

TLVs® L820.035
**Threshold Limit Values
for
Chemical Substances
and
Physical Agents
in the
Work Environment
with
Intended Changes
for
1983-84**



ACGIH

ISBN: 0-836712-45-7

Substance	(CAS #)	TWA		STEL	
		ppm ^(*)	mg/m ³ ^(*)	ppm ^(*)	mg/m ³ ^(*)
Phenythydrazine (100-63-0) — Skin		5, A2	20, A2	10, A2	45, A2
†Propylene glycol dinitrate (6423-43-4) — Skin		0.05	0.3	—	—
Rhodium, Insoluble compounds, as Rh		—	1	—	—
Soluble compounds, as Rh		—	0.01	—	—
Sulprofos (35400-43-2)		—	1	—	—
o-Toluidine (95-53-4) — Skin		2, A2	9, A2	—	—
Trichloroethylene (79-01-6)		50	270	200	1,080
Vinylidene chloride (75-35-4)		5	20	20	80

Capital letters A, B, D & E refer to Appendices; C denotes ceiling limit
†1983 Revision or Addition

NOTICE OF INTENDED CHANGES MINERAL DUSTS

Substance	TLV
SILICA, SiO₂	
Crystalline	
Quartz	0.1 mg/m ³ , Respirable dust
(14808-60-7)	0.3 mg/m ³ , Total dust
Cristobalite	0.05 mg/m ³ , Respirable dust
(14464-46-1)	0.15 mg/m ³ , Total dust
Tridymite	0.05 mg/m ³ , Respirable dust
(15468-32-3)	0.15 mg/m ³ , Total dust
Silica, fused	Use quartz values.
(60676-86-0)	
Tripoli	Use respirable quartz value.
(1317-95-9)	
Silica, amorphous	5 mg/m ³ , Respirable dust
(7631-86-9)	10 mg/m ³ , Total dust
SILICATES (< 1% quartz)	
Diatomaceous earth	5 mg/m ³ , Respirable dust
(uncalcined)	10 mg/m ³ , Total dust
(60676-86-0)	
Graphite (natural)	2.5 mg/m ³ , Respirable dust
(7782-42-5)	5 mg/m ³ , Total dust

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Mica (12001-26-2)	3 mg/m ³ , Respirable dust
	6 mg/m ³ , Total dust
Perlite	5 mg/m ³ , Respirable dust
	10 mg/m ³ , Total dust
Portland Cement	5 mg/m ³ , Respirable dust
	10 mg/m ³ , Total dust
Precipitated silica	5 mg/m ³ , Respirable dust
and silica gel	10 mg/m ³ , Total dust
Soapstone	3 mg/m ³ , Respirable dust
	6 mg/m ³ , Total dust
Talc (containing	Use asbestos TLV. However,
asbestos fibers)	should not exceed 2 mg/m ³
	respirable dust.

COAL DUST

If > 5% quartz, use respirable quartz value.

Generic Listing

All mppcf values for mineral dusts will be eliminated in favor of equivalent respirable mass or total mass values, i.e., Appendix F.

Footnote

j) Containing < 1% quartz; if quartz content > 1%, use quartz values.

APPENDIX A Carcinogens

The Committee lists below those substances in industrial use that have proven carcinogenic in man or have induced cancer in animals under appropriate experimental conditions. Present listing of those substances carcinogenic for man takes two forms: Those for which a TLV has been assigned (1a) and those for which environmental conditions have not been sufficiently defined to assign a TLV (1b).

A1a. Human Carcinogens. Substances, or substances associated with industrial processes recognized to have carcinogenic or cocarcinogenic potential, with an assigned TLV:

	TLV
** Acrylonitrile — Skin	2 ppm
Asbestos	
Amosite	0.5 fiber > 5μm/cc
Chrysotile	2 fibers > 5μm/cc
Crocidolite	0.2 fiber > 5μm/cc
Other forms	2 fibers > 5μm/cc

**See Notice of Intended Changes.

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bis (Chloromethyl) ether	0.001 ppm
Chromite ore processing (chromate)	0.05 mg/m ³ , as Cr
Chromium (VI), certain water insoluble compounds	0.05 mg/m ³ , as Cr
Coal tar pitch volatiles	0.2 mg/m ³ , as benzene solubles
Nickel sulfide roasting, fume & dust	1.0 mg/m ³ , as Ni
<u>Vinyl chloride</u>	<u>5 ppm</u>

A1b. *Human Carcinogens.* Substances, or substances associated with industrial processes, recognized to have carcinogenic potential without an assigned TLV:

4-Aminodiphenyl (p-Xenylamine) — Skin
Benzidine — Skin
β-Naphthylamine
4-Nitrodiphenyl

For the substances in 1b, no exposure or contact by any route — respiratory, skin or oral, as detected by the most sensitive methods — shall be permitted. The worker should be properly equipped to insure virtually no contact with the carcinogen.

A2. *Industrial Substances Suspect of Carcinogenic Potential for MAN.* Chemical substances or substances associated with industrial processes, which are suspect of inducing cancer, based on either (1) limited epidemiologic evidence, exclusive of clinical reports of single cases, or (2) demonstration of carcinogenesis in one or more animal species by appropriate methods.

Acrylonitrile — Skin	2 ppm
Amitrol	—
Antimony trioxide production*	—
Arsenic trioxide production	—
Benzene	10 ppm
Benzo(a)pyrene	—
Beryllium	2.0 μg/m ³

*Cigarette smoking can enhance the incidence of respiratory cancers from this or others of these substances or processes

† 1, 3-Butadiene	—
Cadmium oxide production	—
Carbon tetrachloride — Skin	5 ppm
Chloroform	10 ppm
‡ Chloromethyl methyl ether	—
Chromates of lead and zinc, as Cr	0.05 mg/m ³
Chrysene	—
3, 3'-Dichlorobenzidine — Skin	—
Dimethylcarbamiyl chloride	—
1, 1-Dimethyl hydrazine — Skin	0.5 ppm
Dimethyl sulfate — Skin	0.1 ppm
Ethylene dibromide — Skin	—
Ethylene oxide	1 ppm
† Formaldehyde	1 ppm
Hexachlorobutadiene	0.02 ppm
Hexamethyl phosphoramide — Skin	—
Hydrazine — Skin	0.1 ppm
4, 4'-Methylene bis (2-chloroaniline) — Skin	0.02 ppm
Methyl hydrazine — Skin	0.2 ppm
Methyl iodide — Skin	2 ppm
2-Nitropropane	10 ppm
N-Nitrosodimethylamine — Skin	—
N-Phenyl-beta-naphthylamine	—
Phenylhydrazine — Skin	5 ppm
Propane sulfone	—
beta-Propiolactone	0.5 ppm
‡ Propyleneimine — Skin	2 ppm
o-Tolidine	—
o-Toluidine — Skin	2 ppm
Vinyl bromide	5 ppm
Vinyl cyclohexene dioxide	10 ppm

For the above, worker exposure by all routes should be carefully controlled to levels consistent with the animal and human experience data (see Documentation), including those substances with a listed TLV

†1983 Addition
‡1983 Adoption.