2009-2010

US edition

CHEMICAL GUIDE

www.greenfumehood.com

List of approved chemicals for GreenFumeHood® Technology (GFHT) with proprietary Neutrodine® Filtration

Introduction

This new edition of the **GreenFumeHood® Chemical Guide 2009**
has been developed by **erlab® R&D laboratory**,
worldwide leader in filtration technologies for fume hoods.

This guide is the result of 40 years of research and development into filtration technologies
and demonstrates the expertise of **erlab's® R&D laboratory**
in the field of molecular and particulate filtration.

This booklet is delivered with every fume hood equipped with **GreenFumeHood®** technologies
and includes a list of chemicals certified by erlab® dfs S.A.S. for handling under the conditions
described by the new **AFNOR NF X 15 211: 2009 standard**.

Ensure you have the latest copy of this Chemical Guide.
Do not hesitate to contact our green partners for the study
linked to the Neutrodine® technology lifecycle.

**Please contact erlab® for information regarding
handling of any chemicals which are not listed in this guide.**

Neutrodine Filtration technology Efficiency test certificates

All independent tests have been performed by Intertek, a leading provider of product quality certification.


Intertek
Certificate
awarded to :
Erlab Group
NF X 15 211 Standard
Efficiency Test with Acids


Intertek
Certificate
awarded to :
Erlab Group
NF X 15 211 Standard
Efficiency Test with Solvents

The retention capacities recorded during the tests performed on our filters demonstrate **the technical performance developed by Erlab®.**

Example of test carried out on a GFH® with:
5 modular columns equipped with Neutrodine® filtration technology.

Isopropanol	Cyclohexane	HCl (35%)
3365 gr	4570 gr	13645 gr

These results ensure the highest protection level to the GFH® users.

Official test report for filtration is available for free download on www.greenfumehood.com

NEUTRODINE® FILTRATION TECHNOLOGY PERFORMANCE TESTS PROCEDURE

The Neutrodine® filters are subjected to performance tests conducted according to the requirements described by AFNOR standard NF X 15 211: 2009. The results of the tests given in this guide for the approved chemicals demonstrate the technological performance developed by erlab®.

The apparatus that the tests are performed on was fitted with new filters and installed in a closed space.

The chemical used for the test was evaporated in the fume hood to give a constant concentration during all the operating phases.

The three chemicals selected for the Neutrodine filter performance tests were:
- Isopropanol
- Cyclohexane
- Hydrochloric acid

The concentration of the chemical downstream of the filtration system was checked at least three times an hour during all the filtering fume hood operating phases and was expressed in ppm by volume.

The maximum values of the reference chemicals are given in the list of approved chemicals provided with every Fume Hood equiped with GFH® Technologies.

The test was performed in 8 hour sequences, 16 hours apart.

The Analyzers

Whatever the product being tested, the analysis procedure was adapted so as to obtain a detection threshold of less than 1% of the occupational exposure level or TLV.

The procedure can be one of those described below or any other equivalent method:

- The concentrations of hydrochloric acid in the air were sampled by capturing a known volume of air on a cartridge impregnated with a buffer solution of Na2CO3/NaHCO3. The samples prepared in this way were analyzed by ion chromatography (IC).

- The concentrations of organic gas were sampled by capturing a known volume of air on a cooled cartridge of adsorbent Tenax and active carbon. The samples prepared in this way were analyzed by gas chromatography (GC-FID) after thermal desorption.

The sample prepared in this way was then desorbed by a solution of carbon disulphide (CS2) before being analyzed using a gas chromatograph (GC) equipped with a suitable detector (FID).

Test procedure

The tests were carried out at (20 ± 2) °C with a relative humidity of between 40% and 70%.

The filtering fume hood being tested was placed in a closed test enclosure with an interior volume of between 10 and 50 times the internal volume of the filtering fume hood.

The difference between the temperature inside the filtering fume hood and the temperature of the test enclosure must not exceed 5°C.

The chemical used for the test was introduced using a peristaltic pump, drop by drop into a heated recipient in the centre of the worktop in the filtering fume hood being tested.

The system was set so as to produce the desired concentration to more or less 10% in the filtering fume hood for the whole duration of the test.

When necessary, the recipient was heated to slightly more than the boiling point of the test chemical in order to ensure instant evaporation.

Diagram of the test assembly (Evaporation and air sampling principle)

The air is sampled in three zones according to a procedure to be adapted according to the measurement protocol adopted:
- Zone 1: During the whole test air is regularly sampled 30cm downstream of the filtering system to check the purifying performance of the filtering fume hood being tested;
- Zone 2: As soon as the test begins, (as soon as the evaporation concentration is stable) the air is sampled inside the fume hood, 30cm upstream of the filtering system to check that the concentration released before the filters has evaporated.

All the necessary precautions must be taken during the test to avoid anything affecting the air samples between the sampling zone and the analyzer. Sampling must be carried out so as to provide a measurement result that is representative of the air analyzed (e.g. by using multipoint sampling grids).

Normal operating phase:

The concentration of the chemical used for the test downstream of the filter must not exceed 1% of the authorized occupational exposure limit. The evaporation must last for the entire quantity of the chemical considered (given in the list of approved chemicals supplied by erlab®)

Detection phase:

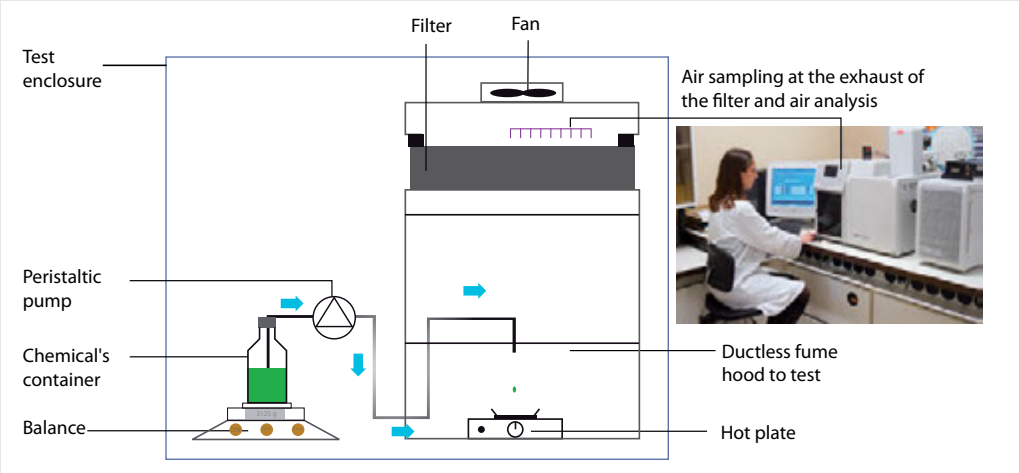
Concentration of the chemical used for the test downstream of the filter must not exceed 1% of the authorized occupational exposure limit for class 1 filtering fume hoods and 50% of the authorized occupational exposure limit for class 2 filtering fume hoods.

Safety phase (for class 1 apparatus): Concentration of the chemical used for the test downstream of the filter must not exceed 50 % of the authorized occupational exposure limit. This phase must not be less than 1/12 of the duration of the normal operating phase.

Filtration test reports:

The test report for each test performed must indicate:
- the reference of the test (name of the laboratory performing the test, date);
- the volume of the test enclosure that the filtering fume hood is placed in;
- the type and reference of the filtering fume hood being tested;
- the type and reference of the filter(s) on the filtering fume hood being tested;
- the nature of the chemical used for the test.

For each phase of the test the report must indicate:
- the duration in hours;
- the chosen weight of chemical;
- the concentration of the chemical used for the test in ppm by volume of air extracted.



CAUTION

The retention capacities given in this guide only apply to Neutrodine® filtration technology, manufactured and marketed by **erlab®.**

Occupational Exposure Limits (OEL) or Threshold Limit Values (TLV) are specific to each chemical and under no circumstances may be applied to chemical agents when used in a combination.

Moreover, the values given in this guide may alter in accordance with the latest findings regarding the chemicals included in it:

- OEL or TLV values may be reviewed and corrected by government bodies responsible for establishing them;
-Regulations regarding these chemicals (classification, storage, etc.) are updated in accordance with research and health monitoring authorities;
- Improvement in the performances of Neutrodine filtration technology manufactured by erlab® dfs sas has a direct effect on retention capacities given in this guide.

The **LP - Pay Back Survey** has been designed to generate data to accurately forecast the life-cycle of the filtration media.
Based on this calculated life-cycle, erlab® forecast the savings of using Neutrodine® Technology versus the energy cost associated with the classic approach of ducting to atmosphere.

LIST OF CHEMICALS NOT RECOMMENDED*

Gaseous chemicals in normal temperature and pressure conditions with a very low boiling point (25°C, 1 Atmosphere).

Examples:

- Hydrogen (H2),
- Helium and noble gases,
- Methane,
- Ethane,
- Ethylene oxide,
- Carbon monoxide,
- Carbon dioxide,
- Nitrogen monoxide,
- Propylene,
- Propyne,
- Acetylene

Organophosphoric compounds :
Because of their very high toxicity (compounds that can be used as Chemical weapons).

Mercury :
In spite of the fact that this product is very well retained by Neutrodine®, it remains extremely toxic (TLV = 0,05 ppm) and very hard to detect.

Hydrogene Cyanide :
Immediately lethal

*Non exhaustive list

DEFINITIONS OF THE COLUMN HEADINGS

Chemical name:
Standard name or brand name of the chemical. For chemical names followed by a ®, the brand names have been registered by their owners.

Formula:
Empirical chemical formula.

C.A.S Number:
Chemical Abstract Number. Unique registration number of the chemical given by the American Chemical Society (ACS).

TLV / OEL

PEL-TWA (OSHA):
Permissible Exposure Level – Time Weighed Average.
American average exposure limit established by the Occupational safety and health administration (OSHA) and expressed in ppm (parts per million). Time-weighted value over 8 hours and 38 or 40 hours per week for 40 working years. These thresholds are most often established with regard to the systemic effects.

PEL-STEL (OSHA):
Permissible Exposure Level – Short term
Exposure Limit. American short term exposure limit established by the Occupational safety and health administration (OSHA) and expressed in ppm (parts per million). 15-minute time weighted value. These threshold values are most often established with regard to systemic effects.

The Long List

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
1, 4-Dioxane	C4H8O2	123-91-1	100 ppm	
1,1,1-Trichloroethane	C2H3Cl3	71-55-6	350 ppm	
1,1,2,2-Tetrabromoethane	C2H2Br4	79-27-6	1 ppm	
1,1,2,2-Tetrachloroethane	C2H2Cl4	79-34-5	5 ppm	
1,1,2,2-Tetrachloroethane	C2H2Cl4	79-34-5	5 ppm	
1,1'-Biphenyl-4,4'-diamine	C8H16N2	92-87-5		
1,1-Dichloroethane	C2H4Cl2	75-34-3	100 ppm	
1,2-Dibromoethane	C2H4Br2	106-93-4	20 ppm	30 ppm
1,2-Dichlorobenzene	C6H4Cl2	95-50-1		50 ppm
1,2-Dichloroethane	C2H4Cl2	107-06-2	50 ppm	100 ppm
1,2-Dichloroethylene	C2H2Cl2	540-59-0	200 ppm	
1,2-Epoxy-3-isopropoxypropane	C6H12O2	4016-14-2	50 ppm	
1,2-Ethanediol	C2H6O2	107-21-1		
1,3-Butadiene	C4H6	106-99-0	1 ppm	15 ppm
1,3-Cyclopentadiene	C5H6	542-92-7	75 ppm	
1,3-Dichloropropene	C3H4Cl2	542-75-6		
1,3-Dichloropropylene	C3H4Cl2	542-75-6		
1,3-Dioxolane	C3H6O2	646-06-0		
1,3-Divinylbenzene	C10H10	1321-74-0		
1-Aminobutane	C4H9NH2	109-73-9		
1-Aminopropane	C3H9NO	107-10-8		
1-Butanethiol	C4H10S	109-79-5	10 ppm	
1-Butanethiol	C4H10S	109-79-5	10 ppm	
1-Butanol	C4H10O	71-36-3	100 ppm	
1-Chloro butane	C4H9Cl	109-69-3		
1-Chloro-2,3-epoxypropane	C3H5ClO	106-89-8	5 ppm	
1-Chloro-2,3-epoxypropane	C3H5ClO	106-89-8	5 ppm	
1-Mercaptobutane	C4H10S	109-79-5	10 ppm	
1-Mercaptobutane	C4H10S	109-79-5	10 ppm	
1-Mercaptobutane	C4H10S	109-79-5	10 ppm	
1-Methyl-2-pyrrolidinone	C5H9NO	872-50-4		
1-Propanethiol	C3H8S	107-03-9		
1-Propanol	C3H8O	71-23-8	200 ppm	
2, 2'-Dichlorodiethyl ether	C4H8OCl2	111-44-4		15 ppm
2, 4-Dimethyl pentane	C7H16	108-08-7		
2,4-Dimethyl-3-pentanone	C7H14O	565-80-0		
2,6-Dimethyl-4-heptanone	C9H18O	108-83-8	50 ppm	
2-Amino 1-propanol	C3H9NO	35320-23-1		
2-Amino butane	C4H9NH2	13952-84-6		
2-Amino pyridine	C5H6N2	504-29-0	0,5 ppm	
2-Aminoethanol	C2H7NO	141-43-5	3 ppm	
2-Aminopropane	C3H9N	75-31-0	5 ppm	
2-Butanol	C4H10O	78-92-2	150 ppm	
2-Butanone	C4H8O	78-93-3	200 ppm	
2-Butenal	C4H6O	4170-30-3	2 ppm	

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
2-Butoxyethanol	C6H14O2	111-76-2	50 ppm	
2-Chloroacetaldehyde	C2H3OCl	107-20-0		1 ppm
2-Chloroethanal	C2H3OCl	107-20-0		1 ppm
2-Chloroethanol	C2H5OCl	107-07-3	5 ppm	
2-Chloroethyl alcohol	C2H5OCl	107-07-3	5 ppm	
2-Chloropropylene oxide	C3H5OCl	106-89-8	5 ppm	
2-Ethoxy acetate	C6H12O3	111-15-9	100 ppm	
2-Ethoxyethanol	C4H10O2	110-80-5	200 ppm	
2-Ethyl-1-hexanol	C8H18O	104-76-7		
2-Furylmethanol	C5H6O2	98-00-0	50 ppm	
2-Furylmethanol	C5H6O2	98-00-0	50 ppm	
2-Heptanone	C7H14O	110-43-0	100 ppm	
2-Hexanone	C6H12O	591-78-6	100 ppm	
2-Hydroxymethylfuran	C5H6O2	98-00-0	50 ppm	
2-Methyl-1,3-butadiene	C5H8	78-79-5		
2-Methyl-1-propanol	C4H10O	78-83-1	100 ppm	
2-Methylbutane	C5H12	78-78-4		
2-Methylpropyl acetate	C6H12O2	110-19-0	150 ppm	
2-Pentanone	C5H10O	107-87-9	200 ppm	
2-Pentanone	C5H10O	107-87-9	200 ppm	
2-Phenyl propane	C9H12	98-82-8	50 ppm	
2-Propanol	C3H8O	67-63-0	400 ppm	
2-Propanone	C3H6O	67-64-1	1000 ppm	
2-Propen-1-ol	C3H6O	107-18-6	2 ppm	
2-Propenal	C3H4O	107-02-8	0,1 ppm	
2-Propenamide	C3H5NO	79-06-1	0,3 mg/m3	
2-Propenenitrile	C3H3N	107-13-1	2 ppm	10 ppm
2-Propenoic acid	C3H4O2	79-10-7		
2-Propenol	C3H6O	107-18-6	2 ppm	
2-Propyl acetate	C5H10O2	108-21-4	250 ppm	
2-Propylamine	C3H9N	75-31-0	5 ppm	
2-Propyn-1-ol	C3H4O	107-19-7		
2-Propynyl alcohol	C3H4O	107-19-7		
3-Amino-1-propanol	C3H9NO	156-87-6		
3-Chloro-1-propene	C3H5Cl	107-05-1	1 ppm	
3-Cresol	C7H8O	108-39-4		
3-Hydroxytoluene	C7H8O	108-39-4		
3-Methoxy-3-methyl-1-butanol	C6H14O2	56539-66-3		
3-Methyl phenol	C7H8O	108-39-4		
3-Methyl-3-penten-2-one	C6H10O	565-62-8		
3-Octanone	C8H16O	106-68-3		
3-Pentanone	C5H10O	96-22-0		
4,4'-Bianiline	C8H16N2	92-87-5		
4,4'-Biphenyldiamine	C8H16N2	92-87-5		
4,4'-Diaminobiphenyl	C8H16N2	92-87-5		
4-Aminotoluene	C7H9N	106-49-0		
4-Cresol	C7H8O	106-44-5		
4-Hydroxytoluene	C7H8O	106-44-5		

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
4-Methyl 2-pentanone	C6H12O	108-10-1	100 ppm	
4-Methyl-2-pentanone	C6H12O	108-10-1	100 ppm	
4-Methylaniline	C7H9N	106-49-0		
4-tert-Butyl toluene	C11H16	98-51-1	10 ppm	
5-Methyl-3-Heptanone	C2H6O2	541-85-5	25 ppm	
Absolute alcohol	C2H6O	64-17-5	1000 ppm	
Acetaldehyde	C2H4O	75-07-0	200 ppm	
Acetic acid	C2H4O2	64-19-7	10 ppm	
Acetic anhydre	C4H6O3	108-24-7	5 ppm	
Acetic oxide	C4H6O3	108-24-7	5 ppm	
Acetone	C3H6O	67-64-1	1000 ppm	
Acetonitrile	C2H3N	75-05-8	40 ppm	
Acetylene	C2H2	74-86-2		
Acetylene dichloride	C2H2Cl2	540-59-0	200 ppm	
Acetylene tetrabromide	C2H2Br4	79-27-6	1 ppm	
Acetylsalicilic acid	C9H8O4	50-78-2		
a-Chlorotoluene	C7H7Cl	100-44-7	1 ppm	
Acroleic acid	C3H4O2	79-10-7		
Acrolein	C3H4O	107-02-8	0,1 ppm	
Acrylamide	C3H5NO	79-06-1	0,3 mg/m3	
Acrylic acid	C3H4O2	79-10-7		
Acrylic aldehyde	C3H4O	107-02-8	0,1 ppm	
Acrylonitrile	C3H3N	107-13-1	2 ppm	10 ppm
Alcohol	C2H6O	64-17-5	1000 ppm	
Allyl alcohol	C3H6O	107-18-6	2 ppm	
Allyl alcohol	C3H6O	107-18-6	2 ppm	
Allyl aldehyde	C3H4O	107-02-8	0,1 ppm	
Allyl chloride	C3H5Cl	107-05-1	1 ppm	
Allylene	C3H4	74-99-7	1000 ppm	
Allylglycidylether	C6H10O2	106-92-3		10 ppm
Alumina	Al2O3	1344-28-1		
Aluminium	Al	7429-90-5	15 total dust mg/m3	
Aluminum oxide	Al2O3	1344-28-1		
Aluminum trioxide	Al2O3	1344-28-1		
Amino-benzene	C6H5NH2	62-53-3	5 ppm	
Aminocyclohexane	C6H11NH2	108-91-8		
Aminoethane	C2H7N	75-04-7	10 ppm	
Aminomethane	CH5N	74-89-5	10 ppm	
Ammonia	NH3	7664-41-7	50 ppm	
Ammonium chloride	NH4Cl	12125-02-9		
Ammonium chloride (fumes)	NH4Cl	12125-02-9		
Ammonium hydroxyde sol	NH4OH	7664-41-7	50 ppm	
Amorphous silica	SiO2	7631-86-9	80/ % silica total dust mg/m3	
Amyl alcohol n	C5H12O	71-41-0		
Anhydrous hydrogen bromide	HBr	10035-10-6	3 ppm	
Anhydrous hydrogen bromide	HBr	10035-10-6	3 ppm	
Aniline	C6H5NH2	62-53-3	5 ppm	
Aqua fortis	HNO3	7697-37-2	2 ppm	

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
Aqua regia	HCL+HNO3			
Aqueous hydrogen bromide (i.e.	HBr	10035-10-6	3 ppm	
Aqueous hydrogen chloride (i.e.	HCl aq. sol.	7647-01-0		5 ppm
Arsenic (inorganic compounds, as As)	As	7440-38-2	0,01 mg/m3	
Asbestos	Hydrated mineral silicates	1332-21-4		
Aspirin	C9H8O4	50-78-2		
Atrazine	C8H14ClN5	1912-24-9		
Azide	NaN3	26628-22-8		
Azine	C5H5N	110-86-1	5 ppm	
Barium chloride	BaCl2.2H2O	10326-38-9		
Benzenamine	C6H5NH2	62-53-3	5 ppm	
Benzene	C6H6	71-43-2	1 ppm	5 ppm
Benzene chloride	C6H5Cl	108-90-7	75 ppm	
Benzene chloride	C6H5Cl	108-90-7	75 ppm	
Benzine 35 80	C8H16N2	92-87-5		
Benzyl alcohol	C6H5CH2OH	100-51-6		
Benzyl chloride	C7H7Cl	100-44-7	1 ppm	
Beryllium compounds (as Be)	Be	7440-41-7	0,002 mg/m3	0,005 mg/m3
BET	C21H20N3Br	1239-45-8		
beta-Aminoethyl alcohol	C2H7NO	141-43-5	3 ppm	
beta-Chloroprene	C4H4Cl	126-99-8	25 ppm	
beta-Methyl acrolein	C4H6O	4170-30-3	2 ppm	
beta-Methylpropyl ethanoate	C6H12O2	110-19-0	150 ppm	
Bicyclopentadiene	C10H12	77-73-6		
Biotite	K(Mg, Fe)3AlSi3O10(F, OH)2	12001-26-2	20 mppcf ppm	
Borax	Na2B4O7 • 10H2O	1303-96-4		
Boron oxide	B2O3	1303-86-2	15 total dust mg/m3	
Bromine	Br2	7726-95-6	0,1 ppm	
Bromochloromethane	CH2BrCl	74-97-5	200 ppm	
Bromoethane	C2H5Br	74-96-4	200 ppm	
Bromoethene	C2H3Br	593-60-2		
Bromoethylene	C2H3Br	593-60-2		
Bromoform	CHBr3	75-25-2	0,5 ppm	
Butanoic acid	C4H8O2	107-92-6		
Butyl acrylate	C7H12O2	141-32-2		
Butyl alcohol	C4H10O	71-36-3	100 ppm	
Butyl alcohol sec	C4H10O	78-92-2	150 ppm	
Butyl alcohol sec	C4H10O	78-92-2	150 ppm	
Butyl alcohol ter	C4H10O	75-65-0	100 ppm	
Butyl alcohol ter	CH2O2	75-12-7		
Butyl carbinol	C5H12O	71-41-0		
Butyl Cellosolve®	C6H14O2	111-76-2	50 ppm	
Butyl ether	C8H18O	142-96-1		
Butyl glycidyl ether	C7H14O2	2426-08-6	50 ppm	
Butyl glycol	C6H14O2	111-76-2	50 ppm	
Butyl lactate	C7H14O3	138-22-7		
Butyl metacrylate	C18H14O2	97-88-1		
Butyl vinyl ether	C6H12O	111-34-2		

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
Butyl vinyl ether	C6H12O	111-34-2		
Butyric acid	C4H8O2	107-92-6		
BVE	C6H12O	111-34-2		
Cadnium	Cd	7440-43-9	0,005 mg/m3	
Cadnium (dust and fumes)	Cd	7440-43-9	0,005 mg/m3	
Calcium carbonate	CaCO3	1317-65-3	15 total dust mg/m3	
Calcium hydroxide	Ca(OH)2	1305-62-0	15 inhalable aerosol mg/m3	
Calcium hydroxide	Ca(OH)2	1305-62-0	15 inhalable aerosol mg/m3	
Calcium oxide	CaO	1305-78-8	5 mg/m3	
Calcium sulfate	Ca(SO4). 2H20	7778-18-9	15 total dust mg/m3	
Carbon bromide	CBr4	558-13-4		
Carbon disulfide	CS2	75-15-0	20 ppm	30 ppm
Carbon tetrabromide	CBr4	558-13-4		
Carbon tetrachloride	CCl4	56-23-5	10 ppm	25 ppm
Caustic soda	NaOH	1310-73-2	2 mg/m3	
Cellosolve "Acetate"	C6H12O3	111-15-9	100 ppm	
Cellosolve®	C4H10O2	110-80-5	200 ppm	
Cellulose	(C6H10O5)n	9004-34-6	15 total dust mg/m3	
Chlorine	Cl2	7782-50-5		1 ppm
Chlorine dioxide	ClO2	10049-04-4	0,1 ppm	
Chlorine oxide	ClO2	10049-04-4	0,1 ppm	
Chloro-1-nitropropane 1	C3H6NO2Cl	600-25-9	20 ppm	
Chlorobromomethane	CH2BrCl	74-97-5	200 ppm	
Chlorobutadiene	C4H4Cl	126-99-8	25 ppm	
Chloroethane	C2H5Cl	75-00-3	1000 ppm	
Chloroethene	C2H3Cl	75-01-4	1 ppm	5 ppm
Chloroethylene	C2H3Cl	75-01-4	1 ppm	5 ppm
Chloroform	CHCl3	67-66-3		50 ppm
Chloromethane	CH3Cl	74-87-3	100 ppm	200 ppm
Chloroprene	C4H4Cl	126-99-8	25 ppm	
Chlorothene	C2H3Cl3	71-55-6	350 ppm	
Chromic acid	CrO3	1333-82-0		
Chromic oxide	CrO3	1333-82-0		
Chromium(VI) oxide (1:3)	CrO3	1333-82-0		
Cinamene	C8H8	100-42-5	100 ppm	200 ppm
Clay	Al2Si2O5(OH)4	1332-58-7	15 total dust mg/m3	
Copper (dusts and mists, as Cu)	Cu	7440-50-8	1 mg/m3	
Copper oxide (II)	CuO	1317-38-0		
Cresol all isomers	C7H8O	1319-77-3	5 ppm	
Crotonaldehyde	C4H6O	4170-30-3	2 ppm	
Cumene	C9H12	98-82-8	50 ppm	
Cumol	C9H12	98-82-8	50 ppm	
Cyanomethane	C2H3N	75-05-8	40 ppm	
Cyclohexane	C6H12	110-82-7	300 ppm	
Cyclohexanol	C6H12O	108-93-0	50 ppm	
Cyclohexanone	C6H10O	108-94-1	50 ppm	
Cyclohexene	C6H10	110-83-8	300 ppm	
Cyclohexyl alcohol	C6H12O	108-93-0	50 ppm	

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
Cyclohexyl ketone	C6H10O	108-94-1	50 ppm	
Cyclohexylamine	C6H11NH2	108-91-8		
Cyclopentane	C5H10	287-92-3		
DEA	C4H11NO2	111-42-2		
Decane	C10H22	124-18-5		
Diacetone	C6H12O2	123-42-2	50 ppm	
Diacetone alcohol	C6H12O2	123-42-2	50 ppm	
Diamine	N2H4	302-01-2	1 ppm	
Dibutyl ether	C8H18O	142-96-1		
Dichloromethane	CH2Cl2	75-09-2	25 ppm	125 ppm
Dichloropropane 1, 2	C3H6Cl2	78-87-5	75 ppm	
Dicyclopentadiene	C10H12	77-73-6		
Diethamine	C4H11N	109-89-7	25 ppm	
Diethanolamine	C4H11NO2	111-42-2		
Diethyl ether	C4H10O	60-29-7	400 ppm	
Diethyl ketone	C5H10O	96-22-0		
Diethyl oxide	C4H10O	60-29-7	400 ppm	
Diethylamine	C4H11N	109-89-7	25 ppm	
Diethylaminoethanol-2	C6H15NO	100-37-8	10 ppm	
Diethylene dioxide	C4H8O2	123-91-1	100 ppm	
Diethylene glycol monobutyl ether	C8H18O3	112-34-5		
Diethylene oxide	C4H8O	109-99-9	200 ppm	
Diethylene triamine	C4H13N3	111-40-0		
Diisopropyl ether	C6H14O	108-20-3	500 ppm	
Diisopropyl ketone	C9H18O	108-83-8	50 ppm	
Diisopropyl ketone	C7H14O	565-80-0		
Diisopropyl oxide	C6H14O	108-20-3	500 ppm	
Diisopropylamine	C6H15N	108-18-9	5 ppm	
Dimethoxymethane	C3H8O2	109-87-5	1000 ppm	
Dimethyl amine	C2H7N	124-40-3	10 ppm	
Dimethyl benzene (and isomers)	C8H10	95-47-6	100 ppm	
Dimethyl carbinol	C3H8O	67-63-0	400 ppm	
Dimethyl ether	C2H6O	115-10-6		
Dimethyl ketone	C3H6O	67-64-1	1000 ppm	
Dimethyl sulfoxide	C2H6SO	67-68-5		
Dimethylacetone	C5H10O	96-22-0		
Dimethylformamide	C3H7NO	68-12-2	10 ppm	
Dimethylmethane	C3H8	74-98-6	1000 ppm	
Diphenyl oxide	C12H10O	101-84-8	1 ppm	
Dipropyl ketone	C7H14O	123-19-3		
Dipropylmethane	C7H16	142-82-5	500 ppm	
Diuron	C9H10Cl2N2O	330-54-1		
Divinyl	C4H6	106-99-0	1 ppm	15 ppm
DMA	C2H7N	124-40-3	10 ppm	
DMF	C3H7NO	68-12-2	10 ppm	
DMSO	C2H6SO	67-68-5		
EAK	C8H16O	106-68-3		
Epoxy-2,3-propanol-1	C3H6O2	556-52-5	50 ppm	

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
Erythrene	C4H6	106-99-0	1 ppm	15 ppm
Essence of mirbane	C6H5NO2	98-95-3	1 ppm	
Ethanal	CH2O	50-00-0	0,75 ppm	2 ppm
Ethanal	C2H4O	75-07-0	200 ppm	
Ethanedioic acid	C2H2O4	144-62-7	1 mg/m3	
Ethanoic acid	C2H4O2	64-19-7	10 ppm	
Ethanol	C2H6O	64-17-5	1000 ppm	
Ethanolamine	C2H7NO	141-43-5	3 ppm	
Ethene	C2H2	74-86-2		
Ether	C4H10O	60-29-7	400 ppm	
Ethidium bromide	C21H20N3Br	1239-45-8		
Ethyl acetate	C4H8O2	141-78-6	400 ppm	
Ethyl acrylate	C5H8O2	140-88-5	25 ppm	
Ethyl alcohol	C2H6O	64-17-5	1000 ppm	
ethyl aldehyde	C2H4O	75-07-0	200 ppm	
Ethyl benzene	C8H10	100-41-4	100 ppm	
Ethyl bromide	C2H5Br	74-96-4	200 ppm	
Ethyl chloride	C2H5Cl	75-00-3	1000 ppm	
ethyl cyanoacrylate	C6H7NO2			
Ethyl ethanoate	C4H8O2	141-78-6	400 ppm	
Ethyl ether	C4H10O	60-29-7	400 ppm	
Ethyl formate	C3H6O2	109-94-4	100 ppm	
Ethyl ketone	C5H10O	96-22-0		
Ethyl methyl ketone	C4H8O	78-93-3	200 ppm	
Ethyl nitrile	C2H3N	75-05-8	40 ppm	
Ethyl oxide	C4H10O	60-29-7	400 ppm	
Ethylamine	C2H7N	75-04-7	10 ppm	
Ethylamyl ketone	C8H16O	106-68-3		
Ethylen chlorhydrin	C2H5OCl	107-07-3	5 ppm	
Ethylene alcohol	C2H6O2	107-21-1		
Ethylene chloride	C2H4Cl2	107-06-2	50 ppm	100 ppm
Ethylene chlorohydrin	C2H5OCl	107-07-3	5 ppm	
Ethylene diamine (solution)	C2H8N2	107-15-3	10 ppm	
Ethylene dibromide	C2H4Br2	106-93-4	20 ppm	30 ppm
Ethylene dibromide	C2H4Br2	106-93-4	20 ppm	30 ppm
Ethylene dichloride	C2H4Cl2	107-06-2	50 ppm	100 ppm
Ethylene glycol	C2H6O2	107-21-1		
Ethylene glycol mono ethyl ether	C4H10O2	110-80-5	200 ppm	
Ethylene glycol mono ethyl ether acetate	C6H12O3	111-15-9	100 ppm	
Ethylene trichloride	C2HCl3	79-01-6	100 ppm	200 ppm
Ethylenediamine	C2H8N2	107-15-3	10 ppm	
Ethylidene chloride	C2H4Cl2	75-34-3	100 ppm	
Ethyne	C2H2	74-86-2		
Ferric oxide	Fe2O3	1309-37-1	10 mg/m3	
Forene	C3H2F5ClO			
Formaldehyde	CH2O	50-00-0	0,75 ppm	2 ppm
Formaldehyde solution	CH2O	50-00-0	0,75 ppm	2 ppm
Formalin (as formaldehyde)	CH2O	50-00-0	0,75 ppm	2 ppm

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
Formic acid	CH2O2	64-18-6	5 ppm	
Formic aldehyde	CH2O	50-00-0	0,75 ppm	2 ppm
Formonitrile	HCN	74-90-8	10 ppm	
Furfuryl alcohol	C5H6O2	98-00-0	50 ppm	
Gasoline 60		8006-61-9		
Glacial acetic acid (pure compound)	C2H4O2	64-19-7	10 ppm	
Glucose	C6H12O6	5996-10-1		
Glutaraldehyde	C5H8O2	111-30-8		
Glycerol	C3H8O3	56-81-5	15 inhalable dust mg/m3	
Glycide	C3H6O2	556-52-5	50 ppm	
Glycidol	C3H6O2	556-52-5	50 ppm	
Glycol	C2H6O2	107-21-1		
Graphite (synthetic)	C	7440-44-0		
Halothane	C2HBrClF3	151-67-7		
Heptan-4-one	C7H14O	123-19-3		
Heptane	C7H16	142-82-5	500 ppm	
Hexane	C6H14	110-54-3	500 ppm	
Hexone	C6H12O	108-10-1	100 ppm	
Hydrazine	N2H4	302-01-2	1 ppm	
Hydrobromic acid	HBr	10035-10-6	3 ppm	
Hydrochloric acid	HCl aq. sol.	7647-01-0		5 ppm
Hydrocyanic acid	HCN	74-90-8	10 ppm	
Hydrofluoric acid	HF aq. sol.	7664-39-3	3 ppm	
Hydrogen chloride	HCl	7647-01-0		5 ppm
Hydrogen cyanide	HCN	74-90-8	10 ppm	
Hydrogen fluoride	HF	7664-39-3	3 ppm	
Hydrogen nitrate	HNO3	7697-37-2	2 ppm	
Hydrogen peroxide	H2O2	7722-84-1	1 ppm	
Hydrogen peroxide	H2O2	7722-84-1	1 ppm	
Hydrogen sulfate	H2SO4	7664-93-9	1 mg/m3	
Hydrogen sulfide	H2S	7783-06-4	4 ppm	20 ppm
Hydroquinone	C6H6O2	123-31-9	2 mg/m3	
Hydroxybenzene	C6H6O	108-95-2	5 ppm	
Hydroxycellulose	(C6H10O5)n	9004-34-6	15 total dust mg/m3	
Hydroxycyclohexane	C6H12O	108-93-0	50 ppm	
Hypochlorous acid	HClO			
Iodine	I2	7553-56-2		0,1 ppm
Iodoform	CHI3	75-47-8		
IPA	C3H8O	67-63-0	400 ppm	
Iron oxide dust and fume (as Fe)	Fe2O3	1309-37-1	10 mg/m3	
Isoamyl acetate	C7H14O2	123-92-2	100 ppm	
Isoamyl alcohol	C5H12O	71-41-0		
Isoamyl alcohol (primary)	C5H12O	123-51-3	100 ppm	
Isobutane	C4H10	75-28-5		
Isobutanol	C4H10O	78-83-1	100 ppm	
Isobutenyl methyl ketone	C6H10O	141-79-7	25 ppm	
Isobutyl acetate	C6H12O2	110-19-0	150 ppm	
Isobutyl alcohol	C4H10O	78-83-1	100 ppm	

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
Isobutyl carbinol	C5H12O	123-51-3	100 ppm	
Isobutyl methyl carbinol	C6H14O	108-11-2	25 ppm	
Isobutyrone	C7H14O	565-80-0		
Isoflurane	C3H2F5ClO	26675-46-7		
iso-Nitropropane	C3H7NO2	79-46-9	25 ppm	
Isooctane	C8H18	540-84-1		
Isooctanol	C8H18O	104-76-7		
Isooctylalcohol	C8H18O	104-76-7		
Isopentane	C5H12	78-78-4		
Isopentyl acetate	C7H14O2	123-92-2	100 ppm	
Isophorone	C9H14O	78-59-1	25 ppm	
Isoprene	C5H8	78-79-5		
Isopropane	C3H7NO2	79-46-9	25 ppm	
Isopropanol	C3H8O	67-63-0	400 ppm	
Isopropyl acetate	C5H10O2	108-21-4	250 ppm	
Isopropyl alcohol	C3H8O	67-63-0	400 ppm	
Isopropyl benzene	C9H12	98-82-8	50 ppm	
Isopropyl benzene	C9H12	98-82-8	50 ppm	
Isopropyl ether	C6H14O	108-20-3	500 ppm	
Isopropyl glycidyl ether	C6H12O2	4016-14-2	50 ppm	
Isopropylamine	C3H9N	75-31-0	5 ppm	
Isopropylcarbinol	C4H10O	78-83-1	100 ppm	
Isopropylideneacetone	C6H10O	141-79-7	25 ppm	
Korax	C3H6NO2Cl	600-25-9	20 ppm	
Limonene	C10H16	5989-54-8		
Lithium hydride	LiH	7580-67-8	0,025 mg/m3	
Magnesia fume	MgO	1309-48-4	15 total dust mg/m3	
Magnesite	MgCO3	546-93-0	15 total dust mg/m3	
Magnesium oxide	MgO	1309-48-4	15 total dust mg/m3	
Manganese compounds (as Mn)	Mn	7439-96-5		5 mg/m3
Manganese oxide (IV)	MnO2	1317-35-7		
m-Cresol	C7H8O	108-39-4		
MEK	C4H8O	78-93-3	200 ppm	
MEK	C4H8O	78-93-3	200 ppm	
Mercapto-2 Ethanol	C2H6SO	60-24-2		
Mesityl oxide	C6H10O	141-79-7	25 ppm	
Mesitylene	C9H12	108-67-8		
Methacrylic acid	C4H6O2	79-41-4		
Methanal	CH2O	50-00-0	0,75 ppm	2 ppm
Methane tetrabromide	CBr4	558-13-4		
Methanoic acid	CH2O2	64-18-6	5 ppm	
Methanol	CH4O	67-56-1	200 ppm	
Methoxycarbonylethylene	C4H5O2	96-33-3	10 ppm	
Methyl acetate	C3H6O2	79-20-9	200 ppm	
Methyl acetylene	C3H4	74-99-7	1000 ppm	
Methyl Acetylene Propadiene Mix.			1000 ppm	
Methyl alcohol	CH4O	67-56-1	200 ppm	
Methyl benzene	C7H8	108-88-3	200 ppm	300 ppm

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
Methyl butyl ketone	C6H12O	591-78-6	100 ppm	
Methyl celllosolve	C3H8O2	109-86-4	25 ppm	
Methyl chloride	CH3Cl	74-87-3	100 ppm	200 ppm
Methyl chloroform	C2H3Cl3	71-55-6	350 ppm	
Methyl cyanide	C2H3N	75-05-8	40 ppm	
Methyl cyanoacrylate	C5H5NO2	137-05-3		
Methyl cyclohexane	C7H14	108-87-2	500 ppm	
Methyl cyclohexanol	C7H14O	25639-42-3	100 ppm	
Methyl cyclohexanone	C7H12O	1331-22-2	100 ppm	
Methyl ether	C2H6O	115-10-6		
Methyl ethyl ketone	C4H8O	78-93-3	200 ppm	
Methyl formate	C2H4O2	107-31-3	100 ppm	
Methyl isobutenyl ketone	C6H10O	141-79-7	25 ppm	
Methyl isobutyl ketone	C6H12O	108-10-1	100 ppm	
Methyl metacrylate	C5H8O2	80-62-6	100 ppm	
Methyl phenol all isomers	C7H8O	1319-77-3	5 ppm	
Methyl propenoate	C4H5O2	96-33-3	10 ppm	
Methyl propyl ketone	C5H10O	107-87-9	200 ppm	
Methyl styrene	C9H10	25013-15-4	100 ppm	
Methyl-2-propane	C4H10	75-28-5		
Methyl-3-butanol-1	C5H12O	123-51-3	100 ppm	
Methyl-3-butanol-1	C5H12O	71-41-0		
Methylacrylate	C4H5O2	96-33-3	10 ppm	
Methylal	C3H8O2	109-87-5	1000 ppm	
Methylamine	CH5N	74-89-5	10 ppm	
methylamyl alcohol	C6H14O	108-11-2	25 ppm	
Methylene chloride	CH2Cl2	75-09-2	25 ppm	125 ppm
Methylene chlorobromide	CH2BrCl	74-97-5	200 ppm	
Methylene dichloride	CH2Cl2	75-09-2	25 ppm	125 ppm
Methylene oxide	CH2O	50-00-0	0,75 ppm	2 ppm
Methylethyl carbinol	C4H10O	78-92-2	150 ppm	
Methyl-n-amyl ketone	C7H14O	110-43-0	100 ppm	
MIBC	C6H14O	108-11-2	25 ppm	
MIBK	C6H12O	108-10-1	100 ppm	
Mica	K(Mg, Fe)3AlSi3O10(F, OH)2	12001-26-2	20 mppcf ppm	
Mirbane oil	C6H5NO2	98-95-3	1 ppm	
Muriatic acid	HCl aq. sol.	7647-01-0		5 ppm
Muscovite	K(Mg, Fe)3AlSi3O10(F, OH)2	12001-26-2	20 mppcf ppm	
N,N-Dimethylethylamine	C4H11N	598-56-1		
n-Amyl acetate	C7H14O2	628-63-7	100 ppm	
n-Amyl acetate	C7H14O2	123-92-2	100 ppm	
Naphta 30/60	85% Nonane/15% trimethyl-benzene	8052-41-3	500 ppm	
Naphthalene	C10H8	91-20-3	10 ppm	
Naphthalin	C10H8	91-20-3	10 ppm	
n-Butane	C4H10	106-97-8		
n-Butanethiol	C4H10S	109-79-5	10 ppm	
n-Butanol	C4H10O	71-36-3	100 ppm	
n-Butyl acetate	C6H12O2	123-86-4	150 ppm	

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
n-Butyl amine	C4H9NH2	109-73-9		
n-Butyl chloride	C4H9Cl	109-69-3		
N-Ethylethanamine	C4H11N	109-89-7	25 ppm	
n-Hexane	C6H14	110-54-3	500 ppm	
Nickel metal and other compounds (as Ni)	Ni	7440-02-0	1 mg/m3	
Ninhydrine (powder)	C9H4O3 .H2O	485-47-2		
Nitric acid	HNO3	7697-37-2	2 ppm	
Nitro benzene	C6H5NO2	98-95-3	1 ppm	
Nitroethane	C2H5NO2	79-24-3	100 ppm	
Nitromethane	CH3NO2	75-52-5	100 ppm	
n-Octane	C8H18	111-65-9	500 ppm	
Nonane all isomers	C9H20	111-84-2		
n-Pentane	C5H12	109-66-0	1000 ppm	
o-Chlorotoluene	C7H7Cl	106-43-4		
Orthophosphoric acid	H3PO4	7664-38-2	1 mg/m3	
o-Toluidine	C7H9N	119-93-7		
Oxalic acid	C2H2O4	144-62-7	1 mg/m3	
o-Xylene	C8H10	95-47-6	100 ppm	
Paraquat	C12H14N2	4685-14-7	0,5 mg/m3	
Parathion	C10H14NO5PS	56-38-2	0,1 mg/m3	
p-Cresol	C7H8O	106-44-5		
p-Dichlorobenzene	C6H4Cl2	106-46-7	75 ppm	
Pentachloroethane	C2H5Cl5	76-01-7		
Pentanol 1	C5H12O	71-41-0		
Pentyl acetate	C7H14O2	628-63-7	100 ppm	
Perchloric acid	HClO4	7601-90-3		
Perchloroethylene	C2Cl4	127-18-4	100 ppm	200 ppm
Petroleum ether 30/60		8032-32-4		
Phenol	C6H6O	108-95-2	5 ppm	
Phenyl amine	C6H5NH2	62-53-3	5 ppm	
Phenyl chloride	C6H5Cl	108-90-7	75 ppm	
Phenyl ether	C12H10O	101-84-8	1 ppm	
Phenyl glycidyl ether	C9H10O2	122-60-1	10 ppm	
Phenyl hydroxide	C6H6O	108-95-2	5 ppm	
Phenylethane	C8H10	100-41-4	100 ppm	
Phenylethylene	C8H8	100-42-5	100 ppm	200 ppm
Phenylmethane	C7H8	108-88-3	200 ppm	300 ppm
Phosphoric acid	H3PO4	7664-38-2	1 mg/m3	
Platinum	Pt	7440-06-4		
Potassium hydroxide	KOH	1310-58-3		
Potassium hydroxide	KOH	1310-58-3		
Propanal	C3H6O	123-38-6		
Propane	C3H8	74-98-6	1000 ppm	
Propanol-1	C3H8O	71-23-8	200 ppm	
Propanolamine	C3H9NO	107-10-8		
Propargyl alcohol	C3H4O	107-19-7		
Propenenitrile	C3H3N	107-13-1	2 ppm	10 ppm
Propyl acetate	C5H10O2	109-60-4	200 ppm	

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
Propyl alcohol	C3H8O	71-23-8	200 ppm	
Propyl mercaptan	C3H8S	107-03-9		
Propylacetate	C5H10O2	109-60-4	200 ppm	
Propylamine	C3H9N	107-10-8		
Propylbenzene	C9H12	108-67-8		
Propylene aldehyde	C4H6O	4170-30-3	2 ppm	
Propylene chloride	C3H6Cl2	78-87-5	75 ppm	
Propylene dichloride	C3H6Cl2	78-87-5	75 ppm	
Propylene oxide	C3H6O	75-56-9	100 ppm	
Propyne	C3H4	74-99-7	1000 ppm	
Prussic acid	HCN	74-90-8	10 ppm	
p-Toluidine	C7H9N	106-49-0		
Pyridine	C5H5N	110-86-1	5 ppm	
Pyrocellulose	(C6H10O5)n	9004-34-6	15 total dust mg/m3	
Quartz	SiO2	14808-60-7	30/(%silica+2) total dust mg/m3	
Red iron oxide	Fe2O3	1309-37-1	10 mg/m3	
Saccarose	C12H22O11	57-50-1	15 inhalable aerosol mg/m3	
SBA	C4H10O	78-92-2	150 ppm	
sec-Amyl acetate	C7H14O2	123-92-2	100 ppm	
sec-Butyl amine	C4H9NH2	13952-84-6		
sec-Butyl chloride	C4H9Cl	507-20-0		
Silica gel	SiO2	7631-86-9	80/ % silica total dust mg/m3	
Silicon	Si	7440-21-3	15 total dust mg/m3	
Silver	Ag	7440-22-4	0,01 mg/m3	
Soda	Na0H	1310-73-2	2 mg/m3	
Sodium azide	NaN3	26628-22-8		
Sodium bisulphite	HNaO3S	7631-90-5		
Sodium hydrate	Na0H	1310-73-2	2 mg/m3	
Stoddard solvent	85% Nonane/15% trimethyl-benzene	8052-41-3	500 ppm	
Strychnine	C21H22N2O2	57-24-9	0,15 mg/m3	
Styrene	C8H8	100-42-5	100 ppm	200 ppm
Sulfur dioxide	SO2	7446-09-5	5 ppm	
Sulfuric acid	H2SO4	7664-93-9	1 mg/m3	
ter-Butanol	C4H10O	75-65-0	100 ppm	
ter-Butyl acetate	C6H12O2	540-88-5	200 ppm	
ter-Butyl alcohol	C4H10O	75-65-0	100 ppm	
tert-Butyl alcohol	C4H10O	75-65-0	100 ppm	
Tetrabromomethane	CBr4	558-13-4		
Tetrachloroethylene	C2Cl4	127-18-4	100 ppm	200 ppm
Tetrachloromethane	CCl4	56-23-5	10 ppm	25 ppm
Tetrahydrofuran	C4H8O	109-99-9	200 ppm	
TFA	C2HF3O2	76-05-1		
THF	C4H8O	109-99-9	200 ppm	
Tin (inorganic compounds, as Sn)	Sn	7440-31-5		
Tin(IV) oxide (as Sn)	O2Sn	18282-10-5		
Titanium dioxide	TiO2	13463-67-7	15 total dust mg/m3	
TMA	C3H9N	75-50-3		
Toluene	C7H8	108-88-3	200 ppm	300 ppm

Chemical Name	Formula	C.A.S Number	PEL-TWA (OSHA)	PEL-STEL (OSHA)
Toluol	C7H8	108-88-3	200 ppm	300 ppm
Tribromomethane	CHBr3	75-25-2	0,5 ppm	
Trichloroacetic acid	C2HCl3O2	76-03-9		
Trichloroethane-1,1,2	C2H3Cl3	79-00-5	10 ppm	
Trichloroethanoic acid	C2HCl3O2	76-03-9		
Trichloroethanoic acid	C2HCl3O2	76-03-9		
Trichloroethene	C2HCl3	79-01-6	100 ppm	200 ppm
Trichloroethylene	C2HCl3	79-01-6	100 ppm	200 ppm
Trichloromethane	CHCl3	67-66-3		50 ppm
Triethylamine	C6H15N	121-44-8	25 ppm	
Trifluoroacetic acid	C2HF3O2	76-05-1		
Trimethyl methane	C4H10	75-28-5		
Trimethyl pentane-2,2,4	C8H18	540-84-1		
Trimethylamine	C3H9N	75-50-3		
Trimethylbenzene	C9H12	108-67-8		
Tungsten	W	7440-33-7		
Turpentine oil	C10H16	8006-64-2	100 ppm	
VC	C2H3Cl	75-01-4	1 ppm	5 ppm
Vinyl acetate	C4H6O2	108-05-4		
Vinyl bromide	C2H3Br	593-60-2		
Vinyl carbinol	C3H6O	107-18-6	2 ppm	
Vinyl chloride	C2H3Cl	75-01-4	1 ppm	5 ppm
Vinyl cyanide	C3H3N	107-13-1	2 ppm	10 ppm
Vinyl ethylene	C4H6	106-99-0	1 ppm	15 ppm
Vinyl toluene	C9H10	25013-15-4	100 ppm	
Vinyl trichloride	C2H3Cl3	79-00-5	10 ppm	
Vinylbenzene	C8H8	100-42-5	100 ppm	200 ppm
White spirit	85% Nonane/15% trimethyl-benzene	8052-41-3	500 ppm	
Xylene (isomers)	C8H10	1330-20-7	100 ppm	
Xylol	C9H10	103-38-3	50 ppm	
Zinc oxide	ZnO	1314-13-2	15 mg/m3	

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