

# TRIBUTYLTIN OXIDE

1282

March 1998

**CAS No: 56-35-9**  
 RTECS No: JN8750000  
 UN No: 3020  
 EC No: 050-008-00-3

Hexabutyldistannoxane  
 Tri-n-butyltin oxide  
 TBTO  
 $C_{24}H_{54}OSn_2$   
 Molecular mass: 596.07

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Combustible.	NO open flames.	In case of fire in the surroundings: use appropriate extinguishing media.
<b>EXPLOSION</b>			

EXPOSURE		PREVENT GENERATION OF MISTS! STRICT HYGIENE!	
<b>Inhalation</b>	Abdominal cramps. Cough. Diarrhoea. Laboured breathing. Nausea. Sore throat. Vomiting. Symptoms may be delayed (see Notes).	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Refer for medical attention.
<b>Skin</b>	MAY BE ABSORBED! Redness. After delay skin burns.	Protective gloves. Protective clothing.	Rinse and then wash skin with water and soap. Refer for medical attention.
<b>Eyes</b>	Redness. Pain.	Safety spectacles face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Abdominal cramps. Diarrhoea. Nausea. Vomiting.	Do not eat, drink, or smoke during work. Wash hands before eating.	Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Do NOT wash away into sewer. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment. Chemical protection suit including self-contained breathing apparatus.	T Symbol N Symbol R: 21-25-36/38-48/23/25-50/53 S: (1/2-)35-36/37/39-45-60-61 Note: A UN Hazard Class: 6.1 UN Pack Group: II Severe marine pollutant.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-61GT6-II	Provision to contain effluent from fire extinguishing.

### IMPORTANT DATA

**Physical State; Appearance**

LIQUID

**Chemical dangers**

The substance decomposes on burning producing toxic fumes.

**Occupational exposure limits**
TLV: (as Sn) 0.1 mg/m<sup>3</sup> as TWA; 0.2 mg/m<sup>3</sup> as STEL; (skin); A4 (not classifiable as a human carcinogen); (ACGIH 2004).MAK: 0.0021 ppm, 0.05 mg/m<sup>3</sup>; Peak limitation category: I(1);

Pregnancy risk group: C; (DFG 2004).

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its aerosol, through the skin and by ingestion.

**Inhalation risk**

Evaporation at 20/C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

**Effects of short-term exposure**

The substance is severely irritating to the eyes, the skin. Inhalation of the aerosol may cause lung oedema (see Notes). The substance may cause effects on the thymus, resulting in depression of the immune function.

### PHYSICAL PROPERTIES

Boiling point: 173/C

Melting point: &lt;-45/C

Relative density (water = 1): 1.17 at 20/C

Solubility in water: poor

Vapour pressure, Pa at 20/C: 0.001

Flash point: 190/C c.c.

Octanol/water partition coefficient as log Pow: 3.19

### ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur along the food chain, for example in fish and in molluscs. This substance does enter the environment under normal use. Great care, however, should be given to avoid any additional release, e.g. through inappropriate disposal.

### NOTES

The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor or a person authorized by him/her, should be considered. Card has been partly updated in October 2004 and April 2005. See sections Occupational Exposure Limits, EU classification, Emergency Response.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible