



## MATERIAL SAFETY DATA SHEETS

606

Tetraethyl lead

### 1. CHEMICAL IDENTITY

**Chemical Name :** Tetraethyl lead

**Chemical Classification:** Toxic, Flammable      **Trade Name :**

**Synonyms:** TEL, Lead tetraethyl, Tetraethyl plumbane

**Formula :** C<sub>8</sub>H<sub>20</sub>Pb

**CAS No:** 78-00-2

**UN No:** 1649

#### Regulated Identification

**Shipping Name :** Tetraethyl Lead

**Hazchem Code :** 2WE

**Codes / Label :** Class 6.1, Toxic, Flammable

**Hazardous Waste ID No :** 17

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Tetraethyl lead	78-00-2	3	
2		4	

### 2. PHYSICAL / CHEMICAL DATA

**Boiling Pt. °C:** 200 deg C, also stated as 227.7 (decomposes)

**Physical State:** Liquid

**Appearance:** Colourless oily liquid

**Melting Pt °C:** -130

**Vapour Pressure @ 35°C mmHg:** 0.26 mm Hg @ 25 deg C

**Odour:** Pleasant odour

**Vapour Density(Air =1):** 8.6

**Solubility in water at 30°C g/100ml:** 0.02 mg/100ml

**Others:** Soluble in benzene, petroleum ether, gasoline.

**Specific Gravity (Water =1 ):** 1.653 @ 20 deg C

**pH :**

### 3. FIRE / EXPLOSION HAZARD DATA

**Flammability :** No      **LEL:** 1.8      **Flash Point °C in OC:** 85

**TDG Flammability:**      **UEL:**      **Flash Point °C in CC:** 93.5

**Autoignition Temperature °C :** Decomposes > 110

**Explosion sensitivity to impact:** Stable

**Explosion sensitivity to static Electricity:** Stable

**Hazardous Combustion Products :** Combustion products are carbon dioxide, water, and lead.

**Hazardous Polymerization :** Will not occur.

**Combustible Liquid:** Yes      **Explosive Material:** No      **Corrosive Material** No

**Flammable Material:** No      **Oxidiser :** No      **Others:**

**Pyrophoric Material:** No      **Organic Peroxide :** No

### 4. REACTIVITY DATA

**Chemical Stability :** Stable below 110 deg C.

**Incompatibility with other material :** Strong oxidisers, sulfuryl chloride, KMnO<sub>4</sub>

**Reactivity :** Can react vigorously with oxidising materials.

**Hazardous** : Exposure to air for several days may cause explosive decomposition,  
**Reaction Products** leading to poisonous Pb vapours.

## 5. HEALTH HAZARD DATA

**Routes of entry:** Inhalation, Ingestion, Skin & Eyes.

### Effects of Exposure / Symptoms:

Increased urinary output of Lead. A large degree of absorption from inhalation or skin contact may cause insomnia, excitability, delirium, coma, death.

### Emergency Treatment :

**Inhalation:** Remove the victim to fresh air area, apply artificial respiration and Oxygen, if needed

**Skin:** Remove contaminated clothing and wash exposed area thoroughly with soap and water. A physician should examine the area if irritation or pain persists.

**Eyes:** Flush with plenty of water for 15 min.

**Ingestion:** Activated charcoal: administer charcoal as a slurry (240 ml water/30 g charcoal).  
Usual dose: 25 to 100 g in adults/adolescents.

**LD50 (oral-rat) mg/kg:** 12.3 mg/kg

**STEL:**

**LC50 (rat) mg/kg:**

**Odour Threshold:**

**Permissible Exposure Limit:** 0.075 mg/m<sup>3</sup>, skin

**TLV (ACGIH) :** 0.100 mg /m<sup>3</sup> (skin)

NFPA Hazard	Health	Flammability	Reactivity	Special
Signals	2	3	2	W

## 6. PREVENTIVE MEASURES

**Personal Protective Equipment** : Avoid contact with liquid or vapour. Provide organic vapour type canbter, face mask for short periods, an air-line mask for a longer period, Neoprenecoaled liquid proof hand gloves, body overclothing, side covered safety goggles I face shield, rubber shoes.

**Handling** : All chemicals should be considered hazardous. Avoid direct physical contact. Use appropriate, approved safety equipment. Untrained individuals should not handle this chemical or its container. Handling should occur in a chemical fume hood.

**Storage** : Keep in cool dry, well ventilated area away from oxidisers, sunlight. Do not allow to evaporate.

**Precautions** :

## 7. EMERGENCY / FIRST AID MEASURES

### FIRE:

**Fire Extinguishing Media** : Dry chemical powder, CO<sub>2</sub>, foam and water.

**Special Procedure** : Keep the containers cool by spraying water if exposed to heat or flame.

**Unusual Hazards** : Poisonous gases are produced.

### EXPOSURE: First Aid Measures:

**Inhalation:** Remove the victim to fresh air area, apply artificial respiration and Oxygen, if needed

**Skin:** Remove contaminated clothing and wash exposed area thoroughly with soap and water. A physician should examine the area if irritation or pain persists.

**Eyes:** Flush with plenty of water for 15 min.

**Ingestion:** Activated charcoal: administer charcoal as a slurry (240 ml water/30 g charcoal).  
Usual dose: 25 to 100 g in adults/adolescents.

## Antidotes / Dosages:

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### SPILLS :

**Steps To Be Taken** : Shut off leaks if without risk. Contain the spillage on earth or sand.

**Waste Disposal Method:** Seal all the waste in vapour tight plastic bags for eventual disposal

### 8. ADDITIONAL INFORMATION / REFERENCES

An experimental carcinogen and teratogen, particularly toxic to CNS. Decomposes on exposure to sunlight or on evaporation to form triethyl lead which is also a poisonous compound. May cause lead exposure in toxication by coming in contact with the skin. A Gasoline additive to prevent 'knocking' in motors. This compound explodes if confined at higher temperatures. It is much more toxic compared to inorganic lead.

### 9. MANUFACTURERS / SUPPLIERS DATA

**NAME OF FIRM :**

**Contact person**

**MAILING ADDRESS :**

**in Emergency :**

**TELEPHONE / TELEX NOS :**

**Local Bodies involved :**

**TELEGRAPHIC ADDRESS :**

**Standard Packing :**

**OTHERS :**

**Trem Card Details / Ref :**

### 10. DISCLAIMER

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