

OSHA Occupational Chemical Database / TETRAETHYL LEAD (as Pb)

TETRAETHYL LEAD (as Pb)†

Chemical Identification	
CAS #	78-00-2
Formula	C ₈ H ₂₀ Pb
Synonyms	lead tetraethyl; TEL; tetraethylplumbane

Physical Properties			
Physical description	Colorless liquid (unless dyed red, orange, or blue) with a pleasant, sweet odor.		
Boiling point	392°F	Molecular weight	323.45
Freezing point/melting point	-202°F	Vapor pressure	0.2 mmHg
Flash point	200°F	Vapor density	8.6
Specific gravity	1.65	Ionization potential	11.10 eV
Lower explosive limit (LEL)	1.8%	Upper explosive limit (UEL)	
NFPA health rating	3	NFPA fire rating	2
NFPA reactivity rating	2	NFPA special instruction	
Vapor hazard ratio (VHR)			
Historical exceedance percentage			
Target organs			

Monitoring Methods Used by OSHA			
Analyte code (IMIS no.)	2360		
Sampling group			
Sampler/Sampling media	XAD-2 tube (100/50 mg) [SKC 226-30-04]		
Sampling time*	30-200 L		
Sampling volume (TWA)*	0.01- 1 L/min		
Sampling flow rate (TWA)*			
Sampling volume (STEL/Peak/C)*			
Sampling flow rate (STEL/Peak/C)*			
Analytical method instruments	GC-PID		
Method reference	NIOSH 2533 (fully validated)		
Notes			
Special requirements			

* All sampling instructions above are recommended guidelines for OSHA Compliance Safety and Health Officers (CSHOs), please see the corresponding OSHA method reference for complete details.

Wipe Method	
Sampler/Sampling media	

Bulk Method

On-Site Screening Techniques			
Device			
Model/Type			
Sampling information (see manufacturer instructions)			

Exposure Limits							
OSHA PEL 8-hour TWA (ST) STEL (C) Ceiling Peak		NIOSH REL Up to 10-hour TWA (ST) STEL (C) Ceiling		ACGIH TLV® 8-hour TWA (ST) STEL (C) Ceiling		CAL/OSHA PEL 8-hour TWA (ST) STEL (C) Ceiling Peak	
PEL-TWA	0.075 mg/m ³	REL-TWA	0.075 mg/m ³	TLV-TWA	0.1 mg/m ³ [1992]	PEL-TWA	0.075 mg/m ³
PEL-STEL		REL-STEL		TLV-STEL		PEL-STEL	
PEL-C		REL-C		TLV-C		PEL-C	
Skin notation	Y	Skin notation	Y	Skin notation	Y	Skin notation	Y
Notes: See 29 CFR 1910.1000 Table Z-1.OSHA Construction and Maritime Industries PEL is 0.1 mg/m ³ . See 29 CFR 1926.55 Appendix A and 29 CFR 1915.1000 Table Z-Shipyards.		Notes:		Notes:		Notes:	
Health factors: See NIH-NLM PubChem.		IDLH	40 mg/m ³				
Carcinogenic classifications: IARC-3, TLV-A4		Notes:					
AIHA emergency response planning guidelines - ERPG-1/ERPG-2/ERPG-3:							

Additional Resources and Literature References
NOAA: CAMEO Chemicals - Tetraethyl lead, liquid
NIOSH: Pocket Guide to Chemical Hazards - Tetraethyl lead (as Pb)
Literature References
<ul style="list-style-type: none"> ACGIH: <i>Documentation of the Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)</i> - Tetraethyl lead [78-00-2], as Pb. See annual publication for most recent information.

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UNITED STATES DEPARTMENT OF LABOR

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