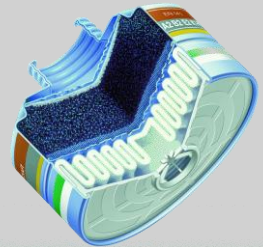


List of Industrial Gases & Toxic Substances



Substances	Formula	Filter Performance Type	Colour Mark	Remarks
A Acetaldehyde	CH ₃ CHO	AX	brown	87 AX
Acetic acid	CH ₃ COOH	E	yellow	also B or A
Acetone	CH ₃ COCH ₃	AX	brown	87 AX
Acetonecyanhydrin	CH ₃ C[OH][CN]CH ₃	A-[P3]	brown-[white]	¹⁾
Acetonitrile	CH ₃ CN	A	brown	in presence of hydrogen cyanide: B
Acidic gases	–	E	yellow	also B
Acids [fuming concentrated]	–	E-[P2]	yellow-[white]	¹⁾
Acrolein [2-Propenal]	CH ₂ CHCHO	AX	brown	87 AX
Acrylic acid-esters	CH ₂ CHCOOR	A	brown	¹⁾
Acrylonitrile	CH ₂ CHCN	A-[P3]	brown-[white]	in presence of hydrogen cyanide: B-P3
Alcohols	R · OH	A	brown	methyl alcohol: AX
Aldehydes	R · CHO	A or AX	brown	formaldehyde: filter B
Allylchloride				
[3-chloride-1-propen]	CH ₂ CHCH ₂ Cl	AX	brown	87 AX
2-Amino ethanol	CH ₂ OHCH ₂ NH ₂	A	brown	¹⁾
Ammonia	NH ₃	K	green	¹⁾
Aniline	C ₆ H ₅ NH ₂	A-[P3]	brown-[white]	¹⁾
Aqueous ammonia	NH ₃ H ₂ O	K	green	¹⁾
Arsenic trioxide	As ₂ O ₃	P3	white	in presence of arsine: 89 B/St [B2-P3]
Arsine	AsH ₃	B	grey	in presence of arsenides: 89 B/St [B2-P3]
B Benzene	C ₆ H ₆	A	brown	¹⁾
Benzyl bromide	C ₆ H ₅ CH ₂ Br	A-[P2]	brown-[white]	also B
Beryllium	Be	P3	white	¹⁾
Bromine	Br ₂	B-[P3]	grey-[white]	¹⁾
Bromoform	CHBr ₃	A	brown	¹⁾
Bromomethane	CH ₃ Br	AX	brown	87 AX
Butanone	CH ₃ COC ₂ H ₅	A	brown	¹⁾
Butyl acetate	CH ₃ COOC ₄ H ₉	A	brown	¹⁾
Butyl acrylate	CH ₂ CHCOOC ₄ H ₉	A	brown	¹⁾
Butyl alcohols [butanols]	C ₄ H ₉ OH	A	brown	¹⁾
C Carbon black	C	P2	white	¹⁾
Carbon dioxide	CO ₂	²⁾	–	self-contained BA
Carbon disulfide	CS ₂	B	grey	¹⁾
Carbon monoxide	CO	CO	black	CO filter canister, CO filter cartridge
Carbon oxysulfide	COS	B	grey	¹⁾
Carbon tetrachloride	CCl ₄	A	brown	¹⁾
Caustic soda	NaOH	P2	white	¹⁾
Chlorobromomethane	CH ₂ ClBr	AX	brown	87 AX
Chlorine	Cl ₂	B-[P3]	grey-[white]	¹⁾
Chlorine dioxide	ClO ₂	B	grey	¹⁾
Chloromethane	CH ₃ Cl	²⁾	–	self-contained BA
Chloroform	CHCl ₃	AX	brown	87 AX
Chloroprene	CH ₂ C[Cl]CHCH ₂	AX	brown	87 AX
Chlorosulfonic acid	ClSO ₃ H	B-[P2]	grey-[white]	also E-P2
Chromium oxide	Cr ₂ O ₃ , CrO ₃	P3	white	¹⁾
Cresols	–	A	brown	¹⁾
Cyanogen chloride	CICN	B	grey	89 B/St
Cyclohexane	C ₆ H ₁₂	A	brown	¹⁾
Cyclohexanol	C ₆ H ₁₁ OH	A	brown	¹⁾
Cyclohexanone	C ₆ H ₁₀ O	A	brown	¹⁾
D DD-products				
[Desmodur-Desmophen]	–	A-[P2]	brown-[white]	¹⁾
DDT dust	–	P3	white	also 89 B/St
Diacetonol alcohol	[CH ₃] ₂ C[OH]CH ₂ COCH ₃	A	brown	¹⁾
1,2-Dibromoethane	CH ₂ BrCH ₂ Br	A	brown	¹⁾
1,2-Dichloroethane	CH ₂ ClCH ₂ Cl	A	brown	¹⁾

¹⁾ All filters of the indicated performance type could be used, please see overview on page 3

²⁾ Use of self-contained respiratory protection necessary [compressed air breathing apparatus or airline breathing apparatus]

Substances	Formula	Filter Performance Type	Colour Mark	Remarks
1,2-Dichloroethylene	CHClCHCl	AX	brown	87 AX
Dichloromethane	CH ₂ Cl ₂	AX	brown	87 AX
1,2-Dichloropropane	C ₃ H ₆ Cl ₂	A	brown	¹⁾
Diesel fuel	–	A	brown	¹⁾
Dimethylformamide [DMF]	HCON [CH ₃] ₂	A	brown	¹⁾
1,4-Dioxane	C ₄ H ₈ O ₂	A	brown	¹⁾
Dust	–	P2, P3	white	¹⁾
E Epichlorhydrin	C ₃ H ₅ OCl	A–[P3]	brown–[white]	¹⁾
Esters	R-COOR	A or AX	brown	¹⁾
Ethanolamine	CH ₂ OHCH ₂ NH ₂	A	brown	¹⁾
Ethers	ROR	A or AX	brown	¹⁾
Ethyl acetate	CH ₃ COOC ₂ H ₅	A	brown	¹⁾
Ethyl alcohol [ethanol]	C ₂ H ₅ OH	A	brown	¹⁾
Ethyl benzene	C ₆ H ₅ CH ₂ CH ₃	A	brown	¹⁾
Ethylene dichloride	CH ₂ ClCH ₂ Cl	A	brown	¹⁾
Ethylidene dichloride	CH ₃ CHCl ₂	AX	brown	¹⁾
Ethylene oxide [T-gas]	C ₂ H ₄ O	AX	brown	87 AX
Ethyl formate	HCOOC ₂ H ₅	AX	brown	87 AX
F Formaldehyde [formalin]	HCHO	B–[P3]	grey–[white]	¹⁾
Formic acid	HCOOH	E	yellow	also B
Furfuryl alcohol	C ₅ H ₄ O ₂	A	brown	¹⁾
G Gasoline	–	A	brown	¹⁾
H Halogenated hydrocarbons	R-Hal	A or AX B–[P2] or B–[P3]	brown grey–[white] grey–[white]	no filter for chloromethane if they produce HCl/H ₂ O
Halogens	Hal ₂	B	grey	¹⁾
Hexachlorocyclohexane	C ₆ H ₆ Cl ₆	A–[P3]	brown–[white]	also 89 B/St
Hydrazine	N ₂ H ₄	K–[P3]	green–[white]	¹⁾
Hydrocarbons	R-H	A	brown	¹⁾
Hydrochlorid acid	HCl/H ₂ O	E–[P2]	yellow–[white]	also B–P2
Hydrofluoric acid [hydrogen fluoride]	HF/H ₂ O	E	yellow	also B
Hydrogen bromide	HBr	E–[P2]	yellow–[white]	also B
Hydrogen chloride	HCl	E–[P2]	yellow–[white]	also B
Hydrogen cyanide	HCN	B	grey	¹⁾
Hydrogen halogenides	HF, HCl, HBr, HI	E–[P2]	yellow–[white]	also B–P2
Hydrogen selenide	H ₂ Se	B–[P2]	grey–[white]	¹⁾
Hydrogen sulfide	H ₂ S	B	grey	¹⁾
I Insecticide [organic]	–	A–[P2]	brown–[white]	¹⁾
Iodine	I ₂	B–[P2]	grey–[white]	also A–P2
Iodine [radioactive]	I ₂	Reactor–[P3]	orange–[white]	¹⁾
Iodomethane	CH ₃ I	AX	brown	87 AX
Iodomethane [radioactive]	CH ₃ I	Reactor–[P3]	orange–[white]	¹⁾
Iron pentacarbonyl	Fe[CO] ₅	CO–[P3]	black–[white]	CO filter canister with particle filter P3
Isocyanates [organic]	R-NCO	B–[P2]	grey–[white]	in case of spray and propellent gas
Isopropyl alcohol	CH ₃ CH [OH] CH ₃	B A	grey brown	if vapours only are present ¹⁾
K Ketenes	R-CH ₂ =CO	²⁾	–	self-contained BA
Ketones	R-CO-R	A	brown	Acetone: AX
L Lead fumes	Pb	P2	white	¹⁾
M Maleic anhydride	C ₄ H ₂ O ₃	A–[P2]	brown–[white]	¹⁾
Mercaptans	R-SH	B	grey	¹⁾
Mercury compounds	–	Hg–[P3]	red–[white]	89 Hg/St
Mercury vapour	Hg	Hg–[P3]	red–[white]	89 Hg/St
Metal fumes	–	P2, P3	white	¹⁾
Methyl alcohol [methanol]	CH ₃ OH	AX	brown	87 AX
Methyl bromide	CH ₂ Br	AX	brown	87 AX

¹⁾ All filters of the indicated performance type could be used, please see overview on page 3

²⁾ Use of self-contained respiratory protection necessary [compressed air breathing apparatus or airline breathing app]

Substances	Formula	Filter Performance	Colour Mark	Remarks
Methyl chloride	CH ₃ Cl	2)	–	self-contained BA
Methyl chloroform	CH ₃ CCl ₃	A	brown	1)
Methylene chloride	CH ₂ Cl ₂	AX	brown	87 AX
Methyl ethyl ketone [MEK]	CH ₃ COC ₂ H ₅	A	brown	1)
Methyl isobutyl ketone [MIBK]	CH ₃ COC ₄ H ₉	A	brown	1)
N Nickel tetracarbonyl	Ni[CO] ₄	CO-[P3]	black-[white]	CO filter canister and particle filter P3
Nitric acid	HNO ₃ /H ₂ O	NO	blue	89 NO/St
Nitro compounds [organic]	R-NO ₂	A	brown	1)
Nitrogen oxides	NO, NO ₂ , N ₂ O ₅	NO	blue	89 NO/St
Nitrous fumes	NO, NO ₂ , N ₂ O ₅ , HNO ₂ , HNO ₃	NO	blue	89 NO/St
O Organic nitro compounds	R-NO ₂	A	brown	1)
Organic vapors, solvent	–	A, AX	brown	1)
Ozone	O ₃	CO NO	black blue	CO filter canister 89 NO/St
P Paint sprays, vapours	–	A-[P2]	brown-[white]	1)
Pentachloroethane	CHCl ₂ CCl ₃	A	brown	1)
Perchloroethylene	CCl ₂ CCl ₂	A	brown	1)
Pesticides	–	A-[P2]	brown-[white]	1)
Petrol	–	A	brown	1)
Phenols	–	A	brown	1)
Phenylhydrazine	C ₆ H ₅ NHNH ₂	A	brown	also K
Phosgene	COCl ₂	B	grey	1)
Phosphine	PH ₃	B	grey	1)
Phosphorus trichloride	PCl ₃	B-[P2]	grey-[white]	1)
Polyacrylates	–	A-[P2]	brown-[white]	1)
Potassium cyanide [dust]	KCN	B-[P3]	grey-[white]	1)
Propyl alcohol [propanol]	CH ₃ CH ₂ CH ₂ OH	A	brown	1)
Pyridine	C ₅ H ₅ N	A	brown	also K
Q Quartz	SiO ₂	P2	white	1)
S Sodium hydroxide	NaOH	P2	white	1)
Solvents	–	A	brown	1)
Stibine	SbH ₃	B-[P3]	grey-[white]	1)
Styrene	C ₆ H ₅ CHCH ₂	A	brown	1)
Sulfur compounds [burning]	[SO ₂]	E-[P2]	yellow-[white]	1)
Sulfur dioxide	SO ₂	E	yellow	1)
Sulfuric acid	H ₂ SO ₄	B-[P2]	grey-[white]	1)
Sulfur monochloride	S ₂ Cl ₂	B-[P2]	grey-[white]	1)
Sulfur trioxide	[SO ₃]	P2	white	1)
Sulfuryl chloride	SO ₂ Cl ₂	B	grey	1)
T 1,1,2,2-Tetrachloroethane	CHCl ₂ CHCl ₂	A	brown	1)
Tetrachloroethylene	CCl ₂ CCl ₂	A	brown	1)
Tetrachloromethane	CCl ₄	A	brown	1)
Tetrahydrofuran	C ₄ H ₈ O	A	brown	1)
T-gas [ethylene oxide]	[C ₂ H ₄ O]	AX	brown	87 AX
Toluene	C ₆ H ₅ ·CH ₃	A	brown	1)
Tribromomethane	CHBr ₃	A	brown	1)
Trichloroethane [TCA]	CH ₃ CCl ₃	A	brown	1)
Trichloroethylene [Tri]	C ₂ HCl ₃	A	brown	1)
Trichloromethane	CHCl ₃	AX	brown	87 AX
Turpentine	–	A	brown	1)
V Vãnáđíũm pẽntõxide dust, fumes	V ₂ O ₅	P2	white	1)
Vinyl acetate	CH ₂ CHCl	A	brown	1)
Vinyl chloride	CH ₂ CCl ₂	AX	brown	87 AX
Vinylidene chloride	CH ₃ C ₆ H ₄ CHCH ₂	AX	brown	87 AX
Vinyltoluene	CH ₃ C ₆ H ₄ CH ₃	A	brown	1)
X Xýlẽnẽs	ZnO	A	brown	1)
Z Zinc oxide	–	P2	white	1)
Zyklon [hydrogen cyanide with irritant]	–	B	grey	1)

¹⁾ All filters of the indicated performance type could be used, please see overview on page 3

²⁾ Use of self-contained respiratory protection necessary [compressed air breathing apparatus or airline breathing apparatus.