

CHEMICAL RESISTANCE:

1/ GENERAL INSTRUCTIONS:

The Chemical Resistance List is only intended as a guide. Changes in the composition of the medium or special working conditions could lead to deviations. If there is any doubt, it is recommended to test the behaviour of the material under the specific working conditions by means of a practical installation.

No guarantees can be given in respect of the information contained in this guide. However, the data will be revised from time to time in the light of subsequent research and experience.

2/ CLASSIFICATION:

resistant: **+**

Within the acceptable limits of pressure and temperature the material is unaffected or only insignificantly affected.

conditionally resistant: **○**

The medium can attack the material or cause swelling. Restrictions must be made as regards the pressure and/or temperature, taking the expected service life into account. The service life of the installation can be significantly shortened. Further consultations with AGRU are recommended.

non resistant: **-**

The material cannot be used with the medium at all, or only under special conditions.

oxidising property: **Ox**

stress cracking property: **S**

swelling property: **Q**

diffusion property: **D**

3/ RESISTANCE FACTOR: f_{cr}

The resistance factor [f_{cr}] quantifies the effect of the working medium on the creep strength of thermoplastic material.

4/ OTHER NOTES:

MIXTURES:

The statement in this listing relates to the media described. If the media are mixtures of different acids and/or alkalis, we recommend an inquiry to AGRU.

WELDED CONNECTIONS:

Welded connections out of PE, PP, PVDF and ECTFE have practically the same chemical resistance as the parent material. In case of stress cracking media, welded connections are under a higher risk because of the stress in the welding seam.

SEALING MATERIALS:

The lifetime of the sealing material and the material of the pipeline could be different depending upon the working conditions.

During transportation of strong aggressive media such as hydrochloric acid, you also have to consider the chemical resistance properties of a sealing material.

See also ISO TR 7620 "Chemical resistance of rubber material".

5/ GENERAL SUMMARY AND LIMITS OF APPLICATION

6/ CHEMICAL RESISTANCE LIST

7/ INQUIRY FORM

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Acetaldehyde	CH ₃ -CHO(C ₂ H ₄ O)	21	technically pure	20	+	o	-	
				40	o	-		
				60				
				80				
				100				
Acetaldehyde			40% aqueous solution	20	+	+	-	
				40	+	+		
				60	o	+		
				80		o		
				100		-		
Acetic acid	CH ₃ COOH	118	technically pure, glacial	20	+/S	+/S	+	+
				40	+/S	+/S	o	+
				60	o	o	-	+
				80		-		+
				100				+
Acetic acid	CH ₃ COOH		50%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			o	+
				100			o	+
Acetic acid	CH ₃ COOH		10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
Acetic acid anhydride	C ₄ H ₆ O ₃	139	technically pure	20	+/S	+	-	+
				40	+	o		
				60	o			
				80				
				100				
Acetone	CH ₃ -CO-CH ₃	56	technically pure	20	+/S	+	-	+
				40	+/S	+		+
				60	+/S	+		-
				80				-
				100				-
				120				-

Acetone	CH ₃ -CO-CH ₃		up to 10%, aqueous	20	+	+	o	+
				40	+	+	o	+
				60	+	+	o	-
				80				-
				100				-
				120				-
Acrylonitrile	CH ₂ =CH-CN	77	technically pure	20	+	+	-	+
				40	+	o		
				60	+	o		
				80				
				100				
				120				
Adipic acid	HOOC-(CH ₂) ₄ -COOH		saturated, aqueous	20	+/S	+	+	+
				40	+/S	+		+
				60	+/S	+		
				80		+		
				100				
				120				
Alcoholic spirits (Gin, Whiskey, etc.)			approx. 40% ethyl alcohol	20	+	+	+	
				40	+	+		
				60	+	+		
				80				
				100				
				120				
Allyl alcohol	H ₂ C=CH-CH ₂ -OH	97	96%	20	+/S	+		
				40	+/S	+		
				60	+/S	+		
				80				
				100				
				120				
Aluminium chloride	AlCl ₃		10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		o	+	+
				120			+	+
Aluminium chloride	AlCl ₃	115	saturated	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		o	+	+
				120			+	+

Aluminium sulphate	$Al_2(SO_4)_3$		10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Ammonia	NH_3	-33	gaseous, technically pure	20	+	+	+	+
				40	+	+	+	+
				60	o	+	o	+
				80		+	o	+
				100			o	+
				120				
Ammonium acetate	CH_3COONH_4		aqueous, all	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	
				80		+	+	
				100		+	+	
				120				
Ammonium carbonate	$(NH_4)_2CO_3$		50%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Ammonium chloride	NH_4Cl	115	10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Ammonium chloride	NH_4Cl		aqueous, cold saturated	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Ammonium hydrogen fluoride	NH_4HF_2		50%, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80				
				100				
				120				

Ammonium hydroxide	NH ₄ OH		aqueous, cold saturated	20	+	+	-	+
				40	+	+		+
				60	+	+		+
				80				+
				100				+
				120				+
Ammonium nitrate	NH ₄ NO ₃	112	10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		o	+	+
				100			+	+
				120			+	+
Ammonium nitrate	NH ₄ NO ₃		aqueous, saturated	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		o	+	+
				100			+	+
				120			+	+
Ammonium phosphate	NH ₄ H ₂ PO ₄		aqueous, all	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Ammonium sulphate	(NH ₄) ₂ SO ₄		10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Ammonium sulphate	(NH ₄) ₂ SO ₄		aqueous, saturated	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Ammonium sulphide	(NH ₄) ₂ S		aqueous, all	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80				+
				100				+
				120				+

Amyl acetate	$\text{CH}_3(\text{CH}_2)_4\text{-OOCCH}_3$	141	technically pure	20	+/S	o	+	+
				40	+/S	o	o	+
				60	+/S	-	o	-
				80				-
				100				-
				120				-
Amyl alcohol	$\text{CH}_3(\text{CH}_2)_3\text{-CH}_2\text{-OH}$	137	technically pure	20	+	+	+	
				40	+	+	+	
				60	o	+	+	
				80		+	+	
				100			+	
				120			o	
Aniline	-NH_2	182	technically pure	20	+/S	o	+	+
				40	+/S	o	o	+
				60	o/S	o	-	+
				80				+
				100				+
				120				
Aniline hydrochloride	$\text{-NH}_3\text{+Cl}$		aqueous, saturated	20	+	+	+	
				40	+	+		
				60	o	o		
				80				
				100				
				120				
Anon, see Cyclohexanone			technically pure	20				
				40				
				60				
				80				
				100				
				120				
Antimony trichloride	SbCl_3		90%, aqueous	20	+	+	+	+
				40	+	+	+	
				60	+	+	+	
				80				
				100				
				120				
Aqua regia	$\text{HNO}_3\text{+HCl}$		concentrated	20	-	-	o	+
				40				+
				60				+
				80				+
				100				+
				120				

Arsenic acid	H_3AsO_4	80%, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120			+	+

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Barium hydroxide	Ba(OH) ₂	102	aqueous, saturated	20	+	+	-	+
				40	+	+		+
				60	+	+		+
				80		+		+
				100				+
				120				+
Barium salts			aqueous, all	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120				+
Battery acid, see Sulphuric acid up to 40%				20				
				40				
				60				
				80				
				100				
				120				
Beef tallow emulsion, sulphonated			usual commercial	20	+	+	+	
				40			+	
				60			+	
				80				
				100				
				120				
Beer			usual commercial	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100				+
				120				+
Benzaldehyde	H ₅ C ₆ -CHO	180	saturated, aqueous	20	+/S	+	+	+
				40	+/S	+	o	+
				60	+/S	+	-	-
				80		+		-
				100				-
				120				-
Benzene	C ₆ H ₆	80	technically pure	20	o/S	o/S	+	+
				40	o/S	-	o	+
				60			-	-
				80				-
				100				-
				120				

Benzine (also Petrol)	$C_5H_{12} - C_{12}H_{26}$	80 - 130	free of lead and aromatic compounds	20	+S	o/Q/D	+	
				40	+S		+	
				60	o/S		+	
				80			+	
				100			+	
				120			+	
Benzoic acid	H_5C_6-COOH		aqueous, all	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Benzyl alcohol	$-CH_2OH$	206	technically pure	20	+	+	+	
				40	+	+	+	
				60	o	o	o	
				80			-	
				100				
				120				
Bisulfite, see Natriumbisulfite			aqueous, all	20				
				40				
				60				
				80				
				100				
				120				
Bleaching Type	$NaOCl+NaCl$		12,5% active chlorine, aqueous	20	o/Ox	o/Ox	o	+
				40	-	-		+
				60				+
				80				+
				100				+
				120				+
Borax	$Na_2B_4O_7$		all, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120				+
Boric acid	H_3BO_3		all, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120			+	+

Brandy			usual	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80				+
				100				+
Brine, sea water				120				
				20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
Bromine water			saturated, aqueous	100		+	+	+
				120			+	+
				20	-	-	+	+
				40			+	+
				60			+	+
Bromine, liquid	Br ₂	59	technically pure	80			+	
				100			o	
				120				
				20	-	-	+	
				40			+	
Bromine, vapours	Br ₂		high	60			+	-
				80			+	-
				100			o	-
				120				-
				20	-	-	+	+
Butadiene	H ₂ C=CH-CH=CH ₂	-4	technically pure	40		+	+	+
				60		+	+	+
				80			+	+
				100			+	+
				120				+
Butane	C ₄ H ₁₀	0	technically pure	20	+	+	+	+
				40	+	+		+
				60	+	+		+
				80				+
				100				+
				120				+

Butanediol	HO-CH ₂ -CH ₂ -CH ₂ -CH ₂ -OH	230	10%, aqueous	20	+	+		
				40	+	+		
				60	+	+		
				80				
				100				
				120				
Butanol	C ₄ H ₉ OH	117	technically pure	20	+/S	+	+	
				40	+/S	+	+	
				60	+/S	o	+	
				80		o	+	
				100			o	
				120				
Butyl acetate	C ₆ H ₁₂ O ₂	126	technically pure	20	+/S	o	+	+
				40			o	-
				60			-	-
				80				-
				100				-
				120				-
Butyl phenol	C ₁₀ H ₁₄ O	237	technically pure	20	o	+	+	+
				40			+	+
				60			+	+
				80			+	+
				100				+
				120				
Butylene glycol	HO-CH ₂ -CH ₂ -CH ₂ -CH ₂ -OH	235	technically pure	20	+/S	+	+	
				40	+/S	+	+	
				60	+/S	+	+	
				80			+	
				100				
				120				
Butylene liquid	C ₄ H ₈		technically pure	20	-	-	+	+
				40				+
				60				+
				80				+
				100				+
				120				+
Butyric acid	CH ₃ -CH ₂ -CH ₂ -COOH	163	technically pure	20	+/S	+	+	+
				40	+		+	+
				60	o		+	+
				80			+	+
				100			o	+
				120				+

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Calcium chloride	CaCl ₂		saturated, aqueous, all	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Calcium hydroxide, slaked lime	Ca(OH) ₂		saturated, aqueous	20	+	+	o	+
				40	+	+	-	+
				60	+	+		+
				80		+		+
				100				+
				120				+
Calcium hypochlorite (also chloride of lime)	Ca(OCl) ₂		cold saturated, aqueous	20	+	+	o	+
				40	+	+	-	+
				60	+	+		+
				80				+
				100				+
				120				+
Calcium nitrate	Ca(NO ₃) ₂		50% aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120				+
Carbon dioxide (also Carbonic acid)	CO ₂		technically pure, anhydrous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120				+
Carbon dioxide (also Carbonic acid)			technically pure, moist	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100				+
				120				+
Carbon disulphide	CS ₂	46	technically pure	20	o	o	+	+
				40				
				60				
				80				
				100				
				120				

Carbon tetrachloride	CCl ₄	77	technically pure	20	-	-	+	+
				40			+	+
				60			o	+
				80				+
				100				+
				120				+
Caustic potash solution (also potassium hydroxide)	KOH	131	50%, aqueous	20	+	+	-	
				40	+	+		
				60	+	+		
				80		+		
				100		+		
				120				
Caustic soda solution (also Sodium Hydroxide)	NaOH		up to 10%, aqueous	20	+	+	-	+
				40	+	+		+
				60	+	+		+
				80		+		+
				100		+		+
				120				+
Caustic soda solution (also Sodium Hydroxide)	NaOH		up to 40%, aqueous	20	+	+	-	+
				40	+	+		+
				60	+	+		+
				80		+		+
				100		+		+
				120				+
Caustic soda solution (also Sodium Hydroxide)	NaOH		50%, aqueous	20	+	+	-	+
				40	+	+		+
				60	+	+		+
				80		+		+
				100		+		+
				120				+

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Densodrin W				20			+	
				40				
				60				
				80				
				100				
				120				
Detergents			for usual washing lathers	20	+	+	+	+
				40	+	+	+	+
				60	+/S	+	+	+
				80		+/S	+	+
				100			+	+
				120				+
Dextrine (starch gum)			usual commercial	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120			+	+
Dextrose, see Glucose				20				
				40				
				60				
				80				
				100				
				120				
Di-isobutyl ketone	$((CH_3)_2CH)_2CO$		technically pure	20	+	+	+	+
				40			+	+
				60	-	-	o	
				80				
				100				
				120				
Dibutyl ether	$C_4H_9OC_4H_9$	142	technically pure	20	o/S	o		
				40				
				60	-	-		
				80				
				100				
				120				
Dibutyl sebacate	$C_8H_{16}(COOC_4H_9)_2$	344	technically pure	20	+/S	+	+	+
				40	o	o		+
				60				+
				80				+
				100				+
				120				

Dibutylphthalate			technically pure	20	+/S	+	+	
				40	o	o	+	
				60	o	o	o	
				80		-		
				100		-		
				120				
Dichlorethylene	ClCH=CHCl		technically pure	20	-	o	+	+
				40			+	-
				60				-
				80				-
				100				-
				120				-
Dichloroacetic acid	Cl ₂ CHCOOH	194	technically pure	20	+/S	+	+	
				40	+/S	+	+	
				60	o/S	+	o	
				80			-	
				100				
				120				
Dichloroacetic acid	Cl ₂ CHCOOH		50%, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			o	
				100			-	
				120				
Dichloroacetic acid methyl ester	Cl ₂ CHCOOCH ₃	143	technically pure	20	+	+	o	
				40	+	+		
				60	+	+		
				80				
				100				
				120				
Dichlorobenzene	C ₆ H ₄ Cl ₂	180	technically pure	20	o/S	o/S	+	+
				40			+	-
				60			+	-
				80			o	-
				100				-
				120				-
Dichloroethane, see Ethylene chloride				20				
				40				
				60				
				80				
				100				
				120				

Diesel oil				20	+S	o	+	
				40			+	
				60	o		+	
				80			+	
				100			+	
				120			+	
Diethylamine	$(H_5C_2)_2NH$	56	technically pure	20	+	+	+	
				40			o	
				60			-	
				80				
				100				
				120				
Diglycolic acid	$HOOC-CH_2-O-CH_2-COOH$		30%, aqueous	20	+	+	+	+
				40	+	+		
				60	+	+		
				80				
				100				
				120				
Dimethyl amine	$(CH_3)_2NH$	7	technically pure	20	+	+	o	
				40	+		-	
				60	o			
				80				
				100				
				120				
Dimethyl formamide	C_3H_7NO	153	technically pure	20	+S	+	-	+
				40	+S	+		+
				60	o	+		+
				80				+
				100				+
				120				-
Dinonyl phthalate			technically pure	20	+S	+		
				40	+S	-		
				60				
				80				
				100				
				120				
Dioctyl phthalate			technically pure	20	+S	+		+
				40	+S	-		-
				60		-		-
				80				-
				100				-
				120				-

Dioxane	O(C ₂ H ₄) ₂ O	101	technically pure	20	+/S	o	-	+
				40	+/S	o		+
				60	+/S	o		o
				80		-		-
				100				-
				120				-
Drinking water, see Water				20				
				40				
				60				
				80				
				100				
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Ethyl acetate	CH ₃ COOCH ₂ -CH ₃	77	technically pure	20	+/S/D	o/S	o	+
				40	+/S/D	o/S	-	+
				60				-
				80				-
				100				-
				120				-
Ethyl acrylate	CH ₂ =CH-COOCH ₂ CH ₃	100	technically pure	20	+/S/Q	+	-	
				40	+/S/Q	+		
				60	+/S/Q	+		
				80				
				100				
				120				
Ethyl alcohol	CH ₃ -CH ₂ -OH	78	technically pure, 96%	20	+/S	+	+	
				40	+/S	+	o	
				60	+/S	+	-	
				80		+		
				100				
				120				
Ethyl alcohol/acetic acid (fermentation mixture)			technically pure	20	+/S	+/S	+	
				40	o/S		+	
				60	o/S		+	
				80			o	
				100				
				120				
Ethyl chloride	CH ₃ -CH ₂ -Cl	12	technically pure	20	o	o/S	+	+
				40	-	-	+	+
				60			+	+
				80			+	+
				100			o	+
				120				+
Ethyl ether	CH ₃ CH ₂ -O-CH ₂ CH ₃	35	technically pure	20	o/S	+/S	+	+
				40			+	
				60				
				80				
				100				
				120				
Ethylbenzene	-CH ₂ -CH ₃	136	technically pure	20	o/S	o/S	+	
				40	-	-		
				60		-		
				80				
				100				
				120				

Ethylene chloride	ClCH ₂ -CH ₂ Cl	83	technically pure	20	o	o/S	+	+
				40		-	+	+
				60		-	+	+
				80			+	+
				100			o	+
				120			-	+
Ethylene diamine	H ₂ N-CH ₂ -CH ₂ -NH ₂	117	technically pure	20	+	+	o	
				40	+	+	o	
				60	+	+	-	
				80				
				100				
				120				
Ethylene glycol	HO-CH ₂ -CH ₂ -OH	198		20	+/S	+/S	+	
				40	+/S	+/S	+	
				60	+/S	+/S	+	
				80		+	+	
				100		+	+	
				120			+	
Ethylene oxide	CH ₂ -CH ₂ O	10	technically pure, liquid	20	-	o	+	
				40			+	
				60			+	
				80			o	
				100				
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Fatty acids			technically pure	20	+	+	+	
				40	+	+	+	
				60	o	o	+	
				80			+	
				100				
				120				
Fatty alcohol sulphonates			aqueous	20	+/S	+/S	+	
				40	+	+	+	
				60	+	o	+	
				80			+	
				100			+	
				120				
Fertilizer salts			aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			+	
				100				
				120				
Fluorine	F ₂		technically pure	20	-	-	-	
				40				
				60				
				80				
				100				
				120				
Fluosilicic acid	H ₂ SiF ₆		32%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120				+
Formaldehyde (also Formalin)	CH ₂ O		40%, aqueous	20	+/S	+	+	+
				40	+	+	+	+
				60	+	+	+	
				80			+	
				100				
				120				
Formamide	CH ₃ NO	210	technically pure	20	+	+		
				40	+	+		
				60	+			
				80				
				100				
				120				

Formic acid	HCOOH	101	up to 50%, aqueous	20	+/S/D	+/S/D	+	+
				40	+/S/D	+/S/D	+	+
				60	+/S/D	+/S/D	+	+
				80			+	+
				100			+	+
				120				+
Formic acid	HCOOH		technically pure	20	+/S/D	+	+	+
				40	+/S/D	o	+	+
				60	+/S/D	-	+	+
				80			+	+
				100			+	+
				120				+
Freon 113, see Trifluorotrchloroethane				20				
				40				
				60				
				80				
				100				
				120				
Frigen 12 (also Freon 12)	CF ₂ Cl ₂		technically pure	20	-	-	o	
				40				
				60				
				80				
				100				
				120				
Fruit juices				20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	
Fruit pulp				20	+	+		
				40	+	+		
				60	+	+		
				80				
				100				
				120				
Fuel oil				20	+	+	+	
				40	o	o	+	
				60			+	
				80			+	
				100			+	
				120				

Furfuryl alcohol	$C_5H_6O_2$	171	technically pure	20	+/S	+	+
				40	+	+	+
				60	o	o	o
				80			-
				100			
				120			

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Gelatine			all, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100				+
				120				
Glucose	C ₆ H ₁₂ O ₆		all, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120			+	+
Glycerine			all, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	
Glycerine	C ₃ H ₈ O ₃	290	technically pure	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100		+	+	
				120			+	
Glycocol (also Glycin)	NH ₂ -CH ₂ -COOH		10%, aqueous	20	+	+	+	
				40	+	+	+	
				60			+	
				80			+	
				100				
				120				
Glycol, see Ethylene glycol				20				
				40				
				60				
				80				
				100				
				120				
Glycolic acid	HO-CH ₂ -COOH		37%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	o	+	
				80			+	
				100			+	
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Heptane	C ₇ H ₁₆	98	technically pure	20	+	+	+	+
				40			+	+
				60	o	o	+	+
				80			+	+
				100			+	+
				120				+
Hexane	C ₆ H ₁₄	69	technically pure	20	+	+	+	+
				40			+	+
				60	o	o	+	+
				80			+	+
				100			+	+
				120				+
Hydrazine hydrate	H ₂ N-NH ₂ H ₂ O	113	aqueous	20	+	+	-	
				40	+	+		
				60	+	+		
				80				
				100				
				120				
Hydrobromic acid	HBr	124	50%, aqueous	20	+/S	+/S	+	
				40	+/S	+/S	+	
				60	+/S	+/S	+	
				80			+	
				100			+	
				120				
Hydrochloric acid	HCl		5%, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	
Hydrochloric acid	HCl		10%, aqueous	20	+	+	+	
				40	+	+	+	
				60	+/S	+	+	
				80		+	+	
				100			+	
				120			+	
Hydrochloric acid	HCl		up to 30%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+/S	+	+	+
				80		+	+	+
				100			+	+
				120				+

Hydrochloric acid	HCl		36%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+/S/D	+/S/D	+	+
				80		+/S/D	+	+
				100			+	+
				120				+
Hydrocyanic acid	HCN	26	technically pure	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			+	
				100				
				120				
Hydrofluoric acid	HF		70%, aqueous	20	+	+/S	+	
				40	+	+	+	
				60	o	o	+	
				80			+	
				100			+	
				120				
Hydrofluoric acid	HF		50%, aqueous	20	+	+/S	+	+
				40	+	+	+	+
				60	o	+	+	+
				80		o	+	+
				100				+
				120				+
Hydrofluoric acid	HF		up to 40%, aqueous	20	+	+/S	+	+
				40	+	+	+	+
				60	o	+	+	+
				80		o	+	+
				100			+	+
				120				+
Hydrogen	H ₂	-253	technically pure	20	+	+	+	+
				40	+	+	+	+
				60	+/D	+/D	+	+
				80			+	+
				100			+	+
				120				+
Hydrogen chloride	HCl	-85	technically pure, gaseous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			+	
				100			+	
				120				

Hydrogen peroxide	H ₂ O ₂	10%, aqueous	20	+	+	o	
			40	+	+	o	
			60	+	+	-	
			80				
			100				
Hydrogen peroxide	H ₂ O ₂	30%, aqueous	20	+	+	o	+
			40	+	+	o	+
			60	+	o/Ox	-	
			80				
			100				
Hydrogen peroxide	H ₂ O ₂	90%, aqueous	20	+	-	o	+
			40	+			+
			60	-			
			80				
			100				
Hydrogen sulphide	H ₂ S	technically pure	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80			+	+
			100			+	+
Hydrogen sulphide	H ₂ S	saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	
			80			+	
			100			+	
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	20	+	+		
			40	+	+		
			60	+	+		
			80				
			100				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	120				
			20				
			40				
			60				
			80				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	100				
			120				
			20				
			40				
			60				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	80				
			100				
			120				
			20				
			40				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	60				
			80				
			100				
			120				
			20				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	40				
			60				
			80				
			100				
			120				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	20				
			40				
			60				
			80				
			100				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	120				
			20				
			40				
			60				
			80				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	100				
			120				
			20				
			40				
			60				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	80				
			100				
			120				
			20				
			40				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	60				
			80				
			100				
			120				
			20				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	40				
			60				
			80				
			100				
			120				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	20				
			40				
			60				
			80				
			100				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	120				
			20				
			40				
			60				
			80				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	100				
			120				
			20				
			40				
			60				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	80				
			100				
			120				
			20				
			40				
Hydroxylamine sulphate	(H ₂ NOH) ₂ H ₂ SO ₄	all, aqueous	60				
			80				
			100				
			120				
			20				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Iodine solution			6,5% iodine in ethanol	20	+	+	+	+
				40	+	+	+	+
				60	o	o	+	+
				80				+
				100				+
				120				
Iron salts			all, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	
Iso-octane	C ₈ H ₁₈	99	technically pure	20	+	+	+	+
				40			+	+
				60	o	o	+	+
				80			+	+
				100			+	+
				120				+
Isopropanol			technically pure	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	o	
				100				
				120				
Isopropyl ether			technically pure	20	o/S	o/S	+	+
				40			+	+
				60	-	-	+	
				80				
				100				
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Lactic acid	CH ₃ CHOHCOOH		10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	o	
				80		+	o	
				100		+	-	
Lanolin			technically pure	20	+/S	+	+	
				40	o	+	+	
				60	o	+	+	
				80			+	
				100			+	
Lead acetate	Pb(CH ₃ COO) ₂		aqueous, saturated	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			+	
				100			+	
Linseed oil			technically pure	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
Liqueurs				20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100				
Lubricating oils				20	+	+	+	+
				40	+		+	+
				60	o		+	+
				80			+	+
				100			+	+
Lubricating oils, free of aromatic compounds				20	+/S	+	+	
				40	+	+	+	
				60	o	o	+	
				80			+	
				100			+	
				120			+	

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Magnesium salts			all, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	
Maleic acid	(CHCOO) ₂		cold saturated, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120			+	+
Malic acid	C ₄ H ₆ O ₅		1%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120				+
Marmelade				20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100		+	+	
				120			+	
Mercury	Hg		pure	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120			+	+
Mercury salts			cold saturated, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			+	
				100			+	
				120			+	
Methane	CH ₄	-161	technically pure	20	+	+	+	+
				40			+	+
				60			+	+
				80				+
				100				+
				120				+

Methanol	CH ₃ OH	65	all	20	+	+	+	
				40	+	+	o	
				60	+	+	-	
				80		+		
				100				
Methyl acetate	CH ₃ COOCH ₃	56	technically pure	20	+	+	+	
				40	+	+	o	
				60		o		
				80				
				100				
Methyl amine	CH ₃ NH ₂	-6	32%, aqueous	20	+	+	o	+
				40				-
				60				-
				80				-
				100				-
Methyl bromide	CH ₃ Br	4	technically pure	20	o	-	+	+
				40			+	+
				60			+	+
				80				+
				100				+
Methyl chloride	CH ₃ Cl	-24	technically pure	20	o/S	-	+	+
				40			+	+
				60			+	+
				80				+
				100				+
Methyl ethyl ketone	CH ₃ COC ₂ H ₅	80	technically pure	20	+	+	-	+
				40	+	o		+
				60	o	o		o
				80				-
				100				-
Methylene chloride	CH ₂ Cl ₂	40	technically pure	20	o/S	o	+	+
				40			o	+
				60			o	o
				80				-
				100				-
				120				-

Milk		20	+	+	+	+
		40	+	+	+	+
		60	+	+	+	+
		80		+	+	+
		100			+	+
		120				+
Mineral water		20	+	+	+	
		40	+	+	+	
		60	+	+	+	
		80		+	+	
		100			+	+
		120				+
Mixed acids (nitric 15%, hydrofluoric 5%, sulphuric 18%)	3 parts, 1 part, 2 parts	20	o	o		+
		40				+
		60				+
		80				
		100				
		120				
Mixed acids (sulphuric, nitric, water)	(48%, 49%, 3%)	20	-	-		+
		40				
		60				
		80				
		100				
		120				
Mixed acids (sulphuric, nitric, water)	(50%, 50%, 0%)	20	-	-		+
		40				
		60				
		80				
		100				
		120				
Mixed acids (sulphuric, nitric, water)	(10%, 87%, 3%)	20	-	-		o
		40				
		60				
		80				
		100				
		120				
Mixed acids (sulphuric, nitric, water)	(50%, 31%, 19%)	20	-	-		+
		40				
		60				
		80				
		100				
		120				

Mixed acids (sulphuric, nitric, water)	(50%, 33%, 17%)	20	-	-	+		
		40					
		60					
		80					
		100					
		120					
Mixed acids (sulphuric, nitric, water)	(10%, 20%, 70%)	20	+	+	+		
		40	o	o	+		
		60			+		
		80			+		
		100					
		120					
Mixed acids (sulphuric, phosphoric, water)	(30%, 60%, 10%)	20	+	+	+		
		40	o	o	+		
		60			+		
		80			+		
		100					
		120					
Molasses		20	+	+	+	+	
		40	+	+	+	+	
		60	+	+	+	+	
		80			+	+	
		100				+	
		120				+	
Molasses flavouring		20	+	+	+		
		40	+	+	+		
		60	+	+	+		
		80			+		
		100					
		120					
Monochloroacetic acid ethyl ester	$\text{ClCH}_2\text{COOC}_2\text{H}_5$	144	technically pure	20	+	+	o
				40	+	+	
				60	+/S	+/S	
				80			
				100			
				120			
Monochloroacetic acid methyl ester	$\text{ClCH}_2\text{COOCH}_3$	130	technically pure	20	+	+	+
				40	+	+	o
				60	+/S	+/S	
				80			
				100			
				120			

Morpholin	129	technically pure	20	+	+	+
			40	+	+	+
			60	+	+	o
			80			
			100			
			120			
Mowilith D		usual commercial	20	+	+	+
			40			
			60			
			80			
			100			
			120			

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Naphthalene	C ₁₀ H ₈	218	technically pure	20	+/S	+	+	+
				40		+	+	
				60	o	+	o	
				80				
				100				-
				120				
Nickel salts			cold saturated, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	
Nitric acid	HNO ₃		6,3%, aqueous	20	+	+	+	+
				40	+		+	+
				60	+	o	+	+
				80			+	+
				100			+	+
				120				
Nitric acid	HNO ₃		up to 40%, aqueous	20	o/S	o/S	+	+
				40			+	+
				60	-	-	+	+
				80			+	+
				100			+	+
				120				
Nitric acid	HNO ₃		65%, aqueous	20	o/S	-	+	+
				40	-		+	+
				60			+	o
				80			o	-
				100			-	-
				120				-
Nitric acid	HNO ₃		90%	20	-	-	-	+
				40				+
				60				-
				80				-
				100				-
				120				-
Nitric oxide, see Nitrous gases				20				
				40				
				60				
				80				
				100				
				120				

Nitrobenzene	C ₆ H ₅ NO ₂	209	technically pure	20	+/S	+/S	+	+
				40	o/S	+/S	o	+
				60	o/S	o/S	-	o
				80				-
				100				-
				120				-
Nitrotoluene	C ₇ H ₇ NO ₂	222	technically pure	20	+	+	+	
				40	o	+	+	
				60	o/S	o/S	+	
				80			+	
				100			o	
				120				
Nitrous gases	NOx		diluted, moist and anhydrous	20	+/S	+/S	+	
				40	+/S	o/S	+	
				60	+/S	-	+	
				80			+	
				100			+	
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Oleic acid	C ₁₈ H ₃₄ O ₂		technically pure	20	+	+	+	+
				40	+	+	+	+
				60	o	o	+	+
				80			+	+
				100			+	+
				120			+	+
Oleum	H ₂ SO ₄ +SO ₃		10% SO3	20	-	-	-	+
				40				-
				60				-
				80				-
				100				-
				120				-
Oleum vapours			traces	20	-	-	-	
				40				
				60				
				80				
				100				
				120				
Olive oil				20	+	+	+	
				40	+	+	+	
				60	o	+	+	
				80		+	+	
				100				
				120				
Oxalic acid	HOOC-COOH		cold saturated, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	o	o
				80				-
				100				-
				120				-
Oxygen	O ₂		all	20	+	+	+	+
				40	+	+	+	+
				60	o	o	+	+
				80			+	+
				100			o	+
				120			o	+
Ozone	O ₃		up to 2%, in air	20	o	o	o	+
				40	-	-		+
				60				+
				80				+
				100				+
				120				

Ozone	cold saturated, aqueous	20	o	o	o
		40	-	-	
		60			
		80			
		100			
		120			

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Palm oil, palm nut oil				20	+	+	+	
				40	+	+	+	
				60	o	o	+	
				80			+	
				100			+	
				120				
Palmitic acid	C ₁₆ H ₃₂ O ₂	390	technically pure	20	+	+	+	+
				40	+	+	+	+
				60	o	o	+	+
				80			+	+
				100			+	+
				120			+	+
Paraffin emulsions			usual commercial, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	o	o	+	+
				80			+	+
				100			+	+
				120				+
Paraffin oil				20	+	+	+	
				40	+	+	+	
				60	o	o	+	
				80			+	
				100			+	
				120			+	
Perchloric acid	HClO ₄		10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120				
Perchloric acid	HClO ₄		70%, aqueous	20	+	o	+	+
				40	o	-	+	+
				60	-		+	o
				80			+	
				100			+	
				120				
Perchloroethylene (also Tetrachloroethylene)	Cl ₂ C=CCl ₂	121	technically pure	20	o	o	+	
				40			+	
				60			+	
				80			o	
				100				
				120				

Petroleum			technically pure	20	+	+	+	
				40	+	o	+	
				60	o/S	o/S	+	
				80			+	
				100			+	
				120			+	
Petroleum ether	40 - 70		technically pure	20	+	+	+	
				40	o	+	+	
				60	o	o	+	
				80			+	
				100			+	
				120				
Petroleum jelly			technically pure	20	+/S	+	+	+
				40	o		+	+
				60	-	o	+	+
				80			+	+
				100			+	+
				120			+	+
Phenol (also Carbo-lic acid)	C ₆ H ₆ O	182	up to 10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	o
				80			+	-
				100			+	-
				120				-
Phenol (also Carbo-lic acid)	C ₆ H ₆ O		up to 90%, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	o	
				80				
				100				
				120				
Phenyl hydrazine	C ₆ H ₅ NHNH ₂	243	technically pure	20	o	o	+	+
				40			+	+
				60				
				80				
				100				
				120				
Phenylhydrazine- hydrochloride	C ₆ H ₅ NHNH ₃ Cl		aqueous	20		+	+	
				40		o	+	
				60		o	+	
				80				
				100				
				120				

Phosgene	COCl ₂	8	liquid, technically pure	20	o	o		
				40				
				60				
				80				
				100				
				120				
Phosgene	COCl ₂	8	gaseous, technically pure	20	o	o	+	
				40				+
				60				
				80				
				100				
				120				
Phosphoric acid	H ₃ PO ₄		up to 30%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120			+	+
Phosphoric acid	H ₃ PO ₄		50%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120			+	+
Phosphoric acid	H ₃ PO ₄		85%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	o	+	+	+
				80		+	+	+
				100			+	+
				120			+	+
Phosphorous oxychloride	POCl ₃	105	technically pure	20	+	o	-	
				40	+	o		
				60	o	o		
				80				
				100				
				120				
Phosphorous pentachloride	PCl ₅	162	technically pure	20	+	o	-	
				40	+	o		
				60	o	o		
				80				
				100				
				120				

Phosphorous pentoxide	P ₂ O ₅		technically pure	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120				
Phosphorous trichloride	PCl ₃	75	technically pure	20	+	o	-	
				40	+	o		
				60	o	o		
				80				
				100				
				120				
Photographic developer			usual commercial	20	+	+	+	
				40	+	+	+	
				60	o	+	+	
				80				
				100				
				120				
Photographic emulsions				20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80				
				100				
				120				
Photographic fixer			usual commercial	20	+	+	+	
				40	+	+	+	
				60		+	+	
				80				
				100				
				120				
Phthalic acid			saturated, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			+	
				100			+	
				120				
Picric acid	C ₆ H ₂ (OH)(NO ₂) ₃		1%, aqueous	20	+	+	+	+
				40			+	
				60			+	
				80			+	
				100			+	
				120				

Potash (also Potassium carbonate)	K_2CO_3		cold saturated, aqueous	20	+	+	+	+
				40	+	+	o	+
				60	+	+	o	+
				80		+		+
				100				+
				120				+
Potassium aluminium sulphates (also Alum)	$KAl(SO_4)_2 \cdot 12H_2O$		50%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120			+	+
Potassium bichromate	$K_2Cr_2O_7$	107	saturated, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		+	+	+
				120			+	+
Potassium borate	K_3BO_3		10%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+		+
				100		+		+
				120				+
Potassium bromate	$KBrO_3$		cold saturated, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	
Potassium bromide	KBr		all, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120			+	+
Potassium carbonate, see Potash			cold saturated	20				
				40				
				60				
				80				
				100				
				120				

Potassium chlorate	KClO ₃	cold saturated, aqueous	20	+	+	o	+
			40	+	+	-	+
			60	+	+		+
			80				+
			100				+
			120				+
Potassium chloride	KCl	all, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120			+	+
Potassium chromate	K ₂ CrO ₄	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120				+
Potassium cyanide	KCN	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	o	+
			80		+		+
			100				+
			120				+
Potassium iodide	KJ	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120				+
Potassium nitrate (also Salpetre)	KNO ₃	50%, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120				+
Potassium perchlorate	KClO ₄	cold saturated, aqueous	20	+/Ox	+/Ox	+	+
			40	+	+	+	+
			60	+	+	+	
			80			+	
			100				
			120				

Potassium permanganate	KMnO ₄		cold saturated, aqueous	20	+/Ox	+/Ox	+	+
				40	+	+	+	+
				60	+	o	+	+
				80			+	+
				100			+	+
				120				+
Potassium persulphate	K ₂ S ₂ O ₈		all, aqueous	20	+/Ox	+/Ox	+	+
				40	+	+	+	+
				60	+	+	+	
				80			+	
				100				
				120				
Potassium phosphate	KH ₂ PO ₄		all, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100				
				120				
Potassium sulphate	K ₂ SO ₄		all, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120				+
Propane	C ₃ H ₈	-42	technically pure, liquid	20	+	+	+	+
				40	+	+	+	+
				60		+	+	+
				80				+
				100				+
				120				+
Propane	C ₃ H ₈		technically pure, gaseous	20	+	+	+	+
				40	+	+	+	+
				60		+	+	+
				80				+
				100				+
				120				+
Propanol, n-/iso-	C ₃ H ₈ O	97/82	technically pure	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			o	
				100				
				120				

Propargyl alcohol	CH=C-CH ₂ -OH	114	7%, aqueous	20	+	+	+	
				40	+	+	o	
				60	+	+	o	
				80				
				100				
Propionic acid	CH ₃ CH ₂ COOH	141	50%, aqueous	120				
				20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80				
Propionic acid	CH ₃ CH ₂ COOH		technically pure	100				
				120				
				20	+	+	+	
				40	o	o	+	
				60	o	o	+	
Propylene glycol	HO-CH ₂ -CH ₂ -CH ₂ -OH		technically pure	80				
				100				
				120				
				20	+	+	+	
				40	+	+	+	
Propylene oxide	C ₃ H ₆ O	35	technically pure	60	+	+	+	
				80				
				100				
				120				
				20	+	+	+	
Pyridine	C ₅ H ₅ N	115	technically pure	40				
				60				
				80				
				100				
				120				
				20	+	o	+	-
				40	o	o	-	-
				60	o	o		-
				80				-
				100				-
				120				-

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Ramasit (fabric waterproofing agents)			usual commercial	20			+	
				40			+	
				60			+	
				80				
				100				
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Silicone oil				20	+	+		
				40	+	+		
				60	+	+		
				80		+		
				100				
				120				
Silver salts			cold saturated, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120				
Soap solution			all, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+/S	+/S	+	+
				80			+	+
				100			+	+
				120				+
Soda, see sodium carbonate				20				
				40				
				60				
				80				
				100				
				120				
Sodium acetate	CH ₃ COONa		all, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100		o	o	+
				120				+
Sodium benzoate	C ₆ H ₅ COONa		cold saturated, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			o	+
				120				+
Sodium bicarbonate	NaHCO ₃		cold saturated, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120				+

Sodium bisulphate	NaHSO ₄	10%, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120			+	+
Sodium bisulphite	NaHSO ₃	all, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80			+	+
			100			+	+
			120				+
Sodium bromate	NaBrO ₃	all, aqueous	20	+	+	+	
			40	+	+	+	
			60	+	+	+	
			80		+	+	
			100			+	
			120				
Sodium bromide	NaBr	all, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120			+	+
Sodium carbonate (also soda)	Na ₂ CO ₃	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120				+
Sodium chlorate	NaClO ₃	all, aqueous	20	+	+	o	+
			40	+	+		+
			60	+	+		+
			80		+		+
			100				+
			120				+
Sodium chloride (also Cooking salt)	NaCl	all, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120			+	+

Sodium chlorite	NaClO ₂	diluted, aqueous	20	+	+	+	+			
			40			o	+	+		
			60				o	+	+	
			80					+	+	
			100						o	+
			120							+
Sodium chromate	Na ₂ CrO ₄	diluted, aqueous	20	+	+	+				
			40	+	+	+				
			60	+	+	+				
			80			+	+			
			100					+		
			120							
Sodium disulfite	Na ₂ S ₂ O ₅	all, aqueous	20	+	+	+				
			40	+	+	+				
			60	+	+	+				
			80			+	+			
			100					+		
			120							
Sodium dithionite (also Hydrosulphite)	Na ₂ S ₂ O ₄	up to 10%, aqueous	20	+	+	+				
			40	+			+			
			60	+				o		
			80							
			100							
			120							
Sodium fluoride	NaF	cold saturated, aqueous	20	+	+	+	+			
			40	+			+	+		
			60	+			+	+		
			80				+	+		
			100				+	+		
			120						+	
Sodium hydroxide, see Caustic soda solution		up to 50%, aqueous	20							
			40							
			60							
			80							
			100							
			120							
Sodium hypochlorite	NaOCl	12,5% active chlorine, aqueous	20	o	o	o	+			
			40	-	-		+			
			60				+			
			80				+			
			100				+			
			120				+			

Sodium iodide	NaI	all, aqueous	20	+	+	+	+
			40	+		+	+
			60	+		o	+
			80				+
			100				+
			120				+
Sodium nitrate	NaNO ₃	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120			+	+
Sodium nitrite	NaNO ₂	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120			+	+
Sodium oxalate	Na ₂ C ₂ O ₄	cold saturated, aqueous	20	+	+	+	
			40	+	+	+	
			60	+	+	o	
			80		+		
			100				
			120				
Sodium persulphate	Na ₂ S ₂ O ₈	cold saturated, aqueous	20	+	+	+	
			40	+	+	+	
			60	+	+	+	
			80		+		
			100				
			120				
Sodium phosphate	Na ₃ PO ₄	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	o	+
			100			-	+
			120				+
Sodium silicate	Na ₂ SiO ₃	all, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	o	+
			80		+	-	+
			100				+
			120				+

Sodium sulphate	Na ₂ SO ₄	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120			+	+
Sodium sulphide	Na ₂ S	cold saturated, aqueous	20	+	+	o	+
			40	+	+	o	+
			60	+	+	o	+
			80		+		+
			100				+
			120				+
Sodium sulphite	Na ₂ SO ₃	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120				+
Sodium thiosulphate	Na ₂ S ₂ O ₃	cold saturated, aqueous	20	+	+	+	+
			40	+	+	+	+
			60	+	+	+	+
			80		+	+	+
			100			+	+
			120				+
Spindle oil			20	+	+	+	
			40	o	o	+	
			60	o	-	+	
			80			+	
			100				
			120				
Spinning bath acids containing carbon disulphide		100 mg CS ₂ /l	20	+	+	+	
			40			+	
			60				
			80				
			100				
			120				
Spinning bath acids containing carbon disulphide		200 mg CS ₂ /l	20	+	+	+	
			40			+	
			60				
			80				
			100				
			120				

Spinning bath acids containing carbon disulphide	700 mg CS ₂ /l	20	+	+	+			
		40				+		
		60						
		80						
		100						
		120						
Stannous chloride	SnCl ₂	20	+	+	+			
		40	+	+	+			
		60	+	+	+			
		80		+	+			
		100				+		
		120						
Starch solution	all, aqueous	20	+	+	+	+		
		40	+	+	+	+		
		60	+	+	+	+		
		80				+	+	
		100				+	+	
		120					+	
Starch syrup	usual commercial	20	+	+	+			
		40	+	+	+			
		60	+	+	+			
		80				+		
		100				+		
		120						
Stearic acid	C ₁₇ H ₃₅ COOH	technically pure	20	+	+	+		
			40				+	
			60	o/S	o	+		
			80				+	
			100				+	
			120				+	
Succinic acid	HOOC-CH ₂ -CH ₂ - COOH	aqueous, all	20	+	+	+	+	
			40	+	+	+	+	
			60	+	+	+	+	
			80					+
			100					+
			120					
Sugar syrup	usual commercial	20	+	+	+			
		40	+	+	+			
		60	+	+	+			
		80		+	+			
		100				+		
		120				+		

Sulphur	S		technically pure	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120			+	+
Sulphur dioxide	SO ₂	-10	technically pure, anhydrous	20	+	+	o	+
				40	+	+	o	+
				60	+	+	-	+
				80				+
				100				+
				120				
Sulphur dioxide	SO ₂		all, moist	20	+	+	+	+
				40	+	+	o	+
				60	+	+	-	
				80				
				100				
				120				
Sulphur dioxide	SO ₂		technically pure, liquid	20	+	+	-	
				40				
				60				
				80				
				100				
				120				
Sulphur trioxide	SO ₃			20	-	-	-	
				40				
				60				
				80				
				100				
				120				
Sulphuric acid	H ₂ SO ₄		up to 40%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120			+	+
Sulphuric acid	H ₂ SO ₄		up to 60%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120			+	+

Sulphuric acid	H ₂ SO ₄		up to 80%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+/S	+/S	+	+
				80			+	+
				100			+	+
Sulphuric acid	H ₂ SO ₄		90%, aqueous	120			o	+
				20	o/S	o/S	+	+
				40			+	+
				60			+	+
				80			+	+
Sulphuric acid	H ₂ SO ₄		96%, aqueous	100			o	+
				120				+
				20	o/S	o/S	+	+
				40			+	+
				60			+	+
Sulphurous acid	H ₂ SO ₃		saturated, aqueous	80			o	+
				100			-	+
				120				+
				20	+	+	+	+
				40	+	+	+	+
Sulphuryl chloride	SO ₂ Cl ₂	69	technically pure	60				
				80				
				100				
				120				
				20	-	-	o	

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Tallow			technically pure	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			+	
				100			+	
				120				
Tannic acid			all, aqueous	20	+	+		
				40	+	+		
				60	+	o		
				80				
				100				
				120				
Tanning extracts from plants			usual	20	+	+	+	
				40				
				60		o		
				80				
				100				
				120				
Tartaric acid	C ₄ H ₆ O ₆		all, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			+	+
				120			+	+
Tetrachloroethane	Cl ₂ CH-CHCl ₂	146	technically pure	20	o	o	+	
				40			+	
				60			o	
				80				
				100				
				120				
Tetrachloroethylene, see Perchloroethylene				20				
				40				
				60				
				80				
				100				
				120				
Tetraethyl lead	(CH ₃ CH ₂) ₄ Pb		technically pure	20	+	+	+	
				40			+	
				60			+	
				80			+	
				100			+	
				120			+	

Tetrahydrofurane	C ₄ H ₈ O	66	technically pure	20	o/S	o/S	o	-
				40			o	-
				60				-
				80				-
				100				-
				120				-
Tetrahydronaphthalene (also Tetralin)	C ₁₀ H ₁₂	207	technically pure	20	-	-	+	
				40				
				60				
				80				
				100				
				120				
Thionyl chloride	SOCl ₂	79	technically pure	20	-	-	-	+
				40				+
				60				
				80				
				100				
				120				
Toluene	C ₆ H ₅ CH ₃	111	technically pure	20	-	+S	+	+
				40			+	-
				60		o	o	-
				80			-	-
				100				-
				120				-
Tributylphosphate	(C ₄ H ₉) ₃ PO ₄	289	technically pure	20	+	+	+	+
				40	+	+		+
				60	+	+		o
				80				-
				100				-
				120				-
Trichlorethane	Cl ₃ -C-CH ₃	74	technically pure	20	o		+	
				40			+	
				60			o	
				80			-	
				100				
				120				
Trichloroacetic acid	Cl ₃ C-COOH	196	technically pure	20	+	+	o	+
				40	o	+		+
				60	-	+		o
				80				-
				100				-
				120				-

Trichloroacetic acid	Cl ₃ C-COOH		50%, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	o	
				80			-	
				100				
				120				
Trichloroethylene	Cl ₂ C=CHCl	87	technically pure	20	-	-	+	+
				40			+	-
				60			+	-
				80			+	-
				100				-
				120				-
Trichloromethane, see Chloroform				20				
				40				
				60				
				80				
				100				
				120				
Tricresyl phosphate	(H ₃ CC ₆ H ₅ O) ₃ PO ₄		technically pure	20	+	+		+
				40	+			+
				60	+	o		+
				80				+
				100				+
				120				
Triethanolamine	N(CH ₂ -CH ₂ -OH) ₃		technically pure	20	+	+	+	+
				40	+	+		-
				60	o/S	o		-
				80				-
				100				-
				120				-
Triethylamine	N(CH ₂ -CH ₃) ₃	89	technically pure	20	+	+	o	+
				40	o/S	o/S	o	+
				60			-	o
				80				-
				100				-
				120				-
Trifluorotrichloroethane (also Freon 113)	FCI ₂ C-CCIF ₂	47	technically pure	20	o/S	o/S	+	
				40				
				60				
				80				
				100				
				120				

Trioctylphosphate	$(C_8H_{17})_3PO_4$	technically pure	20	+	+	
			40	+		
			60			
			80			
			100			
			120			
Turpentine oil		technically pure	20	o	-	+
			40	o		
			60	o		
			80			
			100			
			120			

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Urea	H ₂ N-CO-NH ₂		up to 30%, aqueous	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80			+	+
				100			o	+
				120				
Urine				20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			+	
				100			+	
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Vegetable oils and fats				20	+	+	+	
				40	o/S	+	+	
				60		o/S	+	
				80			+	
				100			+	
				120				
Vinegar			usual commercial	20	+	+	+	+
				40	+	+	+	+
				60	+	+	+	+
				80		+	+	+
				100			+	+
				120				
Vinyl acetate	CH ₂ =CHOOCCH ₃	73	technically pure	20	+	+	+	+
				40	+	+	-	+
				60	o/S	o		o
				80				-
				100				-
				120				
Vinyl chloride	CH ₂ =CHCl	-14	technically pure	20			+	
				40			+	
				60			+	
				80			+	
				100				
				120				
Viscose spinning solution				20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80				
				100				
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Waste gases containing carbon dioxide			all	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	
Waste gases containing carbon monoxide			all	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120				
Waste gases containing hydrochloric acid			all	20	+	+	+	
				40	+	+	+	
				60	+	o	+	
				80			+	
				100			+	
				120			+	
Waste gases containing hydrogen fluoride			traces	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80			+	
				100			+	
				120				
Waste gases containing nitrous gases			traces	20	+	+	+	
				40	+	+	+	
				60	+	o	+	
				80			+	
				100			+	
				120				
Waste gases containing sulphur dioxide			traces	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	
Waste gases containing sulphur trioxide			all	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		o	+	
				100			+	
				120			+	

Waste gases containing sulphuric acid	traces	20	+	+	+	
		40	+	+	+	
		60	+	o	+	
		80			+	
		100			+	
		120				
Water (distilled, deionised) H ₂ O	100	20	+	+	+	+
		40	+	+	+	+
		60	+	+	+	+
		80		+	+	+
		100		+	+	+
		120			+	+
Water, condensed		20	+	+	+	+
		40	+	+	+	+
		60	+	+	+	+
		80		+	+	+
		100			+	+
		120			+	+
Water, drinking water		20	+	+	+	+
		40	+	+	+	+
		60	+	+	+	+
		80		+	+	+
		100		+	+	+
		120			+	+
Water, waste water without organic solvent		20	+	+	+	+
		40	+	+	+	+
		60	+	+	+	+
		80		+	+	+
		100			+	+
		120			+	+
Wax alcohol C ₃₁ H ₆₃ OH	technically pure	20	o	o	+	
		40	-	-	+	
		60			+	
		80				
		100				
		120				
Wetting agents	up to 5%, aqueous	20	+/S	+/S	+	
		40	+/S	+/S	+	
		60	+/S	+/S	+	
		80			+	
		100				
		120				

Wine vinegar	usual commercial	20	+	+	+	+
		40	+	+	+	+
		60	+	+	+	+
		80		+	+	+
		100			+	+
		120				
Wines, red and white	usual commercial	20	+	+	+	+
		40	+	+	+	+
		60	+	+	+	+
		80		+	+	+
		100			+	+
		120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Xylene	$C_6H_4(CH_3)_2$	144	technically pure	20	o/S	-	+	+
				40			+	+
				60			o	+
				80			-	o
				100				-
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Yeast			all, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	o	+	
				80			+	
				100				
				120				
Yeast wort			working concentration	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80				
				100				
				120				

Medium	Formula	Boiling Point [°C]	Concentration	[°C]	PE	PP	PVDF	ECTFE
Zinc salts			all, aqueous	20	+	+	+	
				40	+	+	+	
				60	+	+	+	
				80		+	+	
				100			+	
				120			+	