

Chemical resistance of common plastics used in valves.

The information in these tables is offered as a general guide only to the chemical resistance of commonly used materials in the construction of PLASTIC valves.

These tables are not to be used as an absolute recommendation as there are too many factors that can influence the corrosion resistance, such as temperature, temperature fluctuations, concentrations and solutions, velocity and abrasion. Allvalves Online Ltd therefore accept no responsibility for any problems arising from use of these tables. We recommend that if any doubt exists as to the resistance of a material to a specific chemical, that tests be carried out to verify the compatibility.

What the ratings mean:

Ratings are based on media at ambient/ room temperature unless otherwise stated.

- + EXCELLENT RESISTANCE - Material unaffected or insignificantly affected
- 0 CONDITIONAL RESISTANCE - Media can attack the material or cause swelling, pressure and/or temperature restrictions must be made and the serviceable life of the valve can be noticeably reduced.
- - DO NOT USE, NO RESISTANCE - can not be used at all.

Abbreviations for seal materials used in the tables:

Aggressive media				Chemical resistance											
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
					20	40	60	80	100	120	140				
Acetaldehyde	CH ₃ -CHO		40 %, aqueous solution	20	O	-	-	+	+	-	+	+	-	+	+
				40	-	-	-	+	+	-	+	+	-	+	+
				60	-	-	-	+	+	-	+	+	-	+	+
				80	-	-	-	+	+	-	+	+	-	+	+
				100	-	-	-	+	+	-	+	+	-	+	+
				120	-	-	-	+	+	-	+	+	-	+	+
				140	-	-	-	+	+	-	+	+	-	+	+
Acetaldehyde	CH ₃ -CHO	21	technically pure	20	-	-	-	+	+	-	+	+	-	-	+
				40	-	-	-	+	+	-	+	+	-	-	+
				60	-	-	-	+	+	-	+	+	-	-	+
				80	-	-	-	+	+	-	+	+	-	-	+
				100	-	-	-	+	+	-	+	+	-	-	+
				120	-	-	-	+	+	-	+	+	-	-	+
				140	-	-	-	+	+	-	+	+	-	-	+
Acetic acid	CH ₃ COOH		50 %, aqueous	20	+	+	-	+	+	+	+	O	-	O	O
				40	+	+	-	+	+	+	+	O	-	O	O
				60	O			+	+	+	+	O	-	O	O
				80				+	+	+	+	O	-	O	O
				100				+	+	+	+	O	-	O	O
				120				+	+	+	+	O	-	O	O
				140				+	+	+	+	O	-	O	O
Acetic acid	CH ₃ COOH	118	technically pure, glacial	20	O	-	-	+	+	+	+	-	-	O	O
				40	-	-	-	+	+	+	+	-	-	O	O
				60	-	-	-	+	+	+	+	-	-	O	O
				80	-	-	-	+	+	+	+	-	-	O	O
				100	-	-	-	+	+	+	+	-	-	O	O
				120	-	-	-	+	+	+	+	-	-	O	O
				140	-	-	-	+	+	+	+	-	-	O	O
Acetic acid anhydride	(CH ₃ -CO) ₂ O	139	technically pure	20	-	-	-	+	+	-	O	-	-	-	+
				40	-	-	-	+	+	-	O	-	-	-	+
				60	-	-	-	+	+	-	O	-	-	-	+
				80	-	-	-	+	+	-	O	-	-	-	+
				100	-	-	-	+	+	-	O	-	-	-	+
				120	-	-	-	+	+	-	O	-	-	-	+
				140	-	-	-	+	+	-	O	-	-	-	+
Acetic acid ethylester	CH ₃ COOC ₂ H ₅	77		20	-	-	-	+	+	+	+	O	O	O	O
				40	-	-	-	+	+	+	+	O	O	O	O
				60	-	-	-	+	+	+	+	O	O	O	O
				80	-	-	-	+	+	+	+	O	O	O	O
				100	-	-	-	+	+	+	+	O	O	O	O
				120	-	-	-	+	+	+	+	O	O	O	O
				140	-	-	-	+	+	+	+	O	O	O	O
Acetic acid isobutyl ester	(CH ₂) ₂ -CH-(CH ₂) ₂ -CO ₂ H	117	technically pure	20	-	-	-	+	+	+	+	-	-	-	+
				40	-	-	-	+	+	+	+	-	-	-	+
				60	-	-	-	+	+	+	+	-	-	-	+
				80	-	-	-	+	+	+	+	-	-	-	+
				100	-	-	-	+	+	+	+	-	-	-	+
				120	-	-	-	+	+	+	+	-	-	-	+
				140	-	-	-	+	+	+	+	-	-	-	+
Acetone	CH ₃ -CO-CH ₃		up to 10 %, aqueous	20	-	-	O	+	+	O	+	O	-	+	O
				40	-	-		+	+	O	+	O	-	+	O
				60	-	-		+	+	O	+	O	-	+	O
				80	-	-		+	+	O	+	O	-	+	O
				100	-	-		+	+	O	+	O	-	+	O
				120	-	-		+	+	O	+	O	-	+	O
				140	-	-		+	+	O	+	O	-	+	O
Acetone	CH ₃ -CO-CH ₃	56	technically pure	20	-	-	-	+	+	-	+	-	-	-	O
				40	-	-	-	+	+	-	+	-	-	-	O
				60	-	-	-	+	+	-	+	-	-	-	O
				80	-	-	-	+	+	-	+	-	-	-	O
				100	-	-	-	+	+	-	+	-	-	-	O
				120	-	-	-	+	+	-	+	-	-	-	O
				140	-	-	-	+	+	-	+	-	-	-	O

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Ammonium acetate	CH ₃ COONH ₄		aqueous, all	20	+	+	O	+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	O	+	
				60	O	+		+	+	+	+	+	O	+	O	+
				80		+				+	+	+	+	+		
				100							+	+				
				140												
Ammonium persulphate	(NH ₄) ₂ S ₂ O ₈			20	+	+		+	O	+	+	+	O	+		
				40	+	+				+	+	+				
				60	O	O				+	+	+				
				80		O				+	+	+				
				100							+					
				140												
Ammonium salts, aqueous, inorganic			saturated	20	+	+		+	+	+	+	+	+	+		
				40	+	+		+	+	+	+	+	+	+		
				60	+	+		+	+	+	+	+	+	+		
				80		+				+	+	+				
				100							+					
				140												
Amyl acetate	CH ₃ (CH ₂) ₄ -COOCH ₃	141	technically pure	20	-	-	-	+	O	+	O	-	-	-		
				40				+	O	O						
				60				+		O						
				80						O						
				100												
				140												
Amyl alcohol	CH ₃ (CH ₂) ₅ -CH ₂ -OH	137	technically pure	20	+	-	-	+	+	+	+	O	+	+		
				40	+			+	+	+	+	+	+			
				60	O			+	+	+	+	+	+			
				80					+	+	+	+	+			
				100						+	+	+	+			
				140								O				
Aniline	C ₆ H ₅ NH ₂	182	technically pure	20	-	-	-	+	+	+	+	O	-	-		
				40				O	+	+	+	O				
				60					O	-	+	O				
				80							+					
				100												
				140												
Antimony trichloride	SbCl ₃		90 %, aqueous	20	+	+	-	+	+	+	+	+	-	+		
				40	+	+		+	+	+	+	+				
				60		+		+	+	+	+	+				
				80												
				100												
				140												
Aqua regia	HNO ₃ +HCl		mixing ratio	20	+	+	-	-	-	O	-	O	-	-		
				40	O											
				60												
				80												
				100												
				140												
Arsenic acid	H ₃ AsO ₄		80 %, aqueous	20	+	+	+	+	+	+	+	+	+	+		
				40	+	+	+	+	+	+	+	+	+	+		
				60	O	+	+	+	+	+	+	+	+	+		
				80		+			+	+	+	+	+	+		
				100						+	+	+	+	+		
				140												

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Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
					Barium salts, aqueous, inorganic			saturated	20	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	+
				60	+	+	+	+	+	+	+	+	+	+	+
				80	+	+	+	+	+	+	+	+	+	+	+
				100	+	+	+	+	+	+	+	+	+	+	+
				120	+	+	+	+	+	+	+	+	+	+	+
				140	+	+	+	+	+	+	+	+	+	+	+
Beer			usual commercial	20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	+
				60	+	+	+	+	+	+	+	+	+	+	+
				80	+	+	+	+	+	+	+	+	+	+	+
				100	+	+	+	+	+	+	+	+	+	+	+
				120	+	+	+	+	+	+	+	+	+	+	+
				140	+	+	+	+	+	+	+	+	+	+	+
Benzaldehyde	C ₆ H ₅ -CHO	180	saturated, aqueous	20	-	-	-	+	+	+	+	+	0	-	-
				40	-	-	-	+	0	+	+	+	0	-	-
				60	-	-	-	0	+	+	+	+	+	-	-
				80	-	-	-	0	+	+	+	+	+	-	-
				100	-	-	-	0	+	+	+	+	+	-	-
				120	-	-	-	0	+	+	+	+	+	-	-
				140	-	-	-	0	+	+	+	+	+	-	-
Benzene	C ₆ H ₆	80	technically pure	20	-	-	-	0	0	+	-	+	0	-	-
				40	-	-	-	0	-	+	-	+	0	-	-
				60	-	-	-	0	-	+	-	+	0	-	-
				80	-	-	-	0	-	+	-	+	0	-	-
				100	-	-	-	0	-	+	-	+	0	-	-
				120	-	-	-	0	-	+	-	+	0	-	-
				140	-	-	-	0	-	+	-	+	0	-	-
Benzene sulfonic acid	C ₆ H ₅ SO ₃ H		technically pure	20	+	+		+	+	+	+	+			
				40	+	+		+	+	+	+	+			
				60	+	+		0	0	+	+	+			
				80	+	+		+	+	+	+	+			
				100	+	+		+	+	+	+	+			
				120	+	+		+	+	+	+	+			
				140	+	+		+	+	+	+	+			
Benzine (Gasoline)	C ₅ H ₁₂ to C ₁₂ H ₂₆	80-130	free of lead and aromatic compounds	20	+	+	-	+	0	+	-	+	+	-	0
				40	+	+	-	+	+	+	-	+	+	-	0
				60	+	+	-	+	+	+	-	+	+	-	0
				80	+	+	-	+	+	+	-	+	+	-	0
				100	+	+	-	+	+	+	-	+	+	-	0
				120	+	+	-	+	+	+	-	+	+	-	0
				140	+	+	-	+	+	+	-	+	+	-	0
Benzoic acid	C ₆ H ₅ -COOH	Fp., 122	aqueous, all	20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	+
				60	0	+	+	+	+	+	+	+	+	+	+
				80	0	0	+	+	+	+	+	+	+	+	+
				100	+	+	+	+	+	+	+	+	+	+	+
				120	+	+	+	+	+	+	+	+	+	+	+
				140	+	+	+	+	+	+	+	+	+	+	+
Benzyl alcohol	C ₆ H ₅ -CH ₂ -OH	206	technically pure	20	0	-	-	+	+	+	+	+	-	+	0
				40	0	-	-	+	+	+	+	+	-	+	0
				60	0	-	-	0	0	+	+	+	-	+	0
				80	0	-	-	+	+	+	+	+	-	+	0
				100	0	-	-	+	+	+	+	+	-	+	0
				120	0	-	-	+	+	+	+	+	-	+	0
				140	0	-	-	+	+	+	+	+	-	+	0
Beryllium salts, aqueous, inorganic				20	+	+		+	+	+	+	+	+	+	+
				40	+	+		+	+	+	+	+	+	+	+
				60	+	+		+	+	+	+	+	+	+	+
				80	+	+		+	+	+	+	+	+	+	+
				100	+	+		+	+	+	+	+	+	+	+
				120	+	+		+	+	+	+	+	+	+	+
				140	+	+		+	+	+	+	+	+	+	+

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Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
Calcium salts, aqueous, inorganic			≤ Saturated acid	20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	+
				60	+	+	+	+	+	+	+	+	+	+	+
				80	+	+	+	+	+	+	+	+	+	+	+
				100	+	+	+	+	+	+	+	+	+	+	+
Carbon dioxide	CO ₂		technically pure, anhydrous	20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	
				60	+	+	+	+	+	+	+	+	+	+	
				80	+	+	+	+	+	+	+	+	+	+	
				100	+	+	+	+	+	+	+	+	+	+	
Carbon tetrachloride	CCl ₄	77	technically pure	20	-	-	-	-	-	+	-	+	-	-	-
				40	-	-	-	-	-	-	-	-	-	-	
				60	-	-	-	-	-	-	-	-	-	-	
				80	-	-	-	-	-	-	-	-	-	-	
				100	-	-	-	-	-	-	-	-	-	-	
Carbonic acid	H ₂ CO ₃			20	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+		
				60	+	+	+	+	+	+	+	+	+		
				80	+	+	+	+	+	+	+	+	+		
				100	+	+	+	+	+	+	+	+	+		
Caro's acid	H ₂ SO ₅			20	+	O						+			
				40											
				60											
				80											
				100											
Caustic potash solution (potassium hydroxide)	KOH	131	50 %, aqueous	20	+	O		+	+	-	+	-	O	O	
				40	+			+	+		+				
				60	O			+	O		+				
				80								O			
				100											
Caustic soda solution	NaOH		50 %, aqueous	20	+	O		+	+	-	+	-	O	-	
				40	+			+	+		+				
				60	+			+	O		+				
				80											
				100											
Chloric acid	HClO ₃		10 %, aqueous	20	+	+	-	+	-	+	+	+	-	-	
				40	+	+		+		+	+	+			
				60	O	+				+	+				
				80											
				100											
Chloric acid	HClO ₃		20 %, aqueous	20	+	+	-	O	-	+	O	+	-	-	
				40	+	+					+	+			
				60	O	+					+				
				80											
				100											

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Aggressive media				Chemical resistance											
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
Butyl phenol, p-tertiary	(CH ₃) ₂ C-C ₆ H ₄ -OH	237	technically pure	20	O	O	-	O	+	+	-	O	-	-	-
				40	-	-	-	O	+	+	-	O	-	-	-
				60	-	-	-	O	+	+	-	O	-	-	-
				80	-	-	-	O	+	+	-	O	-	-	-
				100	-	-	-	O	+	+	-	O	-	-	-
				140	-	-	-	O	+	+	-	O	-	-	-
Butylene glycol	HO-CH ₂ -CH=CH-CH ₂ -OH	235	technically pure	20	+	+	-	+	+	+	+	+	-	+	O
				40	+	+	-	+	+	+	+	+	-	+	O
				60	O	+	-	+	+	+	+	O	+	+	O
				80	O	+	-	+	+	+	+	O	+	+	O
				100	O	+	-	+	+	+	+	O	+	+	O
				140	O	+	-	+	+	+	+	O	+	+	O
Butylene liquid	C ₄ H ₈	51	technically pure	20	+	-	-	-	+	O	+	+	+	+	O
				40	+	-	-	-	+	O	+	+	+	+	O
				60	+	-	-	-	+	O	+	+	+	+	O
				80	+	-	-	-	+	O	+	+	+	+	O
				100	+	-	-	-	+	O	+	+	+	+	O
				140	+	-	-	-	+	O	+	+	+	+	O
Butyric acid	CH ₃ -CH ₂ -CH ₂ -COOH	163	technically pure	20	+	+	-	+	+	+	O	O	-	O	O
				40	+	+	-	+	+	+	O	O	-	O	O
				60	+	+	-	+	+	+	O	O	-	O	O
				80	+	+	-	+	+	+	O	O	-	O	O
				100	+	+	-	+	+	+	O	O	-	O	O
				140	+	+	-	+	+	+	O	O	-	O	O
Cadmium salts, aqueous, inorganic	≤ saturated acid			20	+	+	-	+	+	+	+	+	-	+	+
				40	+	+	-	+	+	+	+	+	-	+	+
				60	+	+	-	+	+	+	+	+	-	+	+
				80	+	+	-	+	+	+	+	+	-	+	+
				100	+	+	-	+	+	+	+	+	-	+	+
				140	+	+	-	+	+	+	+	+	-	+	+
Caesium salts, aqueous, inorganic	≤ Saturated acid			20	+	+	-	+	+	+	+	+	+	+	+
				40	+	+	-	+	+	+	+	+	+	+	+
				60	+	+	-	+	+	+	+	+	+	+	+
				80	+	+	-	+	+	+	+	+	+	+	+
				100	+	+	-	+	+	+	+	+	+	+	+
				140	+	+	-	+	+	+	+	+	+	+	+
Calcium acetate	(CH ₃ COO) ₂ Ca		saturated	20	+	+	-	+	+	+	+	+	+	+	+
				40	+	+	-	+	+	+	+	+	+	+	
				60	+	+	-	+	+	+	+	+	+	+	
				80	+	+	-	+	+	+	+	+	+	+	
				100	+	+	-	+	+	+	+	+	+	+	
				140	+	+	-	+	+	+	+	+	+	+	
Calcium hydroxid	Ca(OH) ₂	100	saturated, aqueous	20	+	O	-	+	+	O	+	+	+	+	+
				40	+	O	-	+	+	O	+	+	+	+	+
				60	+	O	-	+	+	O	+	+	+	+	+
				80	+	O	-	+	+	O	+	+	+	+	+
				100	+	O	-	+	+	O	+	+	+	+	+
				140	+	O	-	+	+	O	+	+	+	+	+
Calcium lactate	(CH ₃ COO) ₂ Ca		saturated	20	+	+	-	+	+	+	+	+	+	+	+
				40	+	+	-	+	+	+	+	+	+	+	
				60	+	+	-	+	+	+	+	+	+	+	
				80	+	+	-	+	+	+	+	+	+	+	
				100	+	+	-	+	+	+	+	+	+	+	
				140	+	+	-	+	+	+	+	+	+	+	

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Aggressive media				Chemical resistance											
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
Calcium salts, aqueous, inorganic			≤ Saturated acid	20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	+
				60	+	+	+	+	+	+	+	+	+	+	+
				80	+	+	+	+	+	+	+	+	+	+	+
				100	+	+	+	+	+	+	+	+	+	+	+
Carbon dioxide	CO ₂		technically pure, anhydrous	20	+	+		+	+	+	+	+	+	+	+
				40	+	+		+	+	+	+	+	+	+	+
				60	+	+		+	+	+	+	+	+	+	+
				80	+	+		+	+	+	+	+	+	+	+
				100	+	+		+	+	+	+	+	+	+	+
Carbon tetrachloride	CCl ₄	77	technically pure	20	-	-	-	-	-	+	-	+	-	-	-
				40											
				60											
				80											
				100											
Carbonic acid	H ₂ CO ₃			20	+	+		+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+	
				60	+	+		+	+	+	+	+	+	+	
				80	+	+		+	+	+	+	+	+	+	
				100	+	+		+	+	+	+	+	+	+	
Caro's acid	H ₂ SO ₅			20	+	O				-		+			
				40											
				60											
				80											
				100											
Caustic potash solution (potassium hydroxide)	KOH	131	50 %, aqueous	20	+	O		+	+	-	+	-	O	O	
				40	+			+	+		+				
				60	O			+	O		+			O	
				80							+				
				100											
Caustic soda solution	NaOH		50 %, aqueous	20	+	O		+	+	-	+	-	O	-	
				40	+			+	+		+				
				60	+			+	O		+				
				80											
				100											
Chloric acid	HClO ₃		10 %, aqueous	20	+	+	-	+	-	+	+	+	-	-	
				40	+	+		+		+	+	+			
				60	O	+				+	+			+	
				80											
				100											
Chloric acid	HClO ₃		20 %, aqueous	20	+	+	-	O	-	+	O	+	-	-	
				40	+	+				O	+	+			
				60	O	+					+			+	
				80											
				100											

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Aggressive media					Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM		
Chlorine	Cl ₂		moist, 97 %, gaseous	20	-	+	-	-	-	-	-	+	-	-	0		
				40	-	+	-	-	-	-	-	-	+	-	-	0	
				60	-	+	-	-	-	-	-	-	-	+	-	-	0
				80	-	+	-	-	-	-	-	-	-	-	-	-	0
				100	-	+	-	-	-	-	-	-	-	-	-	-	0
Chlorine	Cl ₂		liquid, technically pure, as double pipe system	20	-	-	-	-	-	+	-	0	-	-	-		
				40	-	-	-	-	-	+	-	0	-	-	-		
				60	-	-	-	-	-	+	-	0	-	-	-		
				80	-	-	-	-	-	-	+	-	0	-	-	-	
				100	-	-	-	-	-	-	-	+	-	0	-	-	-
Chlorine	Cl ₂		anhydrous, technically pure, as double pipe system	20	-	-	-	0	-	+	0	+	-	-	0		
				40	-	-	-	0	-	+	0	+	-	-	0		
				60	-	-	-	0	-	+	0	+	-	-	0		
				80	-	-	-	0	-	+	0	+	-	-	0		
				100	-	-	-	0	-	+	0	+	-	-	0		
Chlorine water	Cl ₂ -H ₂ O		saturated	20	+	+	0	0	0	0	0	+	-	0	-		
				40	+	+	0	0	0	0	+	-	0	-			
				60	0	0	0	0	0	0	+	-	0	-			
				80	0	0	0	0	0	0	+	-	0	-			
				100	0	0	0	0	0	0	+	-	0	-			
Chloroacetic acid, mono	ClCH ₂ COOH		50 %, aqueous	20	+	-	-	+	+	+	0	-	-	-	0		
				40	+	-	-	+	+	+	0	-	-	-	0		
				60	+	-	-	0	0	-	0	-	-	-	0		
				80	+	-	-	0	0	-	0	-	-	-	0		
				100	+	-	-	0	0	-	0	-	-	-	0		
Chloroacetic acid, mono	ClCH ₂ COOH	188	technically pure	20	+	-	-	+	+	+	0	-	-	-	0		
				40	+	-	-	+	+	+	0	-	-	-	0		
				60	0	-	-	0	0	0	0	-	-	-	0		
				80	0	-	-	0	0	0	0	-	-	-	0		
				100	0	-	-	0	0	0	0	-	-	-	0		
Chlorobenzene	C ₆ H ₅ Cl	132	technically pure	20	-	-	-	0	0	+	-	-	-	-	0		
				40	-	-	-	0	0	+	-	-	-	-	0		
				60	-	-	-	0	0	+	-	-	-	-	0		
				80	-	-	-	0	0	+	-	-	-	-	0		
				100	-	-	-	0	0	+	-	-	-	-	0		
Chloroethanol	ClCH ₂ -CH ₂ OH	129	technically pure	20	-	-	-	+	+	+	0	-	-	-	0		
				40	-	-	-	+	+	+	0	-	-	-	0		
				60	-	-	-	+	+	+	0	-	-	-	0		
				80	-	-	-	+	+	+	0	-	-	-	0		
				100	-	-	-	+	+	+	0	-	-	-	0		
Chlorosulphonic acid	ClSO ₃ H	158	technically pure	20	0	-	-	-	-	0	-	-	-	-	-		
				40	0	-	-	-	-	0	-	-	-	-	-		
				60	0	-	-	-	-	0	-	-	-	-	-		
				80	0	-	-	-	-	0	-	-	-	-	-		
				100	0	-	-	-	-	0	-	-	-	-	-		

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Aggressive media				Chemical resistance											
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
Cyclohexanone	C ₆ H ₁₀ O	155	technically pure	20	-	-	-	O	O	O	O	-	-	-	-
				40	-	-	-	O	O	O	O	-	-	-	-
				60	-	-	-	O	O	O	O	-	-	-	-
				80	-	-	-	O	O	O	O	-	-	-	-
				100	-	-	-	O	O	O	O	-	-	-	-
				140	-	-	-	O	O	O	O	-	-	-	-
Dextrine	(C ₆ H ₁₀ O ₅) _n		usual commercial	20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	+
				60	+	+	+	+	+	+	+	+	+	+	+
				80	+	+	+	+	+	+	+	+	+	+	+
				100	+	+	+	+	+	+	+	+	+	+	+
				140	+	+	+	+	+	+	+	+	+	+	+
Di isobutyl ketone	[(CH ₂) ₂ CHCH ₂] ₂ CO	124	technically pure	20	-	-	-	+	+	+	O	-	-	-	-
				40	-	-	-	O	O	O	O	-	-	-	-
				60	-	-	-	O	O	O	O	-	-	-	-
				80	-	-	-	O	O	O	O	-	-	-	-
				100	-	-	-	O	O	O	O	-	-	-	-
				140	-	-	-	O	O	O	O	-	-	-	-
Dibromobenzene	C ₆ H ₄ Br ₂		≤ Saturated acid	20	-	-	-	O	O	+	O	+	-	-	-
				40	-	-	-	O	O	+	O	+	-	-	-
				60	-	-	-	O	O	+	O	+	-	-	-
				80	-	-	-	O	O	+	O	+	-	-	-
				100	-	-	-	O	O	+	O	+	-	-	-
				140	-	-	-	O	O	+	O	+	-	-	-
Dibutyl ether	C ₄ H ₉ OC ₄ H ₉	142	technically pure	20	-	-	-	O	O	+	-	+	+	-	O
				40	-	-	-	O	O	+	-	+	+	-	O
				60	-	-	-	O	O	+	-	+	+	-	O
				80	-	-	-	O	O	+	-	+	+	-	O
				100	-	-	-	O	O	+	-	+	+	-	O
				140	-	-	-	O	O	+	-	+	+	-	O
Dibutyl phthalate	C ₆ H ₄ (COOC ₄ H ₉) ₂	340	technically pure	20	-	-	-	+	+	+	O	O	-	-	-
				40	-	-	-	O	O	+	O	-	-	-	
				60	-	-	-	O	O	+	O	-	-	-	
				80	-	-	-	O	O	+	O	-	-	-	
				100	-	-	-	O	O	+	O	-	-	-	
				140	-	-	-	O	O	+	O	-	-	-	
Dichloroacetic acid	Cl ₂ CHCOOH		50 %, aqueous	20	+	-	-	+	+	+	+	O	-	+	O
				40	+	-	-	+	+	+	+	O	-	+	O
				60	O	-	-	O	O	+	+	-	-	+	O
				80	O	-	-	O	O	+	+	-	-	+	O
				100	O	-	-	O	O	+	+	-	-	+	O
				140	O	-	-	O	O	+	+	-	-	+	O
Dichloroacetic acid	Cl ₂ CHCOOH	194	technically pure	20	+	-	-	+	+	+	+	O	-	-	O
				40	+	-	-	+	+	+	+	O	-	-	O
				60	O	-	-	O	O	+	+	-	-	-	O
				80	O	-	-	O	O	+	+	-	-	-	O
				100	O	-	-	O	O	+	+	-	-	-	O
				140	O	-	-	O	O	+	+	-	-	-	O
Dichloroacetic acid methyl ester	Cl ₂ CHCOOCH ₃	143	technically pure	20	-	-	-	+	+	O	+	-	-	-	+
				40	-	-	-	+	+	O	+	-	-	-	+
				60	-	-	-	+	+	O	+	-	-	-	+
				80	-	-	-	+	+	O	+	-	-	-	+
				100	-	-	-	+	+	O	+	-	-	-	+
				140	-	-	-	+	+	O	+	-	-	-	+

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Aggressive media				Chemical resistance											
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
					Dichlorobenzene	$C_6H_4Cl_2$	180	technically pure	20	-	-	-	O	O	+
				40											
				60											
				80											
				100											
				120											
				140											
Dichloroethylene	$ClCH=CHCl$	60	technically pure	20	-	-	-	-	-	+	-	O	-	-	-
				40											
				60											
				80											
				100											
				120											
				140											
Diesel oil				20	+	+	-	+	O	+	-	+	+	O	O
				40	+	+				+		+	+		.
				60											
				80											
				100											
				120											
				140											
Diethyl ether	$H_3C_2-O-C_2H_5$	35		20	-	-	-	-	-	-	-	-	-	-	-
				40											
				60											
				80											
				100											
				120											
				140											
Diethylamine	$(C_2H_5)_2NH$	56	technically pure	20	-	-	+	+	+	O	-	-	-	-	-
				40											
				60											
				80											
				100											
				120											
				140											
Dimethyl formamide	$(CH_3)_2CHNO$	153	technically pure	20	-	-	-	+	+	-	O	-	O	+	+
				40				+	+						
				60				O	+						
				80											
				100											
				120											
				140											
Dimethylamine	$(CH_3)_2NH$	7	technically pure	20	-	-	-	+	-	-	O	-	-	-	-
				40											
				60											
				80											
				100											
				120											
				140											
Dioxane	$C_4H_8O_2$	101	technically pure	20	-	-	-	+	O	-	O	-	O	-	-
				40				+							
				60				+	O						
				80											
				100											
				120											
				140											
Ethanolamine	C_2H_7NO			20	-	-	-	+	+	O	+	O	O	O	O
				40											
				60											
				80											
				100											
				120											
				140											

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Fluorosilicic acid	H ₂ SiF ₆		32 %, aqueous	20	+	+		+	+	+	+	0				
				40	+	+		+	+	+						
				60	+	0		+	+	+						
				80												
				100												
				140												
Formaldehyde	HCHO		40 %, aqueous	20	+	+		+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+	+	
				60				+	+	+	+	+	0	+	+	+
				80							+					
				100												
				140												
Formamide	HCONH ₂	210	technically pure	20	-	-	-	+	+		+	0	+	+		
				40				+	+							
				60				+	+							
				80												
				100												
				140												
Formic acid	HCOOH		≤ 25 %	20	+	+		+	+	+	+	+				
				40	+	+		+	+	+	+					
				60	+	+		+	+	+	+					
				80				+	+	+						
				100												
				140												
Formic acid	HCOOH		up to 50 %, aqueous	20	+	-	0	+	+	+	+	+	-	+	+	
				40	+			+	+	+	+	+		+	+	
				60	0			+	0	+	0	0		0	+	
				80						+	+	-			0	
				100						+						
				140												
Formic acid	HCOOH	101	technically pure	20	+	-	-	+	+	+	+	+	-	+	+	
				40	0			+	0	+	+		0	+		
				60	-			+	-	+	0		-	+		
				80						+	0			0		
				100						+						
				140												
Frigen 12 (Freon 12)	CCl ₂ F ₂	-30	technically pure	20	+	-	-	-	-	0	0	0	0	+	0	
				40												
				60												
				80												
				100												
				140												
Fuel oil				20	+	+	-	+	0	+	-	+	+	0	0	
				40	+	+			-	+		+	+		-	
				60												
				80												
				100												
				140												
Furfuryl alcohol	C ₅ H ₆ O ₂	171	technically pure	20	-	-	-	+	+	+	0	-	-	0	0	
				40				+	+	+						
				60				+	0	0						
				80												
				100												
				140												

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Fluorosilicic acid	H ₂ SiF ₆		32 %, aqueous	20	+	+		+	+	+	+	0				
				40	+	+		+	+	+						
				60	+	0		+	+	+						
				80												
				100												
				140												
Formaldehyde	HCHO		40 %, aqueous	20	+	+		+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+	+	
				60				+	+	+	+	+	0	+	+	+
				80							+					
				100												
				140												
Formamide	HCONH ₂	210	technically pure	20	-	-	-	+	+		+	0	+	+		
				40				+	+							
				60				+	+							
				80												
				100												
				140												
Formic acid	HCOOH		≤ 25 %	20	+	+		+	+	+	+	+				
				40	+	+		+	+	+	+					
				60	+	+		+	+	+	+					
				80				+	+	+						
				100												
				140												
Formic acid	HCOOH		up to 50 %, aqueous	20	+	-	0	+	+	+	+	+	-	+	+	
				40	+			+	+	+	+	+		+	+	
				60	0			+	0	+	0	0		0	+	
				80						+					0	
				100						+						
				140												
Formic acid	HCOOH	101	technically pure	20	+	-	-	+	+	+	+	+	-	+	+	
				40	0			+	0	+	+		0	+		
				60	-			+	-	+	0		-	+		
				80						+	0			0		
				100						+						
				140												
Frigen 12 (Freon 12)	CCl ₂ F ₂	-30	technically pure	20	+	-	-	-	-	0	0	0	0	+	0	
				40												
				60												
				80												
				100												
				140												
Fuel oil				20	+	+	-	+	0	+	-	+	+	0	0	
				40	+	+			-	+		+	+		-	
				60												
				80												
				100												
				140												
Furfuryl alcohol	C ₅ H ₆ O ₂	171	technically pure	20	-	-	-	+	+	+	0	-	-	0	0	
				40				+	+	+						
				60				+	0	0						
				80												
				100												
				140												

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Hydrochloric acid	HCl		38 %, aqueous	20	+	+	-	+	0	+	+	+	-	-	+	
				40	+	+		+			+	+				
				60	+	+						+	+			
				80		0						+				
				100								+				
Hydrocyanic acid	HCN	26	technically pure	20	+	+	-	+	+	+	+	+	0	0	+	
				40	+	+		+	+	+	+	+				
				60	0	+		+	+	+	+	+	0	0		
				80								+				
				100												
Hydrofluoric acid	HF		40 %	20	+	-	-	+	+	+	-	+	-	-	+	
				40	0			+	+	+	+	+				
				60	0			0	+	+	+	0				
				80								+				
				100								+				
Hydrogen	H ₂	-25 3	technically pure	20	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+	+		
				60	+	+	+	+	+	+	+	+	+	+		
				80		+										
				100				-				+				
Hydrogen chloride	HCl	-85	technically pure, gaseous	20	+	+	-	+	+	+	+	+	0	0	0	
				40	+	+		+	+	+	+	+				
				60	0	+		+	+	+	+	+				
				80		0						+				
				100								+				
Hydrogen peroxide	H ₂ O ₂	105	30 %, aqueous	20	+	+	-	+	+	0	0	+	-	-	+	
				40												
				60												
				80												
				100												
Hydrogen peroxide	H ₂ O ₂	139	90 %, aqueous	20	+	-	-	0			-	0	-	-	0	
				40												
				60												
				80												
				100												
Hydrogen sulphide	H ₂ S		saturated, aqueous	20	+	+		+	+	+	+	+	-	+	+	
				40	+	+		+	+	+	+	+				
				60	0	+		+	+	+	+	+				
				80								+				
				100								+				
Hydrogen sulphide	H ₂ S		technically pure	20	+	+		+	+	+	+	+	0	0	+	
				40	+	+		+	+	+	+	+				
				60	+	+		0	+	+	+	+	0	0	+	
				80								+				
				100								+				

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Hydroquinone	<chem>C6H4(OH)2</chem>		30 %	20	+	+		++	+		+					
				40	+	+		++	+							
				60						++	+					
				80						++	+					
				100							+					
Iodine-potassium iodide solution (Lugol's solution)	I-KI			20	+	-	-	+	+	+	+	+		O	O	
				40												
				60												
				80												
				100												
Iron salts, aqueous, inorganic			≤ Saturated acid	20	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+		
				60	+	+		+	+	+	+	+	+	+		
				80		+		+	+	+	+	+	+	+		
				100					+	+	+	+	+	+		
Isooctane	<chem>(CH3)2-C-CH2-CH-(CH3)2</chem>	99	technically pure	20	+	+	-	+	+	+		+	+	+	O	
				40												
				60												
				80												
				100												
Isopropyl alcohol (ESC)	<chem>(CH3)2-CH-OH</chem>	82	technically pure	20	+	-		+	+	+	+	+	+	+	+	
				40	+			+	+	+	+	+	+	+		
				60	O			O	O	+	+	+	+	+		
				80						O						
				100												
Isopropyl ether	<chem>(CH3)2-CH-O-CH-(CH3)2</chem>	68	technically pure	20	-	-	-	O	O	+	O	-	-	-	-	
				40												
				60												
				80												
				100												
Lactic acid	<chem>CH3CHOHCOOH</chem>		10 %, aqueous	20	+	+	+	+	+	+	+	+	-	-	O	
				40	O	+	+	+	+	+	+	+	+	+	O	
				60	-	+	-	+	+	+	+	+	+	+	O	
				80		+		+	+	+	+	+	+	+	O	
				100												
Lead acetate	<chem>Pb(CH3COO)2</chem>		aqueous, saturated	20	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+	+		
				60	+	+	+	+	+	+	+	+	+	+		
				80		+		+	+	+	+	+	+	+		
				100					+	+	+	+	+	+		
Lead salts, aqueous, inorganic			≤ Saturated acid	20	+	+		+	+	+	+	+	+	+		
				40	+	+		+	+	+	+	+	+	+		
				60	+	+		+	+	+	+	+	+	+		
				80		+		+	+	+	+	+	+	+		
				100					+	+	+	+	+	+		

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Aggressive media				Chemical resistance														
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM			
Linseed oil			technically pure	20	+			++	++	+	+	+	+	+	+			
				40	+			++	++	+	+	+	+	+	+	+		
				60	O					+	+	+	+	+	+	+	+	
				80						+	+	+	+	+	+	+	+	
				100							+	+	+	+	+	+	+	
Lithium salts, aqueous, inorganic			≤ Saturated acid	20	+	+		+	+	+	+	+	+	+	+			
				40	+	+		+	+	+	+	+	+	+	+	+		
				60	+	+		+	+	+	+	+	+	+	+	+	+	
				80		+				+	+	+	+	+	+	+	+	
				100							+	+	+	+	+	+	+	
Magnesium salts, aqueous, inorganic			≤ Saturated acid	20	+	+		+	+	+	+	+	+	+	+			
				40	+	+		+	+	+	+	+	+	+	+	+		
				60	O	+		+	+	+	+	+	+	+	+	+	+	
				80		+				+	+	+	+	+	+	+	+	
				100							+	+	+	+	+	+	+	
Maleic acid	(CH-COOH) ₂	Fp., 131	cold saturated, aqueous	20	+	+		+	+	+	+	+	-	-	-			
				40	+	+		+	+	+	+	+	-	-	-			
				60	O			+	+	+	+	+	-	-	-			
				80						+	+	+	+	-	-	-		
				100							+	+	+	+	-	-	-	
Mercury	Hg	357	pure	20	+	+	+	+	+	+	+	+	+	+	+			
				40	+	+		+	+	+	+	+	+	+	+	+		
				60	+			+	+	+	+	+	+	+	+	+	+	
				80						+	+	+	+	+	+	+	+	
				100							+	+	+	+	+	+	+	
Mercury salts			≤ saturated	20	+	+		+	+	+	+	+	OO	OO	OO			
				40	+	+		+	+	+	+	+	OO	OO	OO			
				60	O	+		+	+	+	+	+	+	OO	OO	OO		
				80						+	+	+	+	+	OO	OO	OO	
				100							+	+	+	+	+	OO	OO	OO
Methane (natural gas)	CH ₄	-16 1	technically pure	20	+	+	+	+	+	+	+	+	+	-	-			
				40	+	+	+	+	+	+	+	+	+	-	-			
				60														
				80														
				100														
Methanol	CH ₃ OH	65	all	20	+	-	-	+	+	+	+	O	+	+	+			
				40	+			+	+	+	+	+	+	+	+	+		
				60	O			+	+	+	+	+	+	+	+	+		
				80														
				100														
Methyl acetate	CH ₃ COOCH ₃	56	technically pure	20	-	-	-	+	+	+	+	-	-	-	-			
				40														
				60														
				80														
				100														

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Aggressive media				Chemical resistance													
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM		
Mixed acids - sulphuric - nitric - water	H ₂ SO ₄ HNO ₃ H ₂ O		10 %	20	+	+	-	+	-	+	-	+	-	O	O		
			20 %	40	+	+	-	+	-	+	-	+	-	O	O		
			70 %	60	+	+	-	+	-	+	-	+	-	O	O		
				80													
				100													
Mixed acids - sulphuric - nitric - water	H ₂ SO ₄ HNO ₃ H ₂ O		50 %	20	+	+	-	-	-	+	-	+	-	-	O		
			33 %	40	O	+	-	-	-	+	-	+	-	-	O		
			17 %	60													
				80													
				100													
Mixed acids - sulphuric - nitric - water	H ₂ SO ₄ HNO ₃ H ₂ O		50 %	20	+	O	-	-	-	+	-	+	-	O	O		
			31 %	40													
			19 %	60													
				80													
				100													
Mixed acids - sulphuric - nitric - water	H ₂ SO ₄ HNO ₃ H ₂ O		10 %	20	-	-	-	-	-	O	-	-	-	-	-		
			87 %	40													
			43 %	60													
				80													
				100													
Mixed acids - sulphuric - nitric - water	H ₂ SO ₄ HNO ₃ H ₂ O		48 %	20	+	+	-	-	-	+	-	+	-	-	-		
			49 %	40	O	+	-	-	-	+	-	+	-	-	-		
			43 %	60	-	-	-	-	-	+	-	+	-	-	-		
				80													
				100													
Mixed acids - sulphuric - phosphoric - phosphoric	H ₂ SO ₄ H ₃ PO ₄ H ₂ O		30 %	20	+	+	-	+	+	+	+	+	-	O	O		
			60 %	40	+	+	-	+	+	+	+	+	-	O	O		
			10 %	60													
				80													
				100													
N,N-Dimethylaniline	C ₉ H ₉ N(CH ₃) ₂	194	technically pure	20	-	-	-	+	+		+						
				40													
				60													
				80													
				100													
N-Methylpyrrolidon	C ₅ H ₉ NO	204		20	-	-	-	+	+	O	+	O					
				40													
				60													
				80													
				100													
Naphthalene	C ₁₀ H ₈	218	technically pure	20	-	-		+	+	+	-	+	+	-	O		
				40													
				60													
				80													
				100													

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Nickel salts, aqueous, inorganic			≤ Saturated acid	20	+	+		+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+	+	
				60	O	+		+	+	+	+	+	+	+	+	+
				80								+	+	+		
				100								+	+	+		
				120												
				140												
Nitrating acid	H ₂ SO ₄ HNO ₃ H ₂ O		65 % 20 % 15 %	20	+	O		-	-	+	-	+	-	-	-	
				40	O											
				60												
				80												
				100												
				120												
				140												
Nitric acid	HNO ₃		6.3 %, aqueous	20	+	+		+	+	+	+	+	-	-	+	
				40	+	+		+	+	+	O	+	-	-	+	
				60	+	+		+	+	+	+	+	+	-	-	+
				80		+					+	+	O			+
				100												
				120												
				140												
Nitric acid	HNO ₃		≤ 25 %	20	+	+	-	+	+	+	+	+	-	-	+	
				40	+	+		+	O	+	+	+	-	-	+	
				60	+	+		+	O	+	+	+	-	-	+	
				80												
				100												
				120												
				140												
Nitric acid	HNO ₃		65 %, aqueous	20	O	+	-	O	-	+	-	+	-	-	O	
				40	O	+		-	-	+	+	+	O	-	-	O
				60	-					+	+	+	-	-	-	O
				80								O				
				100								-				
				120												
				140												
Nitric acid	HNO ₃		85 %	20	-	-	-	-	-	+	-	+	-	-	-	
				40												
				60												
				80												
				100												
				120												
				140												
Nitrobenzene	C ₆ H ₅ -NO ₂	209	technically pure	20	-	-	-	+	+	+	O	+	-	-	-	
				40												
				60												
				80												
				100												
				120												
				140												
Nitrotoluene (o-, m-, p-)	C ₇ H ₇ NO ₂	222 - 238	technically pure	20	-	-	-	+	O	+	-	O	-	-	-	
				40												
				60												
				80												
				100												
				120												
				140												

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Nitrous acid	HNO ₂			20	+	+	-	+	-	++	+	+				
				40	+	+				+++						
				60												
				80												
				100												
Nitrous gases (Nitric oxide)	NO _x		diluted, moist, anhydrous	20	+	+	-	O	O	+	O	+	O	+	+	
				40												
				60												
				80												
				100												
Oleic acid	C ₁₇ H ₃₃ COOH		technically pure	20	+	O	-	+	+	+	-		O	-	-	
				40	+			+	+	+		O				
				60	+			O	O	+						
				80												
				100												
Oleum	H ₂ SO ₄ +SO ₃		10 % SO ₃	20	-	-	-	-	-	-	-	-	-	-	-	
				40												
				60												
				80												
				100												
Olive oil				20	+	-	-	+	+	+	-	+	+	+	+	
				40	+			+	+	+		+	+	+	+	
				60	+			O	+	+		+	+	+	+	
				80					+	+		+	+	+	+	
				100												
Oxygen	O ₂		technically pure	20	+	+		+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+	+	
				60	+	+		O	O	+	+	+	+	+	+	
				80					+	+	+	+	+	+	+	
				100						O	O	+	+	+	+	
Ozone	O ₃		up to 2 %, in air	20	+	O	-	O	O	O	O	+	-	O	+	
				40												
				60												
				80												
				100												
Ozone	O ₃		cold saturated, aqueous	20	+	O	-	O	O	O	-	+	-	O	+	
				40												
				60												
				80												
				100												
Palm oil, palm nut oil				20	+	O		+	+	+	-	+	+	+	O	
				40												
				60												
				80												
				100												

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Aggressive media				Chemical resistance													
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM		
Paraffin emulsions			usual commercial, aqueous	20	+	+		+	+	+	-	+	+	+	+		
				40	+	+		+	+	+	-	+	+	+	+		
				60													
				80													
				100													
				140													
Paraffin oil				20	+	+	O	+	+	+	-	+	+	+	O		
				40	+	+		+	+	+	-	+	+	+	O		
				60													
				80													
				100													
				140													
Perchlorid acid	HClO ₄		10 %, aqueous	20	+	+		+	+	+	+	+	-	-	+		
				40	+	+		+	+	+	+	+	-	-	+		
				60													
				80													
				100													
				140													
Perchlorid acid	HClO ₄		70 %, aqueous	20	+	-	-	-	-	O	-	+	-	-	+		
				40	+	-	-	-	-	O	-	+	-	-	+		
				60													
				80													
				100													
				140													
Perchloro-ethylene (Tetrachlorethylene)	Cl ₂ C=CCl ₂	121	technically pure	20	-	-		O	O	+	-	+	-	-	-		
				40						+	+	+	+	-	-		
				60													
				80													
				100													
				140													
Phenol	C ₆ H ₅ -OH	182	up to 10 %, aqueous	20	+	O	-	+	+	+	+	+	-	-	-		
				40	O	O		+	+	+	+	+	+	-	-		
				60													
				80													
				100													
				140													
Phenol	C ₆ H ₅ -OH		up to 90 %, aqueous	20	O	-	-	+	+	+	-	+	-	-	-		
				40				+	+	+	-	+	-	-	-		
				60				O	+	+							
				80													
				100													
				140													
Phosgene	COCl ₂		gaseous, technically pure	20	+	-	-	O	O	+	+	+	+	+	+		
				40	O					+	+	+	+	+	+		
				60	O												
				80													
				100													
				140													
Phosgene	COCl ₂	8	liquid, technically pure	20	-	-	-	-	-	-	-	+	O	+	+		
				40													
				60													
				80													
				100													
				140													

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Phosphoric acid	H ₃ PO ₄		85 %, aqueous	20	+	+		+	+	+	+	+				
				40	+	+		+	+	+	+	+				
				60	+	+		+	+	+	+	+	+			
				80	+	+		+	+	+	+	+	+			
				100	+	+		+	+	+	+	+	+			
Phosphoric acid	H ₃ PO ₄		up to 95 %	20	+	+	-	+	+	+	+	+				
				40	+	+		+	+	+	+	+				
				60	+	+		+	+	+	+	+	+			
				80	+	+		+	+	+	+	+	+			
				100	+	+		+	+	+	+	+	+			
Phosphorous chlorides: - ...trichloride - ...pentachloride - ...oxichloride	PCl ₃ PCl ₅ POCl ₃	175 162 105	technically pure	20	-	-	-	-	-	-	-	-	-	-	-	
				40	-	-	-	-	-	-	-	-	-	-	-	
				60	-	-	-	-	-	-	-	-	-	-	-	
				80	-	-	-	-	-	-	-	-	-	-	-	
				100	-	-	-	-	-	-	-	-	-	-	-	
Photographic developer			usual commercial	20	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+	+	+	
				60	+	+	+	+	+	+	+	+	+	+	+	
				80	+	+	+	+	+	+	+	+	+	+	+	
				100	+	+	+	+	+	+	+	+	+	+	+	
Photographic emulsions			usual commercial	20	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+	+	+	
				60	+	+	+	+	+	+	+	+	+	+	+	
				80	+	+	+	+	+	+	+	+	+	+	+	
				100	+	+	+	+	+	+	+	+	+	+	+	
Photographic fixer			usual commercial	20	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+	+	+	
				60	+	+	+	+	+	+	+	+	+	+	+	
				80	+	+	+	+	+	+	+	+	+	+	+	
				100	+	+	+	+	+	+	+	+	+	+	+	
Phthalic acid	C ₈ H ₆ (COOH) ₂	Fp., 208	saturated, aqueous	20	+	-	-	+	+	+	+	+	+	+	+	
				40	+	-	-	+	+	+	+	+	+	+	+	
				60	+	-	-	+	+	+	+	+	+	+	+	
				80	+	-	-	+	+	+	+	+	+	+	+	
				100	+	-	-	+	+	+	+	+	+	+	+	
Potassicim hydroxide	KOH		50 %	20	+	+		+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+	+	
				60	+	+		+	+	+	+	+	+	+	+	
				80	+	+		+	+	+	+	+	+	+	+	
				100	+	+		+	+	+	+	+	+	+	+	
Potassium aluminium salts (alum), aqueous, inorganic	KAl(SO ₄) ₂		≤ Saturated acid	20	+	+		+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+	+	
				60	+	+		+	+	+	+	+	+	+	+	
				80	+	+		+	+	+	+	+	+	+	+	
				100	+	+		+	+	+	+	+	+	+	+	

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Aggressive media				Chemical resistance											
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
					Potassium persulphate (Potassium Peroxidsulfate)	K ₂ S ₂ O ₈		all, aqueous	20	+	+		+	+	+
				40	+	+		+	+	+	+	+			
				60	O	+		+	+	+	+	+			
				80											
				100											
				120											
				140											
Potassium-hypochlorite	KOCl			20	+	O		O	O	O	+	O	O	O	O
				40	O										
				60											
				80											
				100											
				120											
				140											
Propane	H ₃ C-CH ₂ -CH ₃		technically pure, gaseous	20	+	+		O	+	+		+	O	O	O
				40											
				60											
				80											
				100											
				120											
				140											
Propane	H ₃ C-CH ₂ -CH ₃	-42	technically pure, liquid	20	+	-		+	+	+		+	O	O	O
				40											
				60											
				80											
				100											
				120											
				140											
Propanol, n- and iso-	C ₃ H ₇ OH	97 bzw . 82	technically pure	20	+	-		+	+	+	+	+	+	+	+
				40	O			+	+	+	+	+			
				60	O			O	O	+	O				
				80						+					
				100											
				120											
				140											
Propionic acid	CH ₃ CH ₂ COOH	141	50 %, aqueous	20	+	O	-	+	+	+	+	O	-	O	O
				40	+			+	+	+	+				
				60	O			+	+	+					
				80											
				100											
				120											
				140											
Propionic acid	H ₃ C-CH ₂ -COOH	141	technically pure	20	+	O	-	+	+	+	+	+	-	-	-
				40	O			O	O	+	O	+			
				60				O	O	+	+	+			
				80						+		+			
				100							+	+			
				120											
				140											
Propylene glycol	C ₃ H ₈ O ₂		< 50 %	20	+	-		+	+	+	+	+	+	+	+
				40	+			+	+	+	+	+			
				60	+			+	+	+	+	O			
				80											
				100											
				120											
				140											
Propylene glycol	C ₃ H ₈ O ₂	188	technically pure	20	+	+	+	+	+	+	+	+	+	+	+
				40	+			+	+	+	+	+	+	+	+
				60	+			+	+	+	+	+	+	+	+
				80					+	+	+	+			
				100						+		O			
				120											
				140											

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FFM	NBR	CR	CSM	
Pyridine	C ₅ H ₅ N	115	technically pure	20	-	-	-	O	O	-	O	-	-	-	-	
				40	-	-	-	O	O	-	O	-	-	-	-	
				60	-	-	-	O	O	-	O	-	O	-	-	-
				80	-	-	-	O	O	-	O	-	O	-	-	-
				100	-	-	-	O	O	-	O	-	O	-	-	-
Salicylic acid	C ₆ H ₄ (OH)COOH		saturated	20	+	+		+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+	+	
				60	+	+		+	+	+	+	+	+	+	+	
				80	+	+		+	+	+	+	+	+	+	+	
				100	+	+		+	+	+	+	+	+	+	+	
Sea water				20	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+	+	+	
				60	O	+	+	+	+	+	+	+	+	+	+	
				80	O	+	+	+	+	+	+	+	+	+	+	
				100	O	+	+	+	+	+	+	+	+	+	+	
Silicic acid	Si(OH) ₄			20	+	+		+	+	+	+	+	-	+	+	
				40	+	+		+	+	+	+	+	-	+	+	
				60	+	+		+	+	+	+	+	-	+	+	
				80	+	+		+	+	+	+	+	-	+	+	
				100	+	+		+	+	+	+	+	-	+	+	
Silicone oil				20	+	+	+	+	+	+	+	+	+	+	+	
				40	O	+	+	+	+	+	+	+	+	+	+	
				60	-	+	+	+	+	+	+	+	+	+	+	
				80	-	+	+	+	+	+	+	+	+	+	+	
				100	-	+	+	+	+	+	+	+	+	+	+	
Silver salts, aqueous, inorganic			≤ Saturated acid	20	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+	+	+	
				60	+	+	+	+	+	+	+	+	+	+	+	
				80	+	+	+	+	+	+	+	+	+	+	+	
				100	+	+	+	+	+	+	+	+	+	+	+	
Sodium chlorite	NaClO ₂		diluted, aqueous	20	+	O		O	O	O	O	+	-	O	+	
				40	+	O		O	O	O	O	+	-	O	+	
				60	+	O		O	O	O	O	+	-	O	+	
				80	+	O		O	O	O	O	+	-	O	+	
				100	+	O		O	O	O	O	+	-	O	+	
Sodium hypochlorite	NaOCl		12.5 % active chlorine, aqueous	20	+	O	-	O	O	O	+	O	-	-	+	
				40	+	O	-	O	O	O	+	O	-	-	+	
				60	+	O	-	O	O	O	+	O	-	-	+	
				80	+	O	-	O	O	O	+	O	-	-	+	
				100	+	O	-	O	O	O	+	O	-	-	+	
Sodium persulphate	Na ₂ S ₂ O ₈		cold saturated, aqueous	20	+	+		+	+	+	+	+	-	+	+	
				40	+	+		+	+	+	+	+	-	+	+	
				60	O	+		+	+	+	+	+	-	+	+	
				80	O	+		+	+	+	+	+	-	+	+	
				100	O	+		+	+	+	+	+	-	+	+	

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Sodium salts, aqueous, inorganic			≤ Saturated acid	20	+	+		+	+	+	+	+	+	+	+	
				40	+	+		+	+	+	+	+	+	+	+	
				60	+	+		+	+	+	+	+	+	+	+	
				80												
				100												
				140												
Stannous chloride	SnCl ₂		cold saturated, aqueous	20	+	+	+	+	+	+	+	+	+	+	+	
				40	O	+	+	+	+	+	+	+	+	+	+	
				60	O	O		+	+	+	+	+	+	+	+	
				80												
				100												
				140												
Starch solution	(C ₅ H ₁₀ O ₅) _n		all, aqueous	20	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+	+		
				60	+	+		+	+	+	+	+	+	+		
				80		+										
				100												
				140												
Styrene	H ₂ C=CH=CH ₂	145		20	-	-	-			+		+				
				40												
				60												
				80												
				100												
				140												
Succinic acid	HOOC-CH ₂ -CH ₂ -COOH	Fp., 185	aqueous, all	20	+	+	+	+	+	+	+	+	+	+		
				40	+	+		+	+	+	+	+	+	+		
				60	+	+		+	+	+	+	+	+	+		
				80												
				100												
				140												
Sulfurous acid	H ₂ SO ₃		saturated, aqueous	20	+	+		+	+	+	+	+	-	-		
				40	+	+		+	+	+	+	+	-	-		
				60	O			+	+	+	+	+	-	-		
				80												
				100												
				140												
Sulfuryl chloride	SO ₂ Cl ₂	69	technically pure	20	-	-	-	-	-	O	+	-	O	+		
				40												
				60												
				80												
				100												
				140												
Sulphur dioxide	SO ₂		technically pure, liquid	20	-	-	-	-	-	-	-	O	-	O		
				40												
				60												
				80												
				100												
				140												
Sulphur dioxide	SO ₂		all, moist	20	+	+	-	+	+	+	+	-	-	O		
				40	+	+		+	+	+	+	+	-	O		
				60	O			+	+	+	+	+	-	O		
				80												
				100												
				140												

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Aggressive media				Chemical resistance												
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM	
Sulphuric acid	H ₂ SO ₄	195	up to 80 %, aqueous	20	+	+	-	+	+	+	○	+	-	-	+	
				40	+	+	-	+	+	+	○	+	-	-	+	
				60	+	+	-	○	+	+	○	+	-	-	+	
				80	+	+	-	+	+	+	+	○	+	-	-	+
				100	+	+	-	+	+	+	+	○	+	-	-	+
Sulphuric acid	H ₂ SO ₄	340	96 %, aqueous	20	+	+	-	-	-	-	-	+	-	-	-	
				40	+	+	-	-	-	-	+	-	-	-	-	
				60	○	+	-	-	-	-	+	-	-	-	-	
				80	○	+	-	-	-	-	+	-	-	-	-	
				100	○	+	-	-	-	-	+	-	-	-	-	
Sulphuric acid	H ₂ SO ₄	340	98 %	20	+	+	-	-	-	-	-	○	-	-	-	
				40	○	+	-	-	-	-	○	-	-	-	-	
				60	○	+	-	-	-	-	○	-	-	-	-	
				80	○	+	-	-	-	-	○	-	-	-	-	
				100	○	+	-	-	-	-	○	-	-	-	-	
Tannic acid			all, aqueous	20	+	+	-	+	+	+	+	+	+	+	+	
				40	+	+	-	+	+	+	+	+	+	+	+	
				60	+	+	-	+	+	+	+	+	+	+	+	
				80	+	+	-	+	+	+	+	+	+	+	+	
				100	+	+	-	+	+	+	+	+	+	+	+	
Tetrachlorethylene Perchloroethylene	Cl ₂ C-CCl ₂	121		20	-	-	-	-	-	+	-	+	-	-	-	
				40	-	-	-	-	-	+	-	+	-	-	-	
				60	-	-	-	-	-	+	-	+	-	-	-	
				80	-	-	-	-	-	+	-	+	-	-	-	
				100	-	-	-	-	-	+	-	+	-	-	-	
Tetrachloroethane	Cl ₂ CH-CHCl ₂	146	technically pure	20	-	-	-	○	○	+	-	○	-	-	-	
				40	-	-	-	○	○	+	-	○	-	-	-	
				60	-	-	-	○	○	+	-	○	-	-	-	
				80	-	-	-	○	○	+	-	○	-	-	-	
				100	-	-	-	○	○	+	-	○	-	-	-	
Tetraethylene lead	(C ₂ H ₅) ₄ Pb		technically pure	20	+	+	-	+	+	+	○	+	+	○	+	
				40	+	+	-	+	+	+	○	+	+	○	+	
				60	+	+	-	+	+	+	○	+	+	○	+	
				80	+	+	-	+	+	+	○	+	+	○	+	
				100	+	+	-	+	+	+	○	+	+	○	+	
Tetrahydrofurane	C ₄ H ₈ O	66	technically pure	20	-	-	-	○	○	-	○	-	-	-	-	
				40	-	-	-	○	○	-	○	-	-	-	-	
				60	-	-	-	○	○	-	○	-	-	-	-	
				80	-	-	-	○	○	-	○	-	-	-	-	
				100	-	-	-	○	○	-	○	-	-	-	-	
Tin salts, aqueous, inorganic			≤ saturated acid	20	+	+	-	+	+	+	+	+	+	+	+	
				40	+	+	-	+	+	+	+	+	+	+	+	
				60	+	+	-	+	+	+	+	+	+	+	+	
				80	+	+	-	+	+	+	+	+	+	+	+	
				100	+	+	-	+	+	+	+	+	+	+	+	

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Aggressive media				Chemical resistance											
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
Toluene	C ₆ H ₅ -CH ₃	111	technically pure	20	-	-	-	O	O	+	-	+	-	-	-
				40											
				60											
				80											
				100											
				120											
				140											
Trichloro-methane	CHCl ₃	61	100 %	20						+		+			
				40											
				60											
				80											
				100											
				120											
				140											
Trichloroacetic acid	Cl ₃ -C-COOH		50 %, aqueous	20	+	-	-	+	+	+	O	-	-	-	-
				40	O			+	+	+					
				60				+	+	+					
				80					+	+					
				100											
				120											
				140											
Trichloroacetic acid	Cl ₃ -C-COOH	196	technically pure	20	O	-	-	+	+	O	O	-	-	-	-
				40				O	+						
				60					+						
				80											
				100											
				120											
				140											
Trichloroethane	Cl ₃ -C-CH ₃	74	technically pure	20	-	-	-	O	O	+	-	+	-	-	-
				40						+					
				60											
				80											
				100											
				120											
				140											
Trichloroethylene	Cl ₃ C=CHCl	87	technically pure	20	-	-	-	-	O	+	-	+	-	-	-
				40											
				60											
				80											
				100											
				120											
				140											
Triethylamine	N(CH ₂ -CH ₃) ₃	89	technically pure	20	-	-	-	+	+	O	-	-	-	-	-
				40											
				60											
				80											
				100											
				120											
				140											
Trifluoro acetic acid	F ₃ C-COOH		up to 50 %	20	-	-	-	+	+	+	O	-	-	-	-
				40						+					
				60											
				80											
				100											
				120											
				140											
Turpentine oil			technically pure	20	+	-	-	O	-	+	-	+	O	-	-
				40	O			O				+			
				60								+			
				80								+			
				100											
				120											
				140											

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Aggressive media				Chemical resistance											
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
					Urea	H ₂ N-CO-NH ₂	Fp., 133	up to 30 %, aqueous	20	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	+
				60	O	+	+	+	+	+	+	+	+	+	+
				80	O	+	+	+	+	+	+	+	+	+	+
				100						O	+	+	+	+	+
				120											
				140											
Urine				20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	+
				60	O	+	+	+	+	+	+	+	+	+	+
				80											
				100						+					
				120											
				140											
Vinyl acetate	CH ₂ =CHOOCCH ₃	73	technically pure	20	-	-	-	+	+	+	+	-	-	-	-
				40				+							
				60					O						
				80											
				100											
				120											
				140											
Vinyl chloride	CH ₂ =CHCl	-14	technically pure	20	-	-	-	-	-	+	-	+	-	-	-
				40						+					
				60											
				80											
				100											
				120											
				140											
Waste gases containing - Alkaline				20	+	+		+	+	O	+	+	+	+	+
				40	+	+		+	+	+	+	+	+	+	+
				60	+	+		+	+	-	+	+	+	+	+
				80	+	+		+	+		+	+	+	+	+
				100							+	+	+	+	+
				120											
				140											
Waste gases containing - Hydrochloric acid		all		20	+	+		+	+	+	+	+	O	+	+
				40	+	+		+	+	+	+	+		+	+
				60	+	+		+	O	+	+	+		+	+
				80	+	+		+		+	O	+		+	+
				100						+	+	+		+	+
				120											
				140											
Waste gases containing - Hydrogen fluoride		traces		20	+	+		+	+	+	O	+	+	+	+
				40	+	+		+	+	+	O	+	+	+	+
				60	+	+		+	+	+	O	+	+	+	+
				80	+	+		+	+	+	+	+	+	+	+
				100						+					
				120											
				140											
Waste gases containing - Nitrous gases		traces		20	+	+		+	O	+	+	+	O	+	+
				40	+	+		+	O	+	+	+		+	+
				60	+	+		+	O	+	+	+		+	+
				80	+	+		+		+	O	+		+	+
				100						+		O			
				120											
				140											
Waste gases containing - Sulphur dioxide		traces		20	O	O		+	+	+	+	+	O	+	+
				40	+	+		+	+	+	+	+		+	+
				60											
				80											
				100							+				
				120											
				140											

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Aggressive media				Chemical resistance											
Medium	Formula	Boiling point °C	Concentration	Temperature °C	PVC-U	PVC-C	ABS	PE	PP-H	PVDF	EPDM	FPM	NBR	CR	CSM
Water, drinking, chlorinated			≤ 0.1 ppm Cl ₂	20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	+
				60	+	+	+	+	+	+	+	+	+	+	+
				80	+	+	+	+	+	+	+	+	+	+	+
				100	+	+	+	+	+	+	+	+	+	+	+
Water - distilled - deionised	H ₂ O	100		20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	
				60	+	+	+	+	+	+	+	+	+	+	
				80	+	+	+	+	+	+	+	+	+	+	
				100	+	+	+	+	+	+	+	+	+	+	
Xylene	C ₆ H ₄ (CH ₃) ₂	138 - 144	technically pure	20	-	-	-	-	-	+	-	+	-	-	-
				40	-	-	-	-	-	+	-	+	-	-	-
				60	-	-	-	-	-	+	-	+	-	-	-
				80	-	-	-	-	-	+	-	+	-	-	-
				100	-	-	-	-	-	+	-	+	-	-	-
Zinc salts, aqueous, inorganic			≤ Saturated acid	20	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	
				60	+	+	+	+	+	+	+	+	+	+	
				80	+	+	+	+	+	+	+	+	+	+	
				100	+	+	+	+	+	+	+	+	+	+	