peripheral nerve
Peripheral Nerve and Sensation - recording from peripheral motor nerve
Peripheral Nerve and Sensation - structural change in nerve or sheath
REFERENCE :
JJATDK JAT, Journal of Applied Toxicology. (John Wiley & Sons Ltd., Baffins Lane, Chichester, W. Sussex PO19 1UD, UK) V.1- 1981- Volume(issue)/page/year: 4,42,1984

TYPE OF TEST : TDLo - Lowest published toxic dose
ROUTE OF EXPOSURE : Oral
SPECIES OBSERVED : Rodent - rat
DOSE/DURATION : 216 gm/kg/14W-C
TOXIC EFFECTS :
liver - changes in liver weight
Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - true cholinesterase
Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - other transferases
REFERENCE :
JTSCDR Journal of Toxicological Sciences. (Japanese Soc. of Toxicological Sciences, 4th Floor, Gakkai Center Bldg., 4-16, Yayoi 2-chome, Bunkyo-ku, Tokyo 113, Japan) V.1- 1976- Volume(issue)/page/year: 18,421,1993

TYPE OF TEST : TDLo - Lowest published toxic dose
ROUTE OF EXPOSURE : Oral
SPECIES OBSERVED : Rodent - rat
DOSE/DURATION : 15680 uL/kg/14D-I
TOXIC EFFECTS :
Peripheral Nerve and Sensation - recording from afferent nerve
REFERENCE :
CMSHAF Chemosphere. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1972- Volume(issue)/page/year: 13,801,1984

TYPE OF TEST : TDLo - Lowest published toxic dose

ROUTE OF EXPOSURE : Administration onto the skin

SPECIES OBSERVED : Rodent - rabbit

DOSE/DURATION : 15 gm/kg/3W-I

TOXIC EFFECTS :

Skin and Appendages - dermatitis, other (after systemic exposure)

REFERENCE :

NTIS** National Technical Information Service. (Springfield, VA 22161)

Formerly U.S. Clearinghouse for Scientific & Technical Information.

Volume(issue)/page/year: OTS0528536

*** OCCUPATIONAL EXPOSURE LIMITS ***

OEL-RUSSIA:STEL 1 mg/m3;Skin JAN 1993

*** NIOSH STANDARDS DEVELOPMENT AND SURVEILLANCE DATA ***

NIOSH OCCUPATIONAL EXPOSURE SURVEY DATA :

NOHS - National Occupational Hazard Survey (1974)

NOHS Hazard Code - 83871

No. of Facilities: 18954 (estimated)

No. of Industries: 136

No. of Occupations: 50

No. of Employees: 184722 (estimated)

NOES - National Occupational Exposure Survey (1983)

NOES Hazard Code - 83871

No. of Facilities: 9701 (estimated)

No. of Industries: 90

No. of Occupations: 55

No. of Employees: 257421 (estimated)

No. of Female Employees: 105777 (estimated)

*** STATUS IN U.S. ***

EPA TSCA Section 8(b) CHEMICAL INVENTORY

EPA TSCA Section 8(d) unpublished health/safety studies

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JUNE 1998

*** END OF RECORD ***