

**GELEST, INC.**

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MATERIAL SAFETY  
DATA SHEET

EMERGENCY TELEPHONE  
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **LEAD TETRA-n-BUTYL tech-95 - PBL6457**

CHEMICAL NAME: LEAD TETRA-n-BUTYL

SYNONYMS: TETRA-n-BUTYL LEAD, BUTYL LEAD

CHEMICAL FAMILY: LEAD COMPOUND, LEAD ALKYL

FORMULA: C<sub>16</sub>H<sub>36</sub>Pb

HMIS CODES HEALTH: 4 FLAMMABILITY: 2 REACTIVITY: 1

**INGREDIENTS**

IDENTITY	CAS NO.	%	TLV
LEAD TETRA-n-BUTYL	1920-90-7	>95	not established (0.1 mg/m <sup>3</sup> as lead - skin)

**PHYSICAL DATA**

Boiling Point: 140°C at 1mm

Specific Gravity: 1.324

Vapor Density (air=1): >1

% volatiles N/A

Molecular Weight: 435.65

Appearance & Color: Colorless to amber hazy liquid

Melting Point: <0°C

Vapor Pressure: 25°C: <0.1mm

Solubility in water: insoluble

Evaporation rate: not determined

Other: NA

**FIRE & EXPLOSION DATA**

Flash Point, COC: >65°C (>150F)

Autoignition Temp.: not determined

Flammability Limits: not determined

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

-1-(PBL6457)

## ENVIRONMENTAL INFORMATION

Spill response: May be hazardous to aquatic life if released to open waters. Sweep material and transfer to a suitable container for disposal.

Recommended Disposal: Dispose of as lead waste. Follow all chemical pollution control regulations.

## HEALTH HAZARD DATA

Eye Contact: May cause immediate or delayed severe eye irritation.

Skin contact: By analogy to tetraethyllead this compound is probably absorbed through the skin causing lead poisoning syndrome, which is associated with toxicity to the central nervous system. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation will irritate the respiratory tract. Volatile compounds of lead should be treated with extreme caution.

Oral Toxicity: not determined  
expected to be less toxic than the related compound tetraethyllead (TOXICITY- oral-rat, LD50: 12.3mg/kg)  
Chronic Toxicity: Exposure to dust or fumes of organic lead compounds is known to cause toxic effects. Lead is a cumulative poison. The related compound, tetraethyllead is an experimental carcinogen and teratogen.

### SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with water, then wash with soap and water.

INHALATION: Move exposed individual to fresh air. Administer oxygen if needed. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention. *Physician note: Diagnostic mobilization of lead with calcium EDTA may be useful in questionable cases.*

## REACTIVITY DATA

**IMPORTANT: AT ELEVATED TEMPERATURE IN LIQUID PHASE LEAD ALKYLs HAVE BEEN REPORTED TO EXPLODE. AN EXPLOSIVE CONDITION IS OFTEN PRECEDED BY THE LEAD ALKYL RAPIDLY TURNING BLACK.** Stabilization has been reported by the addition of 0.5% stearic acid. Stearic acid is thought to getter lead metal which is catalytic for decomposition of lead alkyls. cont'd

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**REACTIVITY DATA - CONT'D**

Stability: Decomposes slowly above 85°C. May explode if heated above 150°.

Decomposes on exposure to light.

Conditions to avoid: Material decomposes slowly in contact with air by reaction with oxygen.

Hazardous decomposition products: Organic acid vapors and lead oxide fumes.

**SPECIAL PROTECTION INFORMATION**

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV, NIOSH approved dust and mist respirator.

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

**OTHER PRECAUTIONS**

For research use only.

Storage and Handling: Store in sealed containers.

**TRANSPORTATION**

DOT SHIPPING NAME: TOXIC LIQUID, ORGANIC, N.O.S. (LEAD TETRA-n-BUTYL)

DOT HAZARD CLASS: 6.1

DOT LABEL: TOXIC

DOT ID No: UN2810

PG: II

Prepared by safety and environmental affairs    ISSUE DATE PBL6457: 3/20/09

SUPERSEDES: 11/24/03

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