



## Threshold Limit Values (TLV) and Immediately Dangerous to Life and Health (IDLH) values

Matheson Tri-Gas assumes no responsibility for the accuracy of the information listed. As TLV and IDLH values may change, the current guidelines from the following sources should be consulted for up-to-date accuracy.

Sources: TLV-TWA and TLV-STEL data extracted from the 2005 Threshold Limit Values & Biological Exposure Indices, copyright 2005 by the American Conference of Governmental Industrial Hygienists (ACGIH). IDLH values extracted from the NIOSH Pocket Guide to Chemical Hazards, 2004 published by the National Institute for Occupational Safety and Health (NIOSH).

Note: All concentrations in parts per million (ppm) unless otherwise noted. "C" indicates Ceiling Limit.

Substance	TLV TWA	TLV STEL	IDLH
Acetaldehyde	-	25C	2,000
Acetic Acid	10	15	50
Acetone	500	750	2,500
Acetonitrile	20	-	500
Acrolein	-	0.1C	2
Acrylonitrile	2	-	85
Ammonia	25	35	300
Arsine	0.05	-	3
Benzene	0.5	2.5	500
Boron Trifluoride	-	1C	25
Bromine	0.1	0.2	3
1,3 - Butadiene	2	-	2,000
Butane	1,000	-	-
n-Butyl Acetate	150	200	1,700
n-Butyl Acrylate	2	-	-
n-Butyl Alcohol	20	-	1,400
Butyl Mercaptan	0.5	-	500
Carbon Dioxide	5,000	30,000	40,000
Carbon Disulfide	10	-	500
Carbon Monoxide	25	-	1,200
Carbon Tetrachloride	5	10	200
Chlorine	0.5	1	10
Chlorine Dioxide	0.1	0.3	5
Chlorobenzene	10	-	1,000
Chloroform	10	-	50
Chloropicrin	0.1	-	2
Cresol	5	-	250
Cyanogen	10	-	-
Cyanogen Chloride	-	0.3C	-
Cyclohexane	100	-	1,300
Cyclohexanol	50	-	400
Cyclohexanone	20	50	700
Diborane	0.1	-	15
p-Dichlorobenzene	10	-	150
1,1, - Dichloroethane	100	-	3,000
Dimethylamine	5	15	500
Dioxane	20	-	500
Ethanolamine	3	6	30
Ethyl Acetate	400	-	2,000
Ethyl Acrylate	5	15	300
Ethyl Alcohol	1,000	-	3,300
Ethylamine	5	15	600
Ethyl Benzene	100	125	800
Ethyl Chloride	100	-	3,800
Ethylene Dichloride	10	-	50
Ethylene Glycol	-	100 mg/m <sup>3</sup> C	-
Ethylene Oxide	1	-	800
Ethyl Ether	400	500	1,900
Ethyl Mercaptan	0.5	-	500

Substance	TLV TWA	TLV STEL	IDLH
Fluorine	1	2	25
Formaldehyde	-	0.3C	20
Formic Acid	5	10	30
Furfural	2	-	100
Gasoline	300	500	-
Germanium tetrahydride	0.2	-	-
Glutaraldehyde	-	0.05C	-
Heptane	400	500	750
n-Hexane	50	-	1,100
Hydrazine	0.01	-	50
Hydrogen Bromide	-	2C	30
Hydrogen Chloride	-	2C	50
Hydrogen Cyanide	-	4.7C	50
Hydrogen Fluoride	0.5	2C	30
Hydrogen Peroxide	1	-	75
Hydrogen Selenide	0.05	-	1
Hydrogen Sulfide	10	15	100
Iodine	-	0.1C	2
Isopropyl Alcohol	200	400	2,000
Methyl Alcohol	200	250	6,000
Methylamine	5	15	100
Methyl Bromide	1	-	250
Methyl Chloride	50	100	2,000
Methylene Chloride	50	-	2,300
Methyl Ethyl Ketone	200	300	3,000
Methyl Mercaptan	0.5	-	150
Methyl Methacrylate	50	100	1,000
Naphthalene	10	15	250
Nitric Acid	2	4	25
Nitric Oxide	25	-	100
Nitrobenzene	1	-	200
Nitrogen Dioxide	3	5	20
Nitrogen Trifluoride	10	-	1,000
Nitrous Oxide	50	-	-
Octane	300	-	1,000
Ozone	0.05	-	5
Pentane	600	-	1,500
Perchloroethylene	25	100	150
Phenol	5	-	250
Phosgene	0.1	-	2
Phosphine	0.3	1	50
Pyridine	1	-	1,000
Silane	5	-	-
Styrene	20	40	700
Sulfur Dioxide	2	5	100
Sulfur Hexafluoride	1,000	-	-
Toluene	50	-	500
Toluene Diisocyanate	0.005	0.02	2.5
1,2,4 - Trichlorobenzene	-	5C	-
1,1,2 - Trichloroethane	10	-	100
Trichloroethylene	50	100	1,000
Triethylamine	1	3	200
Trimethylamine	5	15	-
Trimethylbenzene	25	-	-
Turpentine	20	-	800
Vinyl Acetate	10	15	-
Vinyl Bromide	0.5	-	-
Vinyl Chloride	1	-	-
Xylenes	100	150	900