PLAINTIFF'S
EXHIBIT
DUP-1801

TOXICITY

THRESHOLD LIMIT VALUES OF AIR CONTAMINANTS

SAFETY ENGINEERING STANDARD

ISSUED	S 2 T
APRIL 1961	
REVISED JAN 1966	Page 1 of 6

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1. SCOPE

This standard provides a list of threshold limit values (TLV's) of air contaminants to provide criteria for safe Company work environments.

2. INTERPRETATION OF TLV'S

2.1 The threshold limit values refer to air-borne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect, subject to the limitations given in this standard.

2.2 The listed TLV's are recommended values of the American Conference of Governmental Industrial Hygienists (ACGIH), and are reprinted with their permission. The values are reviewed and published annually by ACGIH.*

2.3 TLV's sometimes are referred to as MAC's, maximum acceptable concentrations, maximum allowable concentrations, or maximal acceptable concentrations. The American Standards Association publishes a series of standards listing MAC's, maximal acceptable concentrations, which are peak values that should not be exceeded in a normal work day. On the other hand, TLV's of ACGIH in Tables 1 and 2 (if not given a "C" listing) are time-weighted average concentrations for a normal work day. The amount by which these concentrations may be exceeded for short periods without injury to health depends upon a number of factors such as the nature of the contaminant, whether very high concentrations even for short periods produce acute poisoning, whether the effects are cumulative, the frequency with which high concentrations occur, and the length of such periods. All must be considered in deciding whether a hazardous situation exists.

2.4 Because time-weighted average concentrations for certain fast-acting substances are inappropriate, a "C" designation or "ceiling" has been affixed to such values showing that the threshold limit value should not be exceeded at any time. Short-period concentrations for other compounds may vary a reasonable amount above the recommended TLV's, if an equivalent fluctuation below the limit occurs. The suggested fluctuation factors for TLV's are as follows:

TLV Range (PPM or Mg per Cu M)	Suggested Fluctuation Factor for TLV's for Periods up to 15 Minutes (multiply TLV by given factor)
0 to 1	3
1 + to 10	2
10 + to 100	1.5
100 + to 1000	1.25

2.5 Threshold limit values should be used as guides in the control of health hazards, and should not be regarded as fine lines between safe and dangerous concentrations. Tabulated TLV's must be used with discretion as bench marks toward the establishment of safe working environments. Many situations may require detailed review by specialized engineers, toxicologists, or both, to avoid over or under design of control measures. For additional information on the toxicity of chemicals and the health hazard that may be associated with them, refer to the Haskell Laboratory for Toxicology and Industrial Medicine.

2.6 Threshold limits are based upon the best available information from industrial experience, from experimental human and animal studies and, when possible, from a combination of these. The basis may differ from substance to substance; protection against impairment of health may be the guiding factor for some, whereas a reasonable freedom from irritation, narcosis, nuisance, or other forms of stress may dominate the basis for others.

3. LIMITATIONS

3.1 Because of wide variation in individual susceptibility, exposure of an occasional individual at or even below the threshold limit may not prevent discomfort, aggravation of a pre-existing condition, or occupational illness.

3.2 Although most threshold limits have built-in safety factors, these are not generally large enough to take care of gross deviations from the normal environment. For example, continuous work at temperatures above 90 F, or overtime exceeding the work week more than 50 percent, might be considered gross deviations.

3.3 These limits are intended for use in the field of industrial hygiene and should be interpreted and applied only by persons trained in this field. They are not intended for use, or for modification for use, (1) as a relative index of toxicity, by making a ratio of two limits,

* This revision includes the 1965 values

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(2) in the evaluation or control of community air pollution or air-pollution nuisances, (3) in estimating the toxic potential of continuous, uninterrupted exposure, (4) as proof or disproof of an existing disease or physical condition, or (5) for adoption by countries whose working conditions differ from those in the United States.

3.4 Exposure to mixtures of two or more substances requires special consideration because effects may be disproportionate to the concentrations of individual compounds.

3.5 Where state codes or local plant rules specify TLV's different from those in the tables, the lower of the two values should be used for the design of control facilities.

4. DESCRIPTION OF TABLES

4.1 TLV's are arranged in two sections as follows:

Table 1—Recommended and Tentative Values
Table 2—Respirable Dusts

4.2 The definitions of abbreviations in the tables are given below:

PPM = Parts of vapor or gas per million parts of air by volume at 25 C and 760 mm Hg pressure

Mg per Cu M = Milligrams per cu meter of air (tabulated values may be approximate for gases and vapors)

= 0.041 x mol wt x ppm at 25 C

MPPCF = Millions of particles per cu ft of air, based upon impinger samples counted by light-field techniques

Mol Wt = Molecular weight

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TABLE I — RECOMMENDED VALUES
(In Alphabetical Order)

Substance	PPM	Mg per Cu M	Substance	PPM	Mg per Cu M	Substance	PPM	Mg per Cu M
Acetaldehyde	200	360	Carbon tetrachloride — skin	10	65	* Dibutylphosphate	2 †	10 †
Acetic acid	10	25	* α-Chlorobenzylidene malononitrile (OCBM)	0.05 †	0.4†	* Dibutylphthalate	—	10 †
Acetic anhydride	5	20	Chlordane (1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene) — skin	—	0.5	C o-Dichlorobenzene	50	300
Acetone	1,000	2,400	Chlorinated camphene, (toxaphene) — skin	—	0.5	p-Dichlorobenzene	75	450
Acetonitrile	40	70	Chlorinated diphenyl oxide	—	0.5	Dichlorodifluoromethane	1,000	4,950
Acetylene tetrabromide	1	14	*C Chlorine	1 †	3	1,3-Dichloro-5,5-dimethyl hydantoin	—	0.2 †
Acrolein	0.1	0.25	Chlorine dioxide	0.1	0.3	1,1-Dichloroethane	100	400
Acrylonitrile — skin	20	45	C Chlorine trifluoride	0.1	0.4	1,2-Dichloroethane (ethylene dichloride)	50	200
Aldrin (1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-dimethanonaphthalene) — skin	—	0.25	C Chloroacetaldehyde	1	3	1,2-Dichloroethylene	200	790
Allyl alcohol — skin	2	5	Chlorobenzene (monochlorobenzene)	75	350	C Dichloroethyl ether — skin	15	90
Allyl chloride	1	3	Chlorobromomethane	200	1,050	Dichloromonofluoromethane	1,000	4,200
C Allyl glycidyl ether (AGE)	10	45	Chlorodiphenyl (42% chlorine) — skin	—	1	C 1,1-Dichloro-1-nitroethane	10	60
Allyl propyl disulfide	2	12	Chlorodiphenyl (54% chlorine) — skin	—	0.5	Dichlorotetrafluoroethane	1,000	7,000
* 2-Aminopyridine	0.5 †	2 †	C Chloroform (trichloromethane)	50	240	Dieldrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4,5,8-dimethanonaphthalene) — skin	—	0.25
Ammonia	50	35	1-Chloro-1-nitropropane	20	100	Diethylamine	25	75
Ammonium sulfamate (Ammate)	—	15	Chloroprene	0.1	0.7	* Diethylamino ethanol — skin	10 †	50 †
n-Amyl acetate	100	525	Chloropyrene (2-chloro-1,3-butadiene) — skin	25	90	Difluorodibromomethane	100	860
sec-Amyl acetate	125 †	650 †	Chromic acid and chromates (as CrO_3)	—	0.1	C Diglycidyl ether (DGE)	0.5	2.8
Amyl alcohol (isoamyl alcohol)	100	360	* Coal tar pitch volatiles (benzene soluble fraction) (anthracene, BaP, phenanthrene, acridine chrysene, pyrene)	—	0.2 †	Diisobutyl ketone	50	290
Aniline — skin	5	19	Cobalt	—	0.5	Dimethyl acetamide — skin	10	35
Anisidine (o,p-isomers) — skin	—	0.5 †	* Copper Fume	—	0.1	Dimethyl 1,2-dibromo 2,2-dichloroethyl phosphate, (Dibrom)	—	3 †
Antimony and compounds (as Sb)	—	0.5	* Dusts & Mists	—	1.0	Dimethylamine	10 †	18 †
ANTU (alpha naphthyl thiourea)	—	0.3	Cotton Dust (raw)	—	1 †	Dimethylaniline (N-dimethyl-aniline) — skin	5	25
* Asphalt (petroleum) (Gutbier) — skin	—	0.2 †	Crag herbicide (sodium 2-(2,4-dichlorophenoxy) ethanol hydrogen sulfate)	—	15	Dimethylformamide — skin	10 †	30 †
Arsenic & compounds (as As)	—	0.5	Cresol (all isomers) — skin	5	22	1,1-Dimethylhydrazine — skin	0.5	1
Arsine	0.05	0.2	* Crotonaldehyde	2 †	6 †	Dimethylsulfate — skin	1	5
Barium (soluble compounds)	—	0.5	* Cumene — skin	50 †	245 †	Dinitrobenzene (all isomers) — skin	—	1
C Benzene (benzol) — skin	25	80	Cyanide (as CN) — skin	—	5	Dinitro-o-cresol — skin	—	0.2
Benzidine — skin	—	A1	* Cyclohexane	300 †	1,050 †	Dinitrotoluene — skin	—	1.5
Benzoyl peroxide	—	5 †	Cyclohexanol	50	200	Dioxane (diethylene dioxide) — skin	100	360
Benzyl chloride	1	5	Cyclohexanone	50	200	Diproxylene glycol methyl ether — skin	100	600
Beryllium	—	0.002	Cyclohexene	300 †	1,015 †	Di sec amyl phthalate (Di-3-ethylbutyl-phthalate)	—	5 †
Boron oxide	—	15	Cyclopentadiene	75 †	200 †	Endrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro 1,4-endo-5,8-dimethanonaphthalene) — skin	—	0.1
C Boron trifluoride	1	3	2,4-D (2,4-dichlorophenoxyacetic acid)	—	10	* Epichlorhydrin — skin	5	19
Bromine	0.1	0.7	DDT (2,2-bis (p-chlorophenyl)1,1,1-trichloroethane) — skin	—	1	EPN (O-ethyl O-p-nitrophenyl thionobenzene-phosphonate) — skin	—	0.5
* Bromoform — skin	5 †	50 †	DDVP (O,O-Dimethyl-2,2-dichlorovinyl phosphate)	—	1	Ethanolamine	3 †	6 †
Butadiene (1,3-butadiene)	1,000	2,200	Decaborane — skin	0.05	0.3	Ethyl acetate	400	1,400
2-Butanone (methyl ethyl ketone)	200	590	Demeton (Systox) — skin	—	0.1	Ethyl acrylate — skin	25	100
2-Butoxy ethanol (butyl cellosolve)	50	240	Diacetone alcohol (4-hydroxy-4-methyl-2-pentanone)	50	240	Ethyl alcohol (ethanol)	1,000	1,900
* n-Butyl acetate	150 †	710 †	* Diazomethane	0.2 †	0.4 †	* Ethyl amyl	10 †	18 †
* sec-Butyl acetate	200†	950 †	Diborane	0.1	0.1	* Ethyl sec amyl ketone (5-Methyl-3-heptanone)	25 †	130 †
* tert-Butyl acetate	200 †	950 †	*C 1,2-Dibromoethane (ethylene dibromide) — skin	25 †	190 †	*C Ethyl benzene	100 †	435 †
Butyl alcohol	100	300						
tert Butyl alcohol	100	300						
C Butylamine	5	15						
C tert Butyl chromate (as CrO_3) — skin	—	0.1						
n-Butyl glycidyl ether (BGE)	50	270						
Butyl mercaptan	10	35						
p-tert Butyltoluene	10	60						
* Cadmium (metal dust and soluble salts)	—	0.2 †						
Cadmium oxide fume	—	0.1						
Calcium arsenate	—	1						
Calcium oxide	—	5 †						
Camphor	—	2						
Carbaryl (Sevin)	—	5 †						
* Carbon black	—	3.5 †						
Carbon dioxide	5,000	9,000						
Carbon disulfide — skin	20	60						
* Carbon monoxide	50 †	55 †						

For notes — see page 5

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THRESHOLD LIMIT VALUES OF AIR CONTAMINANTS

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TABLE 1 – RECOMMENDED VALUES (CONT'D)
(In Alphabetical Order)

Substance	PPM	Mg per Cu M
Ethyl bromide	200	890
• Ethyl butyl ketone (3-Heptanone)	50 †	230 †
Ethyl chloride	1,000	2,600
Ethyl ether	400	1,200
Ethyl formate	100	300
Ethyl silicate	100	850
Ethylene chlorohydrin – skin	5	16
Ethylenediamine	10	30
C Ethylene glycol dinitrate – skin	0.2	1.2
Ethylene imine – skin	0.5 †	1.0 †
Ethylene oxide	50	90
C Ethylmercaptan	10 †	25 †
• N-Ethylmorpholine – skin	20 †	94 †
2-Ethylhexanol – skin	200	740
2-Ethylhexyl acetate (Collective exposure) – skin	100	540
Ferbam (ferric dimethyl dithiocarbamate)	–	15
Ferrovanadium dust	–	1
• Fibrous glass	–	5 †
Fluorides (as F)	–	2.5
Fluorine	0.1	0.2
Fluorotrichloromethane	1,000	5,600
C Formaldehyde	5	6
• Formic acid	5 †	9 †
Furfural – skin	5	20
Furfuryl alcohol	50	200
Gasoline	500	2,000
Glycidol (2,3-epoxy-1-propanol)	50	150
• Heliarm	–	0.5
• Heptachlor (1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene) – skin	–	0.5
Heptane (n-heptane)	500	2,000
Hexachloroethane – skin	1 †	10 †
Hexane (n-hexane)	500	1,800
Hexanone (methyl butyl ketone)	100	410
• sec-Hexyl acetate	50	300
Hexone (methyl isobutyl ketone)	100	410
Hydrazine – skin	1	1.3
Hydrogen bromide	3	10
C Hydrogen chloride	5	7
Hydrogen cyanide – skin	10	11
Hydrogen fluoride	3	2
Hydrogen peroxide, 90%	1	1.4
Hydrogen selenide	0.05	0.2
Hydrogen sulfide	10 †	15 †
Hydroquinone	–	2
C Iodine	0.1	1
• Iron oxide fume	–	10 †
• Isoamyl acetate	100 †	525 †
• Isobutyl acetate	150 †	700 †
Isophorone	25	140
• Isopropyl acetate	250 †	950 †
Isopropylamine	5	12
Isopropyl glycidyl ether (IGE)	50	240
Ketene	0.5	0.9
• L.P.G. (Liquid petroleum gas)	1,000 †	1,800 †
Lead	–	0.2
Lead arsenate	–	0.15
Lindane (1-alpha,2-alpha,3-beta,4-alpha,5-alpha,6-beta-hexachlorocyclohexane, gamma isomer) – skin	–	0.5
Lithium hydride	–	0.025
Magnesium oxide fume	–	15
Malathion (o,o-dimethyl dithiophosphate of diethyl mercaptosuccinate) – skin	–	15
Maleic anhydride	–	5 †
C Manganese	–	5
Mercury – skin	–	0.1
Mercury (organic compounds) – skin	–	0.01
Mesityl oxide	25	100
Methanethiol (2,2-di-p-methoxy-phenyl-1,1-trichloroethane)	–	15
Methyl acetate	200	610
Methyl acetylene (propyne)	1,000	1,650
Methyl acetylene-propadiene mixture, (MAPP)	1,000 †	1,800 †
Methyl acrylate – skin	10	35
Methylal (dimethoxy-methane)	1,000	3,100
Methyl alcohol (methanol)	200	260
• Methylamine	10 †	12 †
• Methyl n-amyl ketone (2-Heptanone)	100 †	465 †
C Methyl bromide – skin	20	80
Methyl cellosolve (2-methoxy-ethanol) – skin	25	80
Methyl cellosolve acetate (ethylene glycol monomethyl ether acetate) – skin	25	120
C Methyl chloride	100	210
Methyl chloroform (1,1,1-trichloroethane)	350	1,900
Methylcyclohexane	500	2,000
Methylcyclohexanol	100	470
o-Methylcyclohexanone – skin	100	460
Methyl ethyl ketone (2-Butanone)	200	590
Methyl formate	100	250
• Methyl iodide – skin	5 †	28 †
Methyl isobutyl carbinol (methyl amyl alcohol) – skin	25	100
• Methyl isocyanate – skin	0.02 †	0.05 †
Methyl mercaptan	10 †	20 †
Methyl methacrylate	100 †	410 †
C alpha-Methyl styrene	100	480
C Methylene bis phenyl isocyanate (MDI)	0.02	0.2
Methylene chloride (dichloromethane)	500	1,730
Molybdenum (soluble compounds)	–	5
(insoluble compounds)	–	15
Monomethyl aniline – skin	2	9
C Monomethyl hydrazine – skin	0.2 †	0.35 †
Morpholine – skin	20 †	70 †
Naphtha (coal tar)	200	800
Naphtha (petroleum)	500	2,000
Naphthalene	10 †	50 †
β-Naphthylamine	–	Ap
Nickel carbonyl	0.001	0.007
Nickel, metal and soluble compounds	–	1 †
Nicotine – skin	–	0.5
Nitric acid	2 †	5 †
p-Nitroaniline – skin	1	6
Nitrobenzene – skin	1	5
p-Nitrochlorobenzene – skin	–	1 †
Nitroethane	100	310
C Nitrogen dioxide	5	9
Nitrogen trifluoride	10 †	29 †
C Nitroglycerin – + BGDN – skin	0.2	2
Nitromethane	100	250
1-Nitropropane	25	90
2-Nitropropane	25	90
N-Nitrosodimethylamine (dimethyl nitrosamine) – skin	Ap	–
Nitrotoluene – skin	5	30
Ozone	100	2,350
Oil mist (mineral)	–	5
Osmium tetroxide	–	0.002
• Oxygen difluoride	0.05 †	0.1 †
• Oxalic acid	–	1 †
Ozone	0.1	0.2
Parathion (O,O-diethyl O-p-nitrophenyl thiophosphate) – skin	–	0.1
Pentaborane	0.005	0.01
Pentachloronaphthalene – skin	–	0.5
Pentachlorophenol – skin	–	0.5
Pentane	1,000	2,950
Pentanone (methyl propyl ketone)	200	700
Perchloroethylene (tetrachloroethylene)	100	670
Perchloromethyl mercaptan	0.1	0.8
Perchloryl fluoride	3	13.5
Phenol – skin	5	19
Phenyl glycidyl ether (PGE)	50	310
p-Phenylene diamine – skin	–	0.1 †
• Phenyl ether (vapor)	1 †	7 †
• Phenyl ether-Diphenyl mixture (vapor)	1 †	7 †
Phenylhydrazine – skin	5	22
Phosgene (carbonyl chloride)	0.1 †	0.4 †
Phosphine	0.3	0.4
Phosphoric acid	–	1
Phosphorus (yellow)	–	0.1
Phosphorus pentachloride	–	1
Phosphorus pentasulfide	–	1
Phosphorus trichloride	0.5	3
Phthalic anhydride	2 †	12 †
Picric acid – skin	–	0.1
• Pival (2-Pivalyl-1,3-indandione)	–	0.1 †
Platinum (soluble salts)	–	0.002
Polyvinyl chloride – ethylene decomposition products	–	Ap
Propane	1,000 †	1,800 †
β-Propiolactone	–	Ap
n-Propyl acetate	200	840
Propyl alcohol (n-propyl alcohol)	400	980
Propyl ether (isopropyl ether)	500	2,100
n-Propyl nitrate	25	110
Propylene dichloride (1,2-dichloropropane)	75	350
• Propylene imine – skin	2 †	5 †

For notes – see page 5

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TABLE 1 – RECOMMENDED VALUES (CONT'D)
(In Alphabetical Order)

Substance	PPM	Mg per Cu M
Propylene oxide	100	240
Pyrethrum	–	5
Pyridine	5	15
Quinone	0.1	0.4
* Rhodium, metal fume and dusts	–	0.1 †
soluble salts	–	0.001 †
Rotenone (commercial)	–	5
Selenium compounds	–	0.2 †
* Selenium hexafluoride	0.05 †	0.4 †
Silver, metal and soluble compounds	–	0.01 †
Sodium fluoroacetate (1080)–skin	–	0.05
Sodium hydroxide	–	2
Stibine	0.1	0.5
Stoddard solvent	500	2,900
Strychnine	–	0.15
C Styrene monomer (phenylethylene)	100	420
Sulfur dioxide	5	13
Sulfur hexafluoride	1,000	6,000
Sulfuric acid	–	1
Sulfur monochloride	1	6
Sulfur pentafluoride	0.025	0.25
Sulfuryl fluoride	5	20
2,4,5T (2,4,5-Trichlorophenoxyacetic acid)	–	10
* Tantalum	–	5
TEDP (tetraethyl dithionopyrophosphate)–skin	–	0.2
Teflon® decomposition products	–.	A⁴
TEPP (tetraethyl pyrophosphate)–skin	–	0.05
Tellurium	–	0.1
* Tellurium hexafluoride	0.02 †	0.2 †
1,1,2,2-Tetrachloroethane–skin	5	35
1,1,1,2-Tetrachloro-2,2-difluoroethane	500 †	4,170 †
* 1,1,2,2-Tetrachloro-1,2-difluoroethane	500	4,170
* Tetraethyl lead (as Pb)–skin	–	0.075
Tetrahydrofuran	200	590
* Tetramethyl lead (TML) (as lead)–skin	–	0.075
* Tetramethyl succinonitrile–skin	0.5 †	3 †
Tetranitromethane	1	8
Tetryl (2,4,6-trinitrophenyl-methylnitramine)–skin	–	1.5
Thallium (soluble compounds)–skin	–	0.1
Thiram (tetramethyl thiuram disulfide)	–	5
* Tin (inorganic compounds)	–	2
(organic compounds)	–	0.1
Titanium dioxide	–	15
Toluene (toluol)	200	750
o-Toluidine–skin	5	22
C Tolylene-2,6-diisocyanate	0.02	0.14
* Tremolite	5 mppcf †	–
* 1,1,2-Trichloroethane–skin	10 †	45 †
Trichloroethylene	100	535
Trichloronaphthalene–skin	–	5
1,2,3-Trichloropropane	50	300
1,1,2-Trichloro, 1,2,2-trifluoroethane	1,000	7,600
Triethylamine	25	100
Trifluoromonobromomethane	1,000	6,100
Trinitrotoluene–skin	–	1.5
Triorthocresyl phosphate	–	0.1
Triphenyl phosphate	–	3
Turpentine	100	560
Uranium (soluble compounds)	–	0.05
(insoluble compounds)	–	0.25
C Vanadium (V2O5 dust)	–	0.5
(V2O5 fume)	–	0.1
C Vinyl chloride (chloroethylene)	500	1,300
Vinyl toluene	100	480
Warfarin (3 α acetonyl-benzyl -4-hydroxy-coumarin)	–	0.1
* Xylene	100 †	435 †
Xylidine–skin	5	25
Yttrium	–	1 †
Zinc oxide fume	–	5
Zirconium compounds (as Zr)	–	5

Notes:

* 1968 ACGIH revision or addition

Skin Notation. Listed substances followed by the designation "skin" refer to the potential contribution to the overall exposure by the cutaneous route including mucous membranes and eye, either by air-borne, or more particularly, by direct contact with the substance. Vehicles can alter skin absorption. The recommended skin designation is intended to suggest appropriate measures for the prevention of cutaneous absorption so that the threshold limit is not invalidated.

† tentative values

C – indicates ceiling as explained in paragraph 2.4

Δ Numbers, see notes at right

Radioactivity: For permissible concentrations of radioisotopes in air, see U. S. Department of Commerce, National Bureau of Standards, Handbook 69, "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides 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.

Notes:

Δ¹ **Benzidine.** Because of high incidence of bladder tumors in man, any exposure, including skin, is extremely hazardous.

Δ² *β*-Naphthylamine. Because of the extremely high incidence of bladder tumors in workers handling this compound, and the inability to control exposures, *β*-naphthylamine has been prohibited from manufacture, use and other exposures that involve human contact by the State of Pennsylvania.

Δ³ N-Nitrosodimethylamine. Because of extremely high toxicity and presumed carcinogenic potential of this compound, contact by any route should not be permitted.

Δ⁴ Polytetrafluoroethylene* decomposition products. At least one identified component of the decomposition products is extremely toxic, but in the absence of more complete toxicity information and suitable analytic methods, a definite Threshold Limit Value is not recommended at this time but air concentrations should be minimal.

Δ⁵ *β*-Propiolactone. Because of high acute toxicity and demonstrated skin tumor production in animals, contact by any route should be avoided.

*Trade Names: Algoflon, Fluon, Halon, Teflon®, Tetran

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TABLE 2 — RESPIRABLE DUSTS EVALUATED BY COUNT

Substance	mppcf
SILICA	
Crystalline	
Quartz, threshold limit calculated from the formula	$\frac{250}{\%SiO_2 + 5}$
Cristobalite, threshold limit calculated from the formula	
Amorphous, including natural diatomaceous earth	20
SILICATES (less than 1% crystalline silica)	
Asbestos	5
Mica	20
Soapstone	20
Talc	20
Portland cement	50
Graphite	15
MISCELLANEOUS	
"Inert" or Nuisance Particulates	50 (or 15 mg/m³ whichever is the smaller)
Conversion factors mppcf x 35.3 = million particles per cu meter = particles per cc	

* 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.

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