

Threshold Limit Values For 1963



Adopted at the 25th Annual Meeting of the
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B003215

LAM021607

6113
18464

Substance	ppm*	Mg/M ³ **
Zinc oxide fume	—	5
Zirconium compounds (as Zr)	—	5

Radioactivity: For permissible concentrations of radio-isotopes in air, see U. S. Department of Commerce, National Bureau of Standards, Handbook 69, "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radioisotopes in Air and in Water for Occupational Exposure," June 5, 1959. Also, see U. S. Department of Commerce, National Bureau of Standards, Handbook 59, "Permissible Dose from External Sources of Ionizing Radiation," September 24, 1954, and addendum of April 15, 1958.

Note: The word "Skin" following a substance indicates that the substance can penetrate the skin; to contribute to the exposure and threshold limit value should be reduced accordingly.

* Parts of vapor or gas per million parts of air by volume at 25°C and 760 mm. Hg pressure.

** Approximate milligrams of particulate per cubic meter of air.

A Numbers, See Appendix A

MINERAL DUSTS

Substance	m.p.p.c.f.†
SILICA	
Crystalline	
Quartz, Threshold Limit calculated	250
from the formula	% SiO ₂ ‡ + 5
Cristobalite " " "	
Amorphous, including natural	
diatomaceous earth	20
SILICATES (less than 1% crystalline silica)	
Asbestos	5
Mica	20
Soapstone	20
Talc	20
Portland Cement	50
Miscellaneous (less than 1% crystalline silica)	50
Conversion factors	
mppcf x 35.3 = million particles per cubic meter	
= particles per c.c.	

† Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques.

‡ The percentage of crystalline silica in the formula is the amount determined from air-borne samples, except in those instances in which other methods have been shown to be applicable.

† 1963 Revision.

TENTATIVE VALUES

Substance	ppm*	Mg/M ³ **
C tert. Butyl chromate (as CrO ₃)—Skin	—	0.1
† Calcium oxide	—	5
Camphor	—	2
† Copper fume	—	0.1
Dusts & Mists	—	1.0
DDVP (O, O-Dimethyl-2,2-dichloro-vinyl phosphate)	—	1
† Demeton (R) (Systox)	—	0.1
Endrin (1,2,3,4,10,10-hexachloro-6, 7-epoxy-1,4,4a,5,6,7,8,8a-octa hydro 1,4-endo-5,8-dimethano-naphthalene)—Skin	—	0.1
Epichlorohydrin	5	19
Ethanolamine	3	6
† Graphite	—	15 mppcf
† Hafnium	—	0.5
Heptachlor (1,4,5,6,7,8,8a-heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene)	—	0.5
† Methylamine	25	31
† Methyl Methacrylate	100	410
† C Methylene bis phenylisocyanate	0.02	0.2
† Mineral Wool (Fiberglas)	—	2
† Naphthalene	10	50
Oil (mineral)	—	5
† β-Propiolactone	—	A ¹
† Silver	—	0.05
† Tantalum	—	5
† 1,1,1,2-Tetrachloro-2,2-difluoroethane	1000	8340
† 1,1,2,2-Tetrachloro-1,2-difluoroethane	500	4170
† Tetraethyl lead	—	0.075
† Tin (inorganic compounds)	—	2
(organic compounds as Sn)—Skin	—	0.1

† 1962 Additions.

* Parts of vapor or gas per million parts of air by volume at 25°C and 760 mm. Hg pressure.

** Approximate milligrams of particulate per cubic meter of air.

A Numbers, See Appendix A

Appendix A

A¹ Benzidines. Because of high incidence of bladder tumors in man, any exposure, including skin, is extremely hazardous.

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