



TOXICS

A SHORT LIST OF SOME COMMON TOXIC MATERIALS

Material	TLV/ TWA (ppm)	IDLH (ppm)	LEL (ppm)	LEL (%/Vol)	DENSITY (Air = 1.0)
ACETONE	250	2,500	25,000	2.5	2.0
AMMONIA	25	300	150,000	15.0	0.6
BENZENE	0.1	500	12,000	1.2	2.7
BUTANE	800	-U-	16,000	1.6	2.0
N-BUTYL ACETATE	150	1,700	17,000	1.7	4.0
CARBON DIOXIDE	5,000	40,000	N/C	N/C	1.5
CARBON MONOXIDE	25	1,200	125,000	12.5	1.0
CHLORINE	0.5	10	N/C	N/C	2.5
ETHYLENE OXIDE	1.0	800	30,000	3.0	1.5
ETHYL ETHER	400	1,900	19,000	1.9	2.6
FORMALDEHYDE	0.016	20	70,000	7.0	1.0
GASOLINE	300	-U-	14,000	1.4	3-4.0
HEPTANE	85	750	10,500	1.05	3.5
HEXANE	50	1,100	11,000	1.1	3.0
HYDROGEN CYANIDE	4.7	50	56,000	5.6	0.9
HYDROGEN SULFIDE	10	100	40,000	4.0	1.2
ISOPROPYL ALCOHOL	400	2,000	20,000	2.0	2.1
METHYL ACETATE	200	3,100	31,000	3.1	2.6
METHYL ALCOHOL	200	6,000	60,000	6.0	1.1
METHYL CHLORIDE	50	2,000	81,000	8.1	1.8
METHYL ETHYL KETONE (MEK)	200	3,000	14,000	1.4	2.5
METHYL METHACRYLATE	50	1,000	17,000	1.7	3.5
NITRIC OXIDE	25	100	N/C	N/C	1.0
NITROGEN DIOXIDE (NO2)	1	20	N/C	N/C	1.6
PENTANE	120	1,500	15,000	1.5	2.5
N-PROPYL ACETATE	200	1,700	17,000	1.7	3.5
STYRENE, MONOMER	50	700	9,000	.9	3.6
SULPHUR DIOXIDE	2	100	N/C	N/C	2.2
112 TRICHLOROETHANE	10	100	60,000	6.0	4.6
TOLUENE	100	500	11,000	1.1	3.2
TRICHLOROETHYLENE	50	1,000	80,000	8.0	4.5
TURPENTINE	100	800	8,000	0.8	4.7
VINYL CHLORIDE	1.0	-C-	36,000	3.6	2.2
XYLENE	100	900	9,000	.9	3.7

TLV/TWA Threshold Limit Value/
Time Weighted Average
PPM Parts Per Million
IDLH Immediately Dangerous to Life or Health
-C- = CARCINOGEN
LEL Lower Explosive Limit
DENSITY < 1.0 = lighter than air
> 1.0 = heavier than air
N/C = NOT COMBUSTIBLE

Data from NIOSH "POCKET GUIDE TO CHEMICAL HAZARDS" (2007) and the ACGIH "TLV" HANDBOOK (2016)

Where Federal OSHA, NIOSH and ACGIH differ in toxic limits, the lower value is listed.



COMBUSTIBLES

A SHORT LIST OF SOME COMMON COMBUSTIBLE MATERIALS

Material	LEL (%/Vol)	UEL (%/Vol)	TLV/ TWA		DENSITY (Air = 1.0)
			(ppm)	(ppm)	
ACETONE	2.5	12.8	250	2,500	2.0
ACETYLENE	2.5	100.0	2,500	-A-	.9
AMMONIA	15.0	28.0	25	300	0.6
BENZENE	1.2	7.8	0.1	500	2.7
BUTANE	1.6	8.4	800	-U-	2.0
N-BUTYL ACETATE	1.7	7.6	150	1,700	4.0
DIBORANE	0.8	88.0	0.1	15	1.0
ETHANE	3.0	12.5	-A-	-A-	1.0
ETHANOL	3.3	19.0	1,000	-U-	1.6
ETHYL ACETATE	2.0	11.5	400	2,000	3.0
ETHYL ETHER	1.9	36.0	400	1,900	2.6
ETHYLENE OXIDE	3.0	100.0	0.1	800	1.5
GASOLINE (100 Octane)	1.4	7.6	300	-U-	3-4.0
HEPTANE	1.05	6.7	85	750	3.5
HEXANE	1.1	7.5	50	1,100	3.0
HYDROGEN	4.0	75.0	-A-	-A-	0.1
ISOPROPYL ALCOHOL	2.0	12.7	400	2,000	2.1
METHANE	5.0	15.0	-A-	-A-	0.6
METHANOL	6.0	36.0	200	6,000	1.1
METHYL ETHYL KETONE (MEK)	1.4	11.4	200	3,000	2.5
PENTANE	1.5	7.8	120	1,500	2.5
PROPANE	2.1	9.5	1,000	2,100	1.6
PROPYLENE OXIDE	2.3	36.0	20	400	2.0
STYRENE	0.9	6.8	50	700	3.6
TOLUENE	1.1	7.1	100	500	3.2
TURPENTINE	0.8	? ?	100	800	4.7
VINYL ACETATE	2.6	13.4	4	-U-	3.0
VINYL CHLORIDE	3.6	33.0	1.0	-C-	2.2
XYLENE	.9	6.7	100	900	3.7

LEL Lower Explosive Limit

UEL Upper Explosive Limit

PPM Parts Per Million

TLV/TWA Threshold Limit Value/Time Weighted Average

IDLH Immediately Dangerous to Life or Health

DENSITY < 1.0 = lighter than air
> 1.0 = heavier than air

-A- = ASPHYXIAN

-C- = CARCINOGEN

-U- = DATA NOT AVAILABLE

Data from NIOSH "POCKET GUIDE TO CHEMICAL HAZARDS" (2007) and the ACGIH "TLV" HANDBOOK (2016)

Where Federal OSHA, NIOSH and ACGIH differ in toxic limits, the lower value is listed.