

Occupational Safety and Health Administration

COAL TAR PITCH VOLATILES (BENZENE-SOLUBLE FRACTION), (PYRENE, PHENANTHRENE, ACRIDINE, CHRYSENE, ANTHRACENE AND BENZO(A)PYRENE)‡

Chemical Identification			
CAS#	65996-93-2		
Formula	Mixture		
Synonyms	coal tar pitch high temperature; oil pitch; pitch; CTPHT; coal tar distillates; other synonyms vary depending upon the specific compound (e.g., pyrene, phenanthrene, acridine, chrysene, anthracene and benzo(a)pyrene).		
Physical Properties			
Physical description	Black viscous liquid with an odor of aromatic solvent.		
Boiling point	>150°F	Molecular weight	
Freezing point/melting point		Vapor pressure	depends upon the specific compound
Flash point	>842°F	Vapor density	
Specific gravity	>1.1	Ionization potential	
Lower explosive limit (LEL)		Upper explosive limit (UEL)	
NFPA health rating		NFPA fire rating	

Chemical Identification			
NFPA reactivity rating		NFPA special instruction	
Monitoring Methods Used by OSHA			
Analyte code (IMIS no.)	0700		
Sampling group			
Sampler/Sampling media	Coal Tar Pitch Volatiles (CTPV) Sampling Filters and Cassette [SLTC109]		
Sampling time*	480 min		
Sampling volume (TWA)*	960 L		
Sampling flow rate (TWA)*	2 L/min		
Sampling volume (STEL/Peak/C)*			
Sampling flow rate (STEL/Peak/C)*			
Analytical method instruments	HPLC		
Method reference	OSHA 58 (fully validated)		
Notes	After sampling, filter must be transferred to a vial with a teflon-lined cap. Sample must be protected from direct sunlight. If chemicals are present that may be soluble in benzene, such as sulfur, please note them on the 91A form, because additional		

Monitoring Methods Used by OSHA

	analyses may be possible to determine the extent of interference.		
Special requirements	These media are prepared by SLTC as needed and are not available for immediate shipment. Please allow time for SLTC to prepare these media prior to sampling.		

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	
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Bulk Method

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On-Site Screening Techniques

Device						
Model/Type						
Sampling information (see manufacturer instructions)						

Exposure Limits

OSHA PEL 8-hour TWA (ST) STEL	NIOSH REL Up to 10-hour TWA	ACGIH TLV® 8-hour TWA	Cal/OSHA PEL 8-hour TWA (ST) STEL
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On-Site Screening Techniques

(C) Ceiling Peak		(ST) STEL (C) Ceiling		(ST) STEL (C) Ceiling		(C) Ceiling Peak	
PEL-TWA	0.2 mg/m ³ (benzene-soluble fraction)	REL-TWA	0.1 mg/m ³ (cyclohexane-extractable fraction)	TLV-TWA	0.2 mg/m ³ (benzene-soluble aerosol) [1984]	PEL-TWA	0.2 mg/m ³
PEL-STEL		REL-STEL		TLV-STEL		PEL-STEL	
PEL-C		REL-C		TLV-C		PEL-C	
Skin notation	N	Skin notation	N	Skin notation	N	Skin notation	N
Notes: See 29 CFR 1910.1000 Table Z-1 and 1910.1002 - Coal tar pitch volatiles; interpretation of term.		Notes: CARCINOGEN (Ca). See Appendix A, NIOSH Potential Occupational Carcinogens and Appendix C, Supplementary Exposure Limits.		Notes: BEI®		Notes:	
Health factors: See NIH-NLM PubChem .		IDLH	80 mg/m ³				
Carcinogenic classifications: IARC-1, NIOSH-Ca, NTP-K, TLV-A1		Notes: Ca					

AIHA emergency response planning guidelines - ERPG-1/ERPG-2/ERPG-3:

Additional Resources and Literature References

NOAA: CAMEO Chemicals - Not listed

NIOSH: Pocket Guide to Chemical Hazards - [Coal tar pitch volatiles](#)

Literature References

Additional Resources and Literature References

- ACGIH: *Documentation of the Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) - Coal Tar Pitch Volatiles*. See annual publication for most recent information.
- Bingham, E., Cohrssen, B., Powell, C.H.: *Patty's Toxicology Volumes 1-9* 5th ed. John Wiley & Sons. New York, N.Y. p. 1:773, 2001.
- California Occupational Safety & Health Standards Board: [Initial](#) and [Final](#) Statement of Reasons August 3, 2010.
- Jongeneelen, F.: Biological exposure limit for occupational exposure to coal tar pitch volatiles at cokeovens. *Int Arch Occup Environ Health*. 63(8):511-516, 1992.
- NIOSH: *Occupational Health Guideline for Coal Tar Pitch Volatiles*. 1978
- NIOSH/CEC/IPCS: *International Chemical Safety Cards - Coal Tar Pitch*. March 2002.