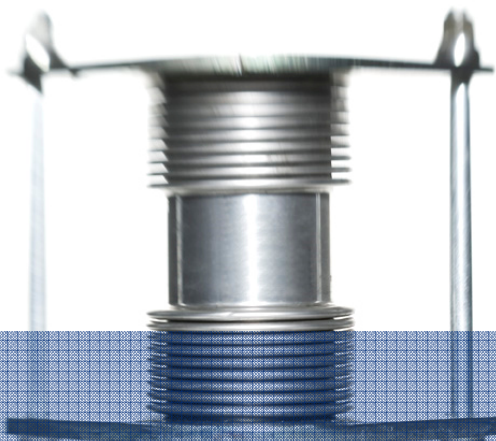




BOA[®] Group



**Annexe / Standards / Corrosion
for Guides**

Module 3

- **Metal Hoses and Hose Assemblies**
- **Metal Bellows**
- **Expansion Joints**

**Guides for: Metal Hoses and Metal Hose Assemblies
 Metal Bellows
 Expansion Joints**

Summary Module 3: Annexe, Standards, Corrosion

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Annexe / Standards

1 Table on guide analyses and characteristic strength values

Material group	Material n° acc. to DIN EN 10027	Short form according to DIN EN 10027	Short form according to DIN 17006 (old)	Documentation	Upper temp. limit °C	Apparent yielding point min. * R _{eH} /R _{eH2} N/mm ²	Tensile strength * R _m N/mm ²	Breaking elongation min. *		Impact value min.	
								A ₅ %	A ₈₀ %		AV (KV) J
-	-	-	-	-	°C						
Unalloyed steel	1.0254 1.0427	P235T1 C22G1	St 37.0 C 22.3	DIN EN 10217 DIN EN 10216	300 350	235 240	350-480 410-540	23 20		31	
	1.0038 1.0050 1.0570	S235JRG2 E295 S355J2G3	St 37-2 St 50-2 St 52-3	DIN EN 10025	300	235 295 355	340-470 470-610 490-630	21-26 16-20 17-22		27 27 / -20°C	
	1.0460	C22G2	C 22.8	VdTUV-W 350	480	240	410-540	20		31	
Temperature resistant unalloyed steel	1.0305 1.0345 1.0425 1.0481 1.5415 1.7335 1.7380	P235G1TH P235GH P265GH P295GH 16Mo3 13CrMo4-5 10CrMo9-10	St 35.8 H I H II 17 Mn4 15 Mo 3 13 CrMo 4.4 10 CrMo 9 10	DIN 17175 DIN EN 10028 T1/T2	480 480 480 500 530 570 600	235 235 265 295 300 310	360-480 360-480 410-530 460-580 440-590 440-590 480-630	23 25 23 22 24 20 18		34 27 / 0°C 27 / 0°C 27 / 0°C 31 31 31	
	Stainless austenitic steel	1.4301 1.4306 1.4541 1.4571 1.4404 1.4435 1.4465 1.4539 1.4529	X5CrNi18-10 X2CrNi19-11 X6CrNiTi18-10 X6CrNiMoTi17-12-2 X2CrNiMo17-12-2 X2CrNiMo18-14-3 X1CrNiMoN25-25-2 X1NiCrMoCu25-20-5 X1NiCrMoCuN25-20-7	X 5 CrNi 18 10 X 2 CrNi 19 11 X 6 CrNiTi 18 10 X 6 CrNiMoTi 17 12 2 X 2 CrNiMo 17 12 2 X 2 CrNiMo 18 14 3 X 2 CrNiMoN 25 25 2 X 2 NiCrMoCu 25 20 5 X 2 NiCrMoCu 25 20 6	DIN EN 10088	550 550 550 550 550 550 400 400	230 200 220 240 240 240 220 300	540-750 520-670 520-720 540-690 530-680 550-700 540-740 520-720 600-800	45 45 40 40 40 40 30 40 40		45 45 40 40 40 40 40 40
		1.4948 1.4919 1.4958	X6CrNi18-11 X6CrNiMo17-13 X5NiCrAlTi31-20	X 6 CrNi 18 11 X 6 CrNiMo 17 13 X 5 NiCrAlTi 31 20	DIN 17459	600	185 205 170	500-700 490-690 500-750	40 35 35		60 60 80
		1.4828 1.4876 (1.4876H)	X15CrNiSi20-12 (AISI 309) X10NiCrAlTi32-21 Incoloy 800 X10NiCrAlTi32-20 Incoloy 800H	X 15 CrNiSi 20 12 UNS N 08800 ASTM B409/408/407 UNS N 08810 ASTM B409/408/407	DIN EN 10095 DIN EN 10095 VdTUV-W 412 VdTUV-W 434	1000 600 950	230 210 170	500-750 500-750 450-700	22 30 30		

Material group	Material n° acc. to DIN EN 10027	Short form according to DIN EN 10027	Short form according to DIN 17006 (old)	Documentation	* Strength values at room temperature		(continued from Tab. 5.2)				
					Upper temp. limit	Apparent yielding point min. *	Tensile strength *	Breaking elongation min. *	Impact value min.		
					°C	R _{eH} /R _{eH2}	R _m	A ₅	A ₈₀	AV (KV)	
-	-	-	-	-						J	
Nickel-based alloys	2.4360	NiCu 30 Fe Alloy 400/ Monel	UNS N 04400	DIN 17750	425	195	≤ 485	35		80 / 20°C	
	2.4602	NiCr 21 Mo 14 W	ASTM B127/164/165 UNS N 06022	VdTUV-W263	600	310	≥ 690	45		150 / 20°C	
	2.4605	Alloy C-22 NiCr 23 Mo 16 Al	ASTM B575/622/574 UNS N 06059	VdTUV-W479	450	340	≥ 690	40		225 / 20°C	
	2.4610	Alloy 59 NiMo 16 Cr 16 Ti	ASTM B575/574/622 UNS N 06455	VdTUV-W505	400	305	≥ 700	35		96 / 20°C	
	2.4816	Alloy C-4 NiCr 15 Fe	ASTM B575/574/622 UNS N 06600	DIN 17750	450	200	550-750	30		150 / 20°C	
	2.4819	Alloy 600 NiMo 16 Cr 15 W	ASTM B168/166/167 UNS N 10276	VdTUV-W305	800	310	≥ 750	30			
	2.4856	Alloy C-276 NiCr 22 Mo 9 Nb	ASTM B575/574/622 UNS N 06625	DIN 17750	600	410	≥ 800	30		100 / 20°C	
	2.4858	Alloy 625 NiCr 21 Mo	ASTM B443/446/444 UNS N 08825	VdTUV-W499	450	225	550-750	30		80 / 20°C	
			Alloy 825	ASTM B424/425/423	VdTUV-W432						
	Pure nickel	2.4068	LC-Ni 99.2	UNS N 02201 ASTM B162/160/161	DIN EN 17750 VdTUV-W345	600	80	340-450	40		
Copper	2.0090	SF-Cu		DIN 17670	250	45	≥200	42			
Copper tin alloys	2.1020	CuSn6 (Bronze)	UNS ~ C 51900	DIN 17670	250	300	350-410	55			
	2.1030	CuSn8	UNS C 52100	DIN 17670	250	≤300	370-450	60			
Copper zinc alloys	2.0250	CuZn20	UNS C 24000	DIN 17670		≤150	270-320	48			
	2.0321	CuZn37 (Messing)	UNS C 27200	DIN 17670		≤180	300-370	48			
Copper beryllium alloys	2.1247	CuBe2		DIN 17670		≤250	390-520	35			
Aluminium	3.0255	Al 99.5		DIN 1712		≤55	65-95	40			
Aluminium forging alloys	3.3535	AlMg3		DIN 1725	150	80	190-230	20			
	3.2315	AlMgSi 1		DIN 1725		≤85	≤150	18			
Titanium	3.7025	Ti		DIN 17850 VdTUV-W230	250	180	290-410	30		62	
Tantalum	-	Ta		VdTUV-W382	250	150	> 225	35			

2 International standards / Comparison table

Germany		USA		Great Britain		France		Russia	
Material n°	Short form	UNS / ASTM standard	Grade	Designation	Designation	Designation	Designation	Designation	Designation
1.0254 1.0427	P235T1 C22G1	~ A106/A53 -	A	~ S360 (S;ERW) -	-	-	-	-	-
1.0038 1.0050 1.0570	S235JRG2 E295 S355J2G3	A252/A500 /A570 ~ A714	3	En 40 B E 295 En 50 D	S235JRG2 A50-2 S355J2G3	-	-	~ St 3 ps ~ St 5 ps ~ 17GS / 17 G1S	-
1.0460	C22G2	-		-	-	-	-	-	-
1.0305 1.0345 1.0425 1.0481 1.5415 1.7335 1.7380	P235G1TH P235GH P265GH P295GH 16Mo3 13CrMo4-5 10CrMo9-10	A106/A178/A179/A53 K 02202/A285/A414 K 02402/A283/A285 A106/A414/A555/A662 A204 A182/A234/A387 A182/A217/A541/A873	A A, B, C C C, F, E, B A, B, C F F22	~ 320/ ~ 360 141 - 360 151 - 400 224 - 460 B 16 Mo 3 / ~ 243 13 CrMo 4 - 5/ ~ 620 10 CrMo 9 - 10/ ~ 622	- A 37 CP A 42 CP A 48 CP 15 D 3 13 CrMo 4-5 10 CrMo 9-10	- - ~ 16K / ~ 20K 14G2 -	- -	- -	- -
1.4301 1.4306 1.4404 1.4435 1.4465 1.4529 1.4539 1.4541 1.4571	X5CrNi18-10 X2CrNi19-11 X2CrNiMo17-12-2 X2CrNiMo18-14-3 X1CrNiMoN25-25-2 X1NiCrMoCuN25-20-7 X1NiCrMoCu25-20-5 X6CrNiTi18-10 X6CrNiMoTi17-12-2	AISI 304 AISI 304 L AISI 316 L AISI 316 L N 08310 A 351 N 08904 AISI 321 AISI 316 Ti		304 S 15 304 S 11 316 S 11 316 S 13 - - 904 S 13 321 S 13 320 S 31	Z6 CN 18-09 Z2 CN 18-10 Z2 CND 17-12 Z3 CND 17-12-03 - - Z2 NCDU 25-20 Z6 CNT 18-10 Z6 CNDT 17-12	08Ch18N10 03Ch18N11 - 03Ch17N14M3 02Ch25N22AM2-PT - - 08Ch18N10T 08Ch16N11M3T	- -	- -	- -
1.4948 1.4919 1.4958	X6CrNi18-11 X6CrNiMo17-13 X5NiCrAlTi31-20	AISI 304H / S30480 AISI 316 H		304 S 51 316 S 50 - 53 NA 15 H	- - Z8 NC 33-21	- -	- -	- -	- -
1.4828 1.4876 (1.4876H)	X15CrNiSi20-12 X10NiCrAlTi32-21 X10NiCrAlTi32-20	AISI 309 N 08800/B409/408/407 N 08810/B409/408/407							
2.4360 2.4602 2.4610 2.4816 2.4819 2.4856 2.4858	NiCu 30 Fe NiCr 21 Mo 14 W NiMo 16 Cr 16 Ti NiCr 15 Fe NiMo 16 Cr 15 W NiCr 22 Mo 9 Nb NiCr 21 Mo	N 04400/B127/B164/B165 N 06022/B575/B622/B574 N 06455/B575/B574/B622 N 06600/B168/B166/B167 N 10276/B575/B574/B622 N 06625/B443/B444/B446 N 08825/B424/B425/B423							

3 Conversion tables

3.1 Pressure

Pressure units used in vacuum engineering					
	mbar	Pa (Nm ⁻²)	dyn cm ⁻² (μ b)	Torr (mm Hg)	micron (μ)
mbar	1	100	1000	0.75	750
Pa (Nm ⁻²)	$1 \cdot 10^{-2}$	1	10	$7.5 \cdot 10^{-3}$	7.5
dyn cm ⁻² (μ b)	$1 \cdot 10^{-3}$	0.1	1	$7.5 \cdot 10^{-4}$	0.75
Torr (mm Hg)	1.33	$1.33 \cdot 10^2$	$1.33 \cdot 10^3$	1	1000
micron (μ)	$1.33 \cdot 10^{-3}$	$1.33 \cdot 10^{-1}$	1.33	$1 \cdot 10^{-3}$	1
bar	$1 \cdot 10^3$	$1 \cdot 10^5$	$1 \cdot 10^6$	750	$7.5 \cdot 10^5$
atm	1013	$1.01 \cdot 10^5$	$1.06 \cdot 10^6$	760	$7.6 \cdot 10^5$
at (kp cm ⁻²)	981	$9.81 \cdot 10^4$	$9.81 \cdot 10^5$	735.6	$7.36 \cdot 10^5$
mm WS (kp m ⁻²)	$9.81 \cdot 10^{-2}$	9.81	98.1	$7.36 \cdot 10^{-2}$	73.6
psi	68.9	$6.89 \cdot 10^3$	$6.89 \cdot 10^4$	51.71	$5.17 \cdot 10^4$

General pressure units					
	bar	atm	at (kp cm ⁻²)	mm WS (kp m ⁻²)	psi
mbar	$1 \cdot 10^{-3}$	$9.87 \cdot 10^{-4}$	$1.02 \cdot 10^{-3}$	10.2	$1.45 \cdot 10^{-2}$
Pa (Nm ⁻²)	$1 \cdot 10^{-5}$	$9.87 \cdot 10^{-6}$	$1.02 \cdot 10^{-5}$	0.102	$1.45 \cdot 10^{-4}$
dyn cm ⁻² (μ b)	$1 \cdot 10^{-6}$	$9.87 \cdot 10^{-7}$	$1.02 \cdot 10^{-6}$	$1.02 \cdot 10^{-2}$	$1.45 \cdot 10^{-5}$
Torr (mm Hg)	$1.33 \cdot 10^{-3}$	$1.32 \cdot 10^{-3}$	$1.36 \cdot 10^{-3}$	13.6	$1.93 \cdot 10^{-2}$
micron (μ)	$1.33 \cdot 10^{-6}$	$1.32 \cdot 10^{-6}$	$1.36 \cdot 10^{-6}$	$1.36 \cdot 10^{-2}$	$1.93 \cdot 10^{-5}$
bar	1	0.987	1.02	$1.02 \cdot 10^4$	14.5
atm	1.013	1	1.03	$1.03 \cdot 10^4$	14.7
at (kp cm ⁻²)	0.981	0.968	1	$1 \cdot 10^4$	14.22
mm WS (kp m ⁻²)	$9.81 \cdot 10^{-5}$	$9.68 \cdot 10^{-5}$	$1 \cdot 10^{-4}$	1	$1.42 \cdot 10^{-3}$
psi	$6.89 \cdot 10^{-2}$	$6.8 \cdot 10^{-2}$	$7.02 \cdot 10^{-2}$	702	1

1 kp	9.81 N
1 at	0.981 bar
1 kpm	9.81 Nm
1 kp /mm ²	9.81 N /mm ²
1 Mpa	$1 \cdot 10^6$ Pa = 10 bar
1 bar	$1 \cdot 10^5$ Pa = 100 kPA

0.1 N /mm ²	14.5038 lb /inch ²
1 kp / cm ²	14.2233 lb /inch ²
1 Pascal	$14.5038 \cdot 10^{-5}$ lb /inch ²
1 kPascal	$14.5038 \cdot 10^{-2}$ lb /inch ²
1 Millipascal	$14.5038 \cdot 10^{-8}$ lb /inch ²
1 bar	14.5038 lb /inch ²

3.2 Other conversion tables

Flow rate

Conversion of flow rate units					
	mbar l s ⁻¹	Pa m ³ s ⁻¹	Torr l s ⁻¹	atm cm ³ s ⁻¹	lusec
mbar l s ⁻¹	1	$1 \cdot 10^{-1}$	$7.5 \cdot 10^{-1}$	$9.87 \cdot 10^{-1}$	$7.5 \cdot 10^2$
Pa m ³ s ⁻¹	10	1	7.5	9.87	$7.5 \cdot 10^3$
Torr l s ⁻¹	1.33	$1.33 \cdot 10^{-1}$	1	1.32	$1 \cdot 10^3$
atm cm ³ s ⁻¹	1.01	$1.01 \cdot 10^{-1}$	$7.6 \cdot 10^{-1}$	1	$7.6 \cdot 10^2$
lusec	$1.33 \cdot 10^{-3}$	$1.33 \cdot 10^{-4}$	$1 \cdot 10^{-3}$	$1.32 \cdot 10^{-3}$	1

Temperature

	° C	° F	° K
° C	1	$\frac{5}{9}(\text{°F}-32)$	K-273.15
° F	$\frac{9}{5}\text{°C}+32$	1	$\frac{9}{5}\text{K}-459.67$
° K	°C+273.15	$\frac{5}{9}(\text{°F}+459.67)$	1

Length

	mm	m	inch	feet
mm	1	0.001	0.03937	0.00328
m	1000	1	39.3701	3.2808
inch	25.4	0.0254	1	0.0833
feet	304.8	0.3048	12	1

Surface

	mm ²	m ²	inch ²	feet ²
mm ²	1	$1 \cdot 10^{-6}$	0.00155	$1.0764 \cdot 10^{-5}$
m ²	$1 \cdot 10^6$	1	1550	10.7639
inch ²	645.16	$6.452 \cdot 10^{-4}$	1	$6.944 \cdot 10^{-3}$
feet ²	92903	0.092903	144	1

Volume

	mm ³	cm ³	m ³	inch ³	feet ³
mm ³	1	0.001	$1 \cdot 10^{-9}$	$6.1 \cdot 10^{-5}$	$3.531 \cdot 10^{-8}$
cm ³	1000	1	$1 \cdot 10^{-6}$	0.061	$3.531 \cdot 10^{-5}$
m ³	$1 \cdot 10^9$	$1 \cdot 10^6$	1	61023.7	35.3147
inch ³	16389	16.387	$1.6387 \cdot 10^{-5}$	1	$5.787 \cdot 10^{-4}$
feet ³	$2.832 \cdot 10^7$	$2.832 \cdot 10^4$	0.0283169	1728	1

Weight

	kg	pound
kg	1	2.20462
pound	0.453592	1

Force

	kp	N	Dyn	lbf
kp	1	9.80665	980665	2.20462
N	0.101972	1	$1 \cdot 10^5$	0.224809
Dyn	$1.01972 \cdot 10^{-6}$	$1 \cdot 10^{-5}$	1	$2.24809 \cdot 10^{-6}$
lbf	0.453592	4.44822	444822	1

Density

	g/m³	kg/m³	lb/inch³	lb/ft³
g/m³	1	0.001	$3.61273 \cdot 10^{-8}$	$6.2428 \cdot 10^{-5}$
kg/m³	1000	1	$3.61273 \cdot 10^{-5}$	0.062428
lb/inch³	$2.76799 \cdot 10^7$	27679.9	1	1728
lb/ft³	16018.5	16.0185	$578.704 \cdot 10^{-6}$	1

Moments

	Nm	kp · m	lbf · ft	lbf · inch
Nm	1	0.101972	0.737561	8.85073
kp · m	9.80665	1	7.233	86.796
lbf · ft	1.35582	0.138255	1	12
lbf · inch	0.112985	0.0115213	0.08333	1

Spring characteristics

	N/mm	kg/mm	lb/inch
N/mm	1	0.101972	5.7101
kg/mm	10.1972	1	55.991
lb/inch	0.1751	0.01786	1

Acceleration

	m/s²	ft/s²	inch/s²
m/s²	1	3.28084	39.3701
ft/s²	0.3048	1	12
inch/s²	0.0254	0.083333	1

4 Corrosion

4.1 Technical information

All information, data and tables are based on information and documentation provided by the raw materials manufacturer or our many years of experience in the field. They do not claim to be exhaustive and are expressly recommendations for which no liability can be accepted. The users of our products are recommended to perform their own tests in case of uncertainties for the intended use.

Among other things, it should be noted that all data concerning chemicals are based on analytically pure substances and never on mixtures of media. All relevant conditions must be observed.

Often the chemical behaviour of the metal hose or metal bellows material depends on the upstream tube material. All surfaces exposed to the medium must be taken into account, e.g. if there is corrosion tendency, but the surface likely to corrode is very small, then the corrosion attack can very quickly go into depth.

Layers, deposits, ferritic filings, etc., can both inhibit corrosion (e.g. thick layers) as well as stimulate corrosion (e.g. deposits enriched with chlorides). Ferritic filings can even act as a real corrosion trigger.

Any legal claim based on the information in this document may be derived, either express or implied.

Information on the following corrosion table

The corrosion rate is expressed as a weight loss per unit of surface and time, e.g. g/mm²h or as a reduction in thickness per unit of time, e.g. mm/year. The corrosion rate is used for laboratory tests, whereas the thickness reduction is more useful for practical assessments.

In the tables on the following pages, the corrosion rate or corrosion behaviour of the various materials is classified into resistance levels from 0 to 3, based on an even corrosive attack. The meaning of the levels is given in the table below:

Resistance level	Thickness reduction mm/year	Resistance
0	≤ 0.11	Completely resistant under normal operating conditions.
1	>0.11 ... ≤1.1	Resistant in many cases under normal operating conditions, but should only be used if other specific material properties do not allow the use of a level 0 material.
2	>1.1 ... ≤11.0	Moderate resistance. Shall only be used in exceptional cases.
3	>11	Not resistant. Use by no means possible.

Meaning of the abbreviations used in the tables

L	=	risk of pitting corrosion
S	=	risk of stress crack corrosion
Schm	=	molten, melts
Konz	=	concentrated substance
SP	=	boiling (boiling point)
tr	=	dry (anhydrous)
fe	=	moist
wh	=	contains water
wL	=	aqueous solution
ges	=	saturated
kg	=	cold saturated
hg	=	hot saturated
> 50	=	higher than 50
≤ 50	=	smaller than or equal to 50
≤ 0.1	=	smaller than or equal to 0.1
()	=	divergent literature information or uncertain values ≤

Information on types of corrosion

Pitting corrosion

Pitting is a special type of corrosion in electrolytes containing halogen. The risk of pitting depends on several factors.

The pitting tendency increases with

- increasing concentration of chloride ions
- increasing temperature
- increasing electro-chemical potential of the steel in the electrolytes concerned

The pitting tendency is reduced by

- adding molybdenum (increasing contents of molybdenum in the steel reduces the risk of pitting, which means Mo contents between 2% and about 5%)
- higher chromium contents. The higher the chromium content (>20%), the more effective even a small quantity of Mo can be.

Pitting may be prevented by

- reduction of the electro-chemical potential in the electrolyte concerned, e.g. by cathodic protection.

Stress corrosion cracking

Stress corrosion cracking is one of the corrosion type needing several factors simultaneously to be triggered:

- a specific corrosion agent, e.g. chlorides or alkaline media
- critical system parameters (temperature, concentration, limit stress)
- a material susceptible to stress corrosion cracking
- static and/or dynamic mechanical tensile load

Stress corrosion cracking is one of the most unpleasant forms of corrosion, because it usually leads abruptly and very quickly to crack damage in components of any kind. Depending on alloy structure and corrosive attack, as a typical phenomenon cracks appear in intercrystalline or transcrystalline form, amorphous and usually ramified. Often there is a forced rupture of the component at the end of the crack. Stress corrosion cracking may be triggered by pitting corrosion, always starting from a locally active weak spot. Stress corrosion cracking can identically proceed in non-ferrous metals as in austenitic materials.

4.2 Corrosion resistance table

Medium	Concentration %	Temperature (°C)	unalloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
Acetanilide (Antifebrin)		<114													0
Acetate		20									0	0	0		0
Acetate dehydrate	100	20	1	1	0	0	0	0	0	0	1	1	1		0
	100	SP					0	0	0	0	2	3	2		0
	98	<54					0	0	0	0					0
	99	<40					0	0	0	0					0
Acetic anhydride	alle	20	1	0	0	0	1	1	0	0	0	3	0	0	0
	100	60	3	0	0	0					1		1	0	1
	100	100	3	0	0	0					2		2	0	
	100	SP	3	0	0	1		3	1	0				0	
Acetone	100	20	1	0	0	0	0	0	0	0	0	0	0	0	0
	100	SP	1	0L	0L	0	1	0	0	0	1	1	1	0	0
	all	<SP	1	0L	0L	0	1	0	0	0					
Acetylene	tr	20	0	0	0	0	0				3	3	3	0	0
	tr	200	2			2									0
	fe	20													1
Acetylene dichloride	tr	100													0
	wL	5													3
	tr	100		1L	0L	0	0	0	0	0					0
	tr	100	SP	2L	1L	0	0	0	0	0					0
Acetylenetetrachloride	Schm	100	700												3
	fe	100	20												3
	tr	100	SP	0	0	0	0			0	0			0	0
Acetylene cellulose	tr	100	20	0	0	0				0	0			0	0
	tr	100	SP	0	0	0				0	1			1	3
	fe	100	SP	1			1				3				3
Acetylene chlorid		20		1L	0L		1	2	2		3	3	3	0	
		SP		1L	0L		2	2	2		3	3	3	0	
Adhesive, neutral sour		20	(0)	0	0	0	0				0	1	0	0	0
		20	(1)	0	0	0	0								(2)
		SP		0	0										
Adipic acid	all	100		0	0										
		200		0	0										
Aethan		20		0	0										0
Aktivine	0.5	20	3	1L	0L		0								1
	0.5	SP	3	1L	0L		0								3
Alanine		20		0	0										0
Allylalkohol	100	25				0	0	0	0	1					
	100	SP								1					
Allylchloride	100	25				0	0	0	0						
Alum	wL	100	20	2	0	0			2	0	0	2	3	3	1
	wL	10	20	2	0	0					1				1
	wL	10	<80	3	0	0					1				
	wL	10	SP	3	1	0					1				
Aluminium	hg	100	750	3	2	1									
	Schm	100	750	3	3	3	3	3			3	3	3		
Aluminium acetate	wL	3	20	3	0	0				0					0
	wL	100	100	3	0	0				1					
	wL	all	20							1					
	wL	kg	20		0	0	0	2	2	1					2
	wL	kg	SP		0	0				1					
	wL	hg	SP		0	0				1					2

Medium		Concentration %	Temperature (°C)	unallloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium	
Aluminium chloride	wL	5	20	3	2L	1L	1	1	1	1	0	2	3	2	0	3	
		5	50	3	2L	1L	1	1	1	1	0	3	3	3	0		
		5	100	3											0		
		10	20	3	3L	2L	1	1	1	1	0	3	3	3	0		
		10	100	3											0		
		10	150	3											0		
	wL	20	20	3				1	1	1	1	1	3	3	3		3
		20	150	3													3
		25	20	3	3L	2L	1	1	1	1	0	3	3	3	3		0
		25	60	3													0
		25	100	3													2
		30	150	3													3
Aluminium fluorid	wL	5	25	3	2	2		1		0		0			0		
	wL	10	25	3	3	3	1	1			1	1			0	0	
Aluminiumformiate			20									2	3	3	0	0	
Aluminium hydroxide	ges	20	1	0	0			1		0		0	0	0	0	0	
	ges	SP	2	0	0										0	0	
	wL	2	20	3	0	0		1		0	0	0	0	0	0	1	
Aluminium na-sulphate	wL	10	20	3	0	0		1		0		0			0	1	
	wL	10	<SP								1						
Aluminium nitrate	wL	10	20		0	0										2	
	wL	10	50		0	0										3	
Aluminium oxyde			20	1	0	0	0	0	0	0	0	0	0	0	0	2	
Aluminium sulphate	wL	10	20	3	0	0	0	0	0	0	0	2	2	1	0	3	
	wL	10	SP	3	1	0	1	2	1	1	1	3	3	3	3	3	
	wL	50	SP	3	2	1	1				0	3	3	3	3	3	
Amber acid			20													0	
Ammonia	tr	10	20	0	0	0	2	1	0	0	0	0	0	0	0	0	
	fe	20	20	0	0	0	3		0	0	0	3	3	3	0	0	
	wL	10	20		0	0	0	0		0	0	3	3	3	0	0	
	wL	10	SP		0	0	3			1	1				0	0	
	wL	30	20		0	0				0	0						
	wL	30	SP		0	0				1	1						
	wL	50	20		0	0				0	0						
	wL	50	SP		0	0				1	1						
	wL	100	20	0	0	0				0	0						
Ammonium alume	wL	100	20	3	0	0											
	wL	100	SP	3	3	2											
Ammonia bicarbonate	wL	all	20		0	0		2	2	1		3	3	3	0	0	
	wL	all	hot		0	0		2	2	0		3	3	3	0	0	
Ammonia biftuoride	wL	100	20	3	0	0					0						
	wL	20	80	3	0	0					0						
Ammonia bromide	wL	5	25	3	0	0		2			0	3	3	3		2	
	wL	10	SP	3	1LS	1LS										1	
	wL	10	25	3	1LS	1LS					1					3	
Ammonia carbonate	wL	20	20	0	0	0	0	0	0	0	0	2	2	2			
	wL	20	SP		0	0	1	0	0	0	1	3	3	3			
	wL	50	20	0	0	0	0	0	0	0							
	wL	50	SP		0	0	1	0	0	0	1						
Ammonia chloride	wL	25	20	3	1LS	0LS		0	0	0	0	3	3	3	0	2	
	wL	25	SP	3	2LS	1LS		1	1	1	1				0	3	
	wL	50	20	3	1LS	0LS	1	0	1	0	0				0		
	wL	50	SP	3	2LS	1LS		1		1	1				0		
Ammonia fluoride	wL	20	80	3	2LS	2LS					0	3	3	3			
Ammonia formate	wL	10	20													0	
	wL	10	70													0	
Ammonia hydroxyde		100	20		0	0	0	3	0	0	0	3	3	3		1	
Ammonia nitrate	wL	100	20	3	0	0			3		0	3	3	3		0	
	wL	100	SP	3	0	0			3		0	3	3	3		0	
	wL	10	25	3	0	0			3		0	3	3	3			
Ammonia oxalate	wL	10	20	1	0	0					0						
	wL	10	SP	3	1	0					0						
Ammonia perchlorate	wL	10	20		0LS	0LS					1						
	wL	10	SP		0LS	0LS					1						
	wL	all	<70		0LS	0LS					1						
Ammonia persulphate	wL	5	20	3	0	0	3	3	1	0	0	2				2	
	wL	10	25	3	1	1	3	3			0	2	3	3			
	wL	10	30	3	1	1	3	3			0	2	3	3			
	wL	20	20	3													
	wL	20	100	3													

Medium	Concentration %	Temperature (°C)	unalloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
Ammonia phosphate	5 10 10	25 20 60	0 0 0	1 1 0	0 0 0	1 1 1	1 1 1	0 0 0		0	2 3 3	2 3 3	2 3 3		0 1 3
Ammonia rhodanide	5 5	20 70	3 3	0 0	0 0			0 0	0 0	0 0					0 0
Ammonia sulphate	wL wL wL wL wL wL	1 5 10 10 100 100		0 0 1 2 0 0	0 0 0 0 0 0	1 1 1 2 1 1	1 1 1 1 1 1	1 1 2 2 1 1	0 0 0 0 0 0	0 0 1 2 1 2	2 2 3 3 3 2	2 3 3 3 3 3	2 2 3 3 3 3	0 0 0 0 0 0	2L 2L 2L 3L 0 0
Ammonia sulphite	wL wL	100 100	2 3	0 0	0 0	3 3	3 3	3 2	2 2		3 3	3 3	3 3		
Ammoniumfluorsilikat	wL	20	40	3	1	0				0					
Ammoniummolybdat		100	100											0	
Amoniacal copper chloride	wL wL wL	1 10 20	20 20 20				1 3 3								
Amyl acetate	100 100	20 SP	0 1	0 0	0 0	0 0	0 0	0 0	0 0	1	0	0	0		0 0
Amyl alcohol	100 100	20 SP	0 1	0 0	0 0	0 0	0 0	0 0	0 0	0	0	0	0	0	0 1
Amyl chloride	100 100	20 SP	1	0LS 1LS	0LS 0LS	1	1	1	0	0	0				2
Amylmercaptan	100 100	20 160		0 0	0 0					0 0					0
Aniline	100 100	20 180		0 1	0 1		1 2	0	0		3	3	3		0 3
Aniline cholours											2	2	2		
Anilinhydrochloride	wL wL	5 20	20 100		3 3									0 0	
Aniline sulphite	wL	10 100	20 20					1L							
Antimony	Schm	100	650	3	3	3				0					3
Antimony chloride	tr wL		20 100	0 1	3 3	3 0	0 0								3 3
Apple acid	wL wL wL		20 90 100	2 3 3	0 0 0	0 0 0	2 1 1	1 1 1	0 0 0	0 0 0	3 3 3	2 2 2	2 2 2	0 0 0	0 0 0
Arsenic acid	wL Schm		65 110	3 3	0 2	0 1									
Asphalt			20	0	0	0	0	0	0	0	0	0	0	0	0
Atmosphere	Land Indust. Sea		-20 bis 30	0 1 2	0 0 0LS	0 0 OS	0 1 0	0 0 0	0 0 0	0 0 0	0 0 0	0 1 1	0 0 0	0 0 0	0 1 2
Azo benzene			20		0	0	0	0	0	0	0		0		0
Barium carbonate			20	3	0	0	1	0	0	0			0	0	1
Barium chloride	Schm wL wL	100 10 25	1000 SP SP		3L 1L 1L	3L OL OL	1 1 1	1 1 1	1 1 1	0 0 0	2 3 3	3 3 3	3 3 3	0	
Barium hydroxyde	solid wL wL wL wL wL	100 all all 100 kg hg 50	20 20 SP 815 20 SP 100	0 0 0 0 0 0	0 0 0 0 0 0	0 1 1 0 0 0	1 1 1 1 1 1	1 1 1 0 0 0	0 0 0 0 1 1	0 0 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1		3 3 0 3 0 0
Barium nitrate	wL wL Schm wL wL	all all	40 SP 600 20 >100		0 0 0 0 3	0 0 0 0 0			1 1 1 1 1	0 0 1 1 0	2 2 2 2 2			0 0 0 0 0	0 0 0 0 0
Barium sulphate			25	1	0	0	1	1	0	0	0		0	0	0
Barium sulphite			25	2	0	0	2				3	3	3		
Beer		100 100	20 SP		0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0
Beer condiment		20	SP								3	1	3		1
Beet sugar syrup			20	(1)	0	0	0						0		0
Benzene acid	wL wL wL wL	all 10 10 ges	20 20 SP 20	1 3 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	1 1 1 1	1 2 1 1	1 1 1 1	0 0 0 0	0 0 3 0
Benzene chloride	tr	100	20												0

Medium	Concentration %	Temperature (°C)	unalloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
fe	100	20													3
Benzene, non-sulfureos	100	20		0	0	0	0	0	0	1				0	0
	100	SP		0	0	1	1	1	1	1	1	1	1		
Benzene sulphonal acid	91,3	140	3	3	3					1				3	
	92	200	3	3	3					0				3	
Blood (pure)		36		0S	0										
Bonder solubilizing		98			0	0									
Borax	wL	1	20	0	0	0	0	0	0						
	wL	ges	20	1	0	0	0	0	0			0	0	0	0
	wL	ges	SP	3	0	0	0	0	0						1
	Schm			3	3	3								0	
Boric acid	wL	1	20	3	0	0	1	1	1	0	0			0	0
	wL	4	20	3	0	0	1	1	1	0	0			0	0
	wL	5	20	3	0	0	1	1	1	0	0			0	0
	wL	5	100	3	0	0	2	1	2	0	0	1	2	1	0
	wL	ges	20	3	0	0	0	1	1	0	0			0	0
	wL	all	20	3	0	0				0	0			0	0
	wL	all	<SP	3	0	0		0	0	0	0			0	0
	wL	10	20	3	0	0	1	1	0	0				0	0
Boron		20			0	0									
Brandy		20		0	0										1
		SP		0	0										3
Bromide water	0,03	20		0L	0L										
	0,3	20		1L	1L										
	1	20		3L	3L										
Bromine	tr	100	20	3L	3L	3L	0	0	0	1	0	0	0	2	3
	tr	100	<65	3L	3L	3L	0	0	0	1	0			3	3
	tr	100	<370	3L	3L	3L					2			3	3
	fe	100	20	3L	3L	3L	0	0	3		3	2	3	1	0
	fe	100	50		3L	3L	0		3		3				3
Butadiene		100	30		0	0	0	0	0	0	0				0
			20		0	0	0	0	0	0					
Butane		100	20	0	0	0					0	0	0		
			120		0	0				1					
Butter		20		0	0	0	0	0	0	0	1	2	1	0	0
Butter acid		25	20	3	1		2	1	2	1	0	1			0
		25	60	3	1		2			0					0
		50	20	3			2			0					0
Butter acid		50	60	3			2			0					1
	ges	20	3	0	0	2				0					0
	ges	SP	3	2	0	2				0					1
Buttermilk		20		0	0		0	0	0	0				0	0
Butyl alcohol		100	20	0	0	0	1	1	1	0	0	0	0	0	0
		100	SP	0	0	0	2	2		0	0			0	0
Butyl acetate		20	0		0		1				0	0			0
		SP					1								
Cadmium	Schm	100	350	1	2	2									
	Schm	100	400		2	2									
Calcium	Schm	100	800	3	3	3									
Calciumbisulphite	wL	ges	20	3	0	0					0	3	1	0	
		ges	SP	3	2	0								0	
		20	20		0	0								0	
		20	SP		1	0								0	
Calcium carbonate		20		0	0	0	0	0	0	0					
Calium chlorate		100	20	0	0LS	0LS	1	1	1	0	1				
	wL	10	20		0LS	0LS	1	1	1	0	1	1			
	wL	10	100		2LS	1LS	1	1	1	0	1	1			
	wL	100	100		2LS	1LS	1	1	1	0	1	1			
Calcium Chloride	wL	10	20	3	0S	0S	0	0	0	0	0	3	1	0	3
	wL	25	20	3	0L	0L	0	0	0	0	1	3	2	0	3
	wL	25	SP	3	0LS	0LS			0	0		3		0	3
	ges	20	3	0L	0L	1	1	0	0	0	0	3		0	3
	ges	SP	3	1L	0L		2	0	0	0	0	3		1L	3
Calcium hydroxyde		<50	20	0		0	1	1	1	0	1	0	0	0	3
		<50	<SP	0		0	1	1	1	0	1			0	3
	ges	20	0	0	0	0	0	0	1	1				0	3
	ges	SP	0	0	0	0	0	0	2	2				0	3
Calcium hypochloride	wL	10	25	3	3LS	0LS		3			1	1	3	1	0
		15	50	3	3LS	0LS					1			0	3
		20	25	3	3LS	0LS					0	1	3	1	0
		20	50	3	3LS	0LS					1			0	3
	ges	<40	3	2LS	1LS					0				0	3
Calcium nitrate		20	100		0	0		0	0						
		50	100		0	0		0	0						

Medium	Concentration %	Temperature (°C)	unalloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
Schm	100	148		0	0		0	0	0	0					
Calcium sulphate (Gypsum)	fe	20 SP	1 3	0 0	0 0	0 0	0 0	0 0	0 0	0 1					0 1
Calcium sulphite	wL	ges SP	20 0	0 0	0 0										1 1
Camphor		20 (0)	0	0	0	0	0	0	0	0					0
Carbon dioxide	tr	100	20	0	0	0	0	0	0	0	0	0	0	0	0
	tr	100	<540	0	0	0	0	0	0	0	3	0	0	0	0
	tr	100	700	3				1							
	tr	100	1000	3				3							
	tr	all	<760												
	fe	15	25		0	0	1	1	1	0	0			0	3
Carbon dioxide	fe	20	25	1	0	0				0	1	2	1		3
	fe	100	25	2	0	0	1	1	1	0	0			0	3
Carbon oxide, 100 atü		100	20	0	0	0	0	0	0	0					
		100	<540	3	(0)		3	(1)	(3)	0	2				1
Carbon tetrachloride	tr	100	20	0	0L	0L	0	0	0	0	0	0		0	0
	tr	100	75		0L	0L								0	0
	tr	100	SP	1	0L	0L	0			0	0	0		0	2
	fe	20	0	0	0L	0L	0	0		0	1	2	1	0	1
	fe	SP	1	1L	1L	3	3				2	2	3	1	3
Carnallite	wL	kg SP	20 3	0L 3	0L 1LS					0 0	0 0				
Castor oil		100	20	(0)	0	0	0	0	0	0	0	0	0	0	0
		100	100	(2)	0	0	0	0	0	0	0	0	0	0	0
Cement	fe		20												3
Cheese			20		0	0									
Chloramin			20	3	1L	0L	0								0
	0,5	SP	3	3	1L	0L	0								0
Chlorine	tr	100	20	0	0L	0L	0	0	0	0	0		0	3	0
	tr	100	100	0	0L	0L	0	0	0	0	0			3	0
	tr	100	<250	3	0L	0L	0	0	0	1	3			3	3
	tr	100	<400	3	2L	1L	0	0		1				3	3
	tr	100	500	3L	3L	2L	1	1	0	2	1			3	3
	fe	99	20	3L	3L	3L	0	2	1	0	3	3	2	0	3
	fe	99	100	3L	3LS	3LS				1	3	3	3	1	3
Chlorine benzene		100	20	0	0LS	0LS	1	1	1	1	0	1			1
		100	SP		0LS	0LS	1	1	1	1	0				2
Chlorine calcium	fe	20	3	1LS	1LS		1				1	3	1		3
	wL	1	20	3	2LS	0LS								0	3
	wL	5	20	3	1LS	0LS	0				3			0	3
	wL	5	100	3	3LS	3LS	0							1	3
Chlorine dioxide	tr		70	2	2	0				0		3	3		
	wL	0,5	20	3	3	3				1		3	3		
	wL	1	65	3	3	3				2		3	3		
Chlorine sulphinated acid	tr	100	20	3	1LS	0LS	0	0	0	0	0			3	0
	fe	99	20	3	2LS	0LS	3	1	1					3	3
	wL	10	20	3	3	3	3	0	0					3	3
Chlorine vinegar acid	Mono-	50	20	3	3	3	1		1		2	3	3		3
	Konz	<70	SP	3	3	3	1		1						
	Di-Tri-	100	100	3					2		1				
	>10	SP	20	3	0L	0L		0		0					
		SP	3	3				3		1					
Chlorine water	ges	20	3	1LS	1LS					0				0	3
	ges	90	3	2LS	2LS					1					3
Chloroform	fe	99	20	3	0LS	0LS	0	0	0	0	0			0	3
	fe	99	SP	3	0LS	0LS	0	0	0	0	1			1	3
Chocolate			20	0	0	0	0	0	0	0	(0)	(0)	(0)	0	0
			120	0	0	0	0	0	0	0	(0)	(0)	(0)	0	0
Chromic alum	wL	ges	20	3	1	0	1	0				3			3
	wL	ges	SP	3	3	3	2					3			3
	wL	10	20	3	0	0	0					3			1
Chromium acid	wL	5	20	3	0	0	3	3	3	1	0	3	3	0	1
		5	90	3	3	3	3	3		1	3	3	3	0	
		10	20	3	0	0	2	2	2	1	0	3	3	0	1
		10	SP	3	3	3	3	3	3	1	0	3	3	0	3
		50	20	3	3	3	2	2	2	1	3	3	3	0	2
		50	SP	3	3	3	3	3	3	1	3	3	3	0	3
Chromium sulphate	ges	20	2	0	0	0	0	0	0	0					
		90	3	3	2	0	0	1	0	0					
Cider			20		0	0									1
Cinammon acid		100	20												3
Cocoa			SP	2	0	0	0	0	0	0	0	0	0	0	0

Medium		Concentration %	Temperature (°C)	unalloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium	
Coffee	wL		20 SP	0 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
Copper acetate	wL		20 SP	(3) (3)	0 0	0 0	(1) (1)	(1) (1)	(1) (1)					3 3		3 3	
Copper-II-chloride	wL	1	20 SP	3	1LS 3LS	0LS 3LS				0	1				0 0		
	wL	1	20 SP	3	2LS	1LS	3				1	2	3	2	0 0	3	
	wL	5	20 SP	3	3	3	3				1				0 0		
	wL	40	20 SP	3	3	3	3		3	3					0		
	wL	40	20 SP	3	3	3	3										
Copper-II-cyanide	wL	10	20 SP	2	0	0					0						
	wL	10	20 SP	3	0	0					1						
	wL	hg	20 SP	3	0	0	3	3	3		1	3				3	
Copper-II-nitrate	wL	50	20 SP		0	0	3	3	3	0	1	(2)	(3)	(2)	0	3	
	wL	50	20 SP		0	0	3	3	3		1				0		
	wL	ges	20 SP		0	0	3	3	3	0	1	3			0	3	
Copper-II-sulphate (copper vitriol)	all		20 SP	3	0	0	2	2	2		0	(1)	(3)	(1)	0	3	
	all		<SP	3	0	0	3	3	3	0	0	3			0	3	
Cotton seed oil			25	0	0	0				0		0	1	0			
Creosote			20 SP	0	0	0						0				1 3	
		100	20 SP		0	0						0	1	0			
Crude oil		100	20 SP	1	0	0	0	0	0	0						0 1	
		100	100 SP	1	0	0	1	0	0								
		100	400 SP	3				3				3	3				
Developer (Photo)			20		0L	0L											
Dichlorethene		100	<50 SP	3	2L	1L					1			0			
Dichlorethylene	tr	<100	<30 SP	0	0L	0L	0	0	0	0					0	0	
	tr	100	SP		0L	0L									0	1	
	wh	<100	<700 SP													3 3	
	wh	1:1	105 <SP													3 3	
Dichlorethylene		100	20 SP	0	0L	0L						0			0		
		100	SP		0L	0L	2					0			1		
Diesel oil			20	0	0	0	0	0	0	0	0	0	0	0	0	0	
Diesel oil, S <1%		100	20 SP		0L	0L	0	0	0	0	0	0	1	0	0	0	
		100	100 SP	0	0L	0L	2	0	0	0	0	1	1	1	0	1	
Diphenyl		100	20 SP	0	0S	0S	0	0	0	0	0	0	0	0	0	0	
		100	400 SP	0	0S	0S	0	0	0	0	0	0	0	0	0	0	
Dripping			20		0	0											
Dye liquor	alkaline or neutral		20 SP		0	0		0									0 0
			SP		0	0		0									1 1
	organic sour		20 SP		0	0		0									
			SP		0	0		0									
	heavily sulphuric		20 SP	3	1	0		0	0								
slightly sulphuric		20 SP	3	3	1		0	0									
Ether		100	20 SP		0	0		0			1	0	0			0	
		100	SP		0	0		0				0	0				
		all	SP		0	0		0				0	0				
Ethereal oil	Citrus oil		20 SP		0	0	0	0	0	0						0	
			SP		0	0	0	0	0	0						0	
			20 SP		0	0	0	0	0	0						0	
Ethyl acetate			20	1	0	0	2	1			1	0		0	0	1	
		all	<SP	1	0	0	2	1			1	2	2	2			
		35	120	1	0	0		1			0	2	2	2			
		100	20	1	0	0	2	1			1	0	1	0		1	
		100	SP	1	0	0	2	1			1	2	2	2			
Ethyl alcohol denaturalized		100	20 SP	0	0	0	0	0	0	0	0	0	0	0	0	0	
		96	20 SP	1	0	0	0	0	0	0	0	0	0	0	0	0	
		96	SP	2	0	0	0	0	0	0	0	0	0	0	0	0	
Ethyl benzene			115		0	0			0	0	0					0	
Ethyl chloride			20 SP	0	0L	0L	0	0	0	0	1	2	2	2	0	1	
			SP		0L	0L					1	3	3	3	0		
	tr		20 SP	0	0L	0L	0	0	0	0	1				0	0	
	tr		SP		0L	0L					1				0	1	
	fe		SP								1				0	3	
	wL	25	20 SP				0	0	0	0	1				0		
	wL	50	25 SP				0	0	0	0	1				0		
wL	70	25 SP				0	0	0	0	1				0			

Medium		Concentration %	Temperature (°C)	unallloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
	wL	100	25		0L	0L	0	0	0	0	1				0	
	wL	5	25		0L	0L	0	0	0	0	0				0	2
Ethylene			20		0	0										0
Ethylene bromide			20		0L	0L										0
			SP		0L	0L										3
Ehtylene diamide Hydrochloride		100	SP	3						2						
Ethylene chloride		tr	20	0	0L	0L		0	2	0		2	3	2	0	0
		wL	100	3	1L	1L					1				0	3
		tr	100		0L	0L									0	0
		fe	100												0	3
		wL	100													3
			20	1	0	0										
Ethylene glycol		100	20	0	0	0	1	1	1	0		1	2	2		0
		100	120													0
Ethylene oxyde			20		0	0										0
Exhaust gas																
Exhaust gas (diesel)		tr	600	3	0L	0L	0	0	0	0	0					1
(Flue gas)		tr	600	3	0L	0L			0	0	0					3
			900	3					0	0	0					
			1100	3					0	0	0					
Fatty acid, high technology		100	60	3	0	0	0	0	0	0	0	0	2	1	0	1
		100	150	3	0	0	0	1	0	0	0	0			0	3
		100	235	3	2	0	0	1	0	0	0	3	3	3	0	3
		100	300	3	3	0	0	1	0	0	0	3	3	3	0	3
Ferro-gallic-ink			20	0	0L	0L		1								
Fluorbor ether		100	50								0					
Fluorine		tr	100	0	0	0	0	0		0	0	0	0	0	0	3
		tr	100	0	1LS	1LS	0	0			0	3	0	0		3
		tr	100	3			0				0	3				3
		fe	100	3	3	2	0	0			0	3	3	3		3
Formic acid		10	20	3	0	0	0		0	0	0					0
		10	SP	3	1	0	2		0	0	0					3
		50	20	3	0	0										
		50	SP	3	3	1										
		80	20	3	0	0		2	0	0		1				0
		80	SP	3	3	2		2	1	0		0				2
		100	20	3	0	0		3				1	1	1		0
		100	SP	3	1	1		3								
Formic aldehyde		10	20	3							0	0	2	0	0	1
		10	70	3							1			0	0	2
		40	20	3	0	0		0			0	0		0	0	1
		40	SP	3	0	0					1			0	0	
Freon		100	-40		0	0	0	0	0	0	0	0	0	0	0	
			100		0	0	0	0	0	0	0	0	0	0	0	
Fruit acid			20	(1)	0	0	0	0	0	0	0	(0)				0
			SP	(2)	0	0	(0)	(0)				1	3	1		
Fruit juice			20	1	0	0		0				1	3	1		0
			SP	1	0	0		0								
Fuel, benzene		tr	20	0	0	0	0	0	0	0	0	0	0	0	0	0
		tr	SP	0	0	0	0	0	0	0	0	0	0	0	0	0
		wh	20	0	0	0	0	0	0	0	0	0	0	0	0	3
		wh	SP	0	0	0	0	0	0	0	0	0	0	0	0	3
Fural			25	2	0	0							2	0		
			SP	3												
Furaldehyde			20	2	0	0						1	3	1		0
			SP	3	0	0										3
Gallic acid		wL	1					0								0
		wL	<50	2												0
			100	2	0	0										0
			SP	3	0	0			3							0
Gelatine		wL	80	1	0	0	0	0	0	0	0	0	1	0	0	0
			<40				1	1	0	0	0					0
Glas		Schm	100	1200	1	1	1									
Glucose			20		0	0						0	1	0		
Glutamine acid			20	1					0	0	0					
			80	3					1	1	1					
Glycerin		100	20	0	0	0	0	0	0	0	0	0	0	0	0	0
		100	SP	1	0	0	0	0	0	0	0	1	0	0	0	0
Glykol acid			20	3	1	1					0				0	1
			SP	3	3	3					0				0	1
Gum (raw)			20	1	0	0	0	0	0	0	0	0	0	0	0	0
Heavy fuel			20		0L	0L	2	0	0	0	0	0	0	0	0	0
Hexamethylenetetramine		wL	20	60	1	0	0				0					
		wL	80	60	2						0					

Medium	Concentration %	Temperature (°C)	unalloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
Hydrobromic acid		20	3	3	3	3	3	2	3		2	3	2		3
Hydrocarbon, pure		20	0	0	0							0	0	0	
Hydrochloric acid	0.2	20	3	1LS	1LS	(1)				0				0	
	0.2	50	3	2LS	3LS					0				0	
	1	50	3	3	3					0				0	
	1	100	3	3	3					3				(1)	
	10	20	3	3	3	(2)				1				1	
Hydrofluosilic acid	5	40	3	1L	1L					1		(1)			3
	100	20	3	1L	2L					1	1	3	1		3
	100	100	3	2L	2L					1				2	3
Hydrocyanic acid	20	20	3	0	0	2	1	1	0	0	3	3	3	0	0
Hydrogen	100	20	0	0	0					0	0	0			0
	100	300	1	0	0					0	0	0			0
	100	500	3	0	0					0	0	3			0
Hydrogen fluoride	5	20	1	3	3	0	0	0	0	0	3			3	3
	100	500	3	3	3	1	2	2	3	1	3	3		3	3
Hydrogen fluoride acid HF-Alkylation	all	20	3	3L	3L	1	1	1	1	1	3	3	3	3	3
	10	20	3	3L	3L	1	1	1	1	0	2	3	2	3	3
	80	20	1			1	1	1	1	1	1			3	3
	90	30				1	0	1	1	1				3	3
Hydrogen superoxide	all	20		0	0	1	1	1	0	0	2			1	0
	30	20		0	0					0	1	2	1		
	30	70		0	0					0	1	2			
	85	<70		0	0					0					
	all	SP	2	2	0					0	3			1	
Hydroquinone		20				1	1	0	0						0
Hydroxylamine sulphate	wL	10		0	0										
	wL			0	0										
Hypochlorous acid		20			0										3
Illuminating gas		20	(1)	0	0		0								0
Inert gas	tr	20	0	0	0	0	0	0	0	0	0	0	0	0	0
	fe	20	0	0	0	0	0	0	0	0	0	0	0	0	0
Ink	100	20	1	0L	0L		0								3
	100	SP		1L	1L										3
Insulin	100	<40					0	0	0	0					
Iod	tr	100	0	0L	0L		0	0	0	0	3	3	3	3	0
	100	300	1	0L	0L	3				0				2	3
	fe	100	20	3	3L	2L	3	3		1					3
Iod, alcohol 7%		20	3	1L	0L	3					3	3	3		
Iod hydrogen acid	wL	20		3	3							3			3
Iodoform, steam	tr	60	0	0	0										0
	fe	20	3	0L	0L										0
Iod tincture		20		2L	0L										3
Iron-II-chloride	tr	100	0			3	3	3	2	0				0	
	wL	10	20	3	3	3	3	3		1	1	3	1	0	3
Iron-III-chloride	tr	100	0	0L	0L	2	2	2	1	0	3	3	3	0	3
	wL	10	Sp	3	3L	3L			2					0	
	wL	50	20	3	3L	3L		2		1				0	
	wL	50	<SP	3	3L	3L		3						0	
Iron-III-nitrate	wL	10	20	3	0	0				0					
	wL	all	20	3	0	0									
	wL	all	SP	3	0	0									
Iron phosphate (Bonder)		98		0	0										
Iron-II-sulphate	wL	all	20	0	0		1			1	1	3	1		1
	wL		SP	0	0	3	1			1					3
Iron-III-sulphate	wL	<30	20	3	0	0				0	3	3	3		3
		<30	<65	3	0	0				0					
		<30	80	3	1	0					3	3	3		3
		<30	SP	3	1	0									
Isopropyl nitrate		20										0			
Kerosene	100	20	(0)	0	0	0	0	0	0	0	(0)	(0)	(0)		
Lactic acid	wL	1	20	1	0	0					0	2	1	0	0
		1	SP		0	0								0	3
		10	20		0	0	(1)	0	0		1	2	1	0	0
		10	SP		3	2	3	3	(2)		1			0	3
		50	20		0	0	1		0					0	0
		50	SP		2	1			(1)		(0)			0	3
		80	20		0	0								0	0
		100	SP		2	1								0	3
Laquer (also varnish)		20	(1)	0	0	0	0				0	0	0	0	0
		100					0								(1)
Lead	100	360	(0)	(2)	(1)	(2)	2	0							0

Medium		Concentration %	Temperature (°C)	unallloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
			600	(0)	(2)	(1)	(3)		0							
Lead acetate	wL	10	20		0	0										0
	wL	all	SP		0	0										
Lead nitrate	wL		20		0	0										0
	wL		100		0	0										0
	wL	50	20		0	0										3
Lead suggar	all	20			0	0	1	1	2	0		2			0	3
	all	all	SP		0	0	1	1	2	0		2			0	3
Lead vinegar, basic	wL	all	20		0	0	1	1	2	0		2	3	2		3
	wL	all	SP		0	0	1	1	2	0		2	3	2		3
Lime-milk			20	0	0	0	0	0	0	0	0	0	0			
			SP	(0)	0	0	0	0	0	0	0	0	0			
Lemon acid	wL	5	20	2	1	0			0	0	0	0	0	0	0	
		konz.	SP		3	2	2	2	2	1	0	2			0	3
Lemonade			20		(1)	0			0	0	0					
Linseed oil			20	0	0	0		0	0	0	0	0	1	1	0	0
			200	(0)	0	0		0	0	0	0	(0)			0	
+ 3% H ₂ SO ₄			200	(3)	1	0			0	0	0				0	
Lithium	Schm		400	(0)	0	0			0	0	0					
Lithium chloride	wL	kg		3	3	1LS	0	1	0	0	0				0	
Lysoform			20		0	0			0	0	0					
			SP		0	0			0	0	0					
Lysol		5	20	(2)	0	0		0	0	0	0					0
		5	SP	(3)	0	0			0	0	0					0
Magnesium	Schm		650		3	3	3	3	3	3	3	3	3	3	0	3
Magnesium carbonate		10	SP	(0)							1	0			0	1
		ges	20	(0)	0	0									0	1
Magnesium chloride	tr	100	20	0	0LS	0LS					0				0	3
	wL	5	20	3	0LS	0LS			0	0	0	2			0	2
	wL	5	SP	3	2LS	2LS			0	0	0	2			0	3
	wL	50	20	3	2LS	1LS			0	0	0				0	3
	wL	50	SP	3	2LS	2LS			0	0	0				0	3
Magnesium hydroxyde			20	0	0	0	0	0	0	0	0	0	(0)	0	0	3
Magnesium sulphate		0.10	20	(0)	0	0										3
		5	20	2	0	0	1	1	1	0	0	0	3	0	0	0
		10	SP	3	0	0					1				0	0
		25	SP	3	0	0				1	1				0	0
		50	SP	3	0	0					1				0	0
Malonate acid			20		1	1	1	1	1	1	1				1	1
			50				1	1	1	1	1				1	
			100				3	3	3	3	3				3	
Manganese dichloride		5	100	3	0LS	0LS	1	1	1	0		3			0	0
		10	SP	3	0LS	0LS	1	1	1	0		3			0	0
		50	20	3	0LS	0LS			0	0		3			0	0
		50	SP	3	0LS	0LS			0	0		3			0	0
Meat			20		0	0										
Methyl acetate		60	SP	(0)							0					
Methyl alcohol		<100	20	(1)	0	0	0	0	0	0	0	0	0	0	0	0
		100	SP	(1)	1	1	0	0	0	0	0	0	0	0	0	1
Methyl chloride	tr	100	20	0	0	0	0	0	0	0	0	0	0	0	0	0
	fe		20	2	0LS	0LS			0	0	0				0	3
Milk	fresh		20	(0)	0	0	0	1	0	0	0	(0)	(2)	0		0
			70	(1)	0	0	2	2	0	0	0					(0)
	sour		20	(1)	0	0										
	sour		SP	(3)	0	0										
Mercury		100	20	0	0	0	0	(3)	0	0	0	3	3	3		(1)
		100	50	0	0	0	0	3	0	0	0					3
		100	370				(0)	3	0	0	0					3
Mercury chloride		0.1	20	3	0S	0S	0	3	0	0	0	3	3	3		3
		0.1	SP	3	1S	0S	1	3	1	0	0	3	3	3		3
		0.74	SP	3	2S	2S	1				0					3
		10	<80								1					3
Mercury cyanide	wL		20	(3)	0	0	3	(3)	3	2	0	3	3	3		
Mercury nitrate			20	(3)	0	0		(3)				3	3	3		3
Molybdenum acid	wL	10	25								1					
Monochloroacetic acid	wL	all	20	3	3	3	(1)	2	(1)	3	1	3	3	3	3	3
		30	80	3	3	3	(1)		(2)			3	3	3	3	3
Mustard			20	2	0L	0L										
Natural gas		100	20		0	0		0	0	0	0	0	0	0		
Naphtene		100	20	0	0	0	0	0	0	0	0					0
Nickel chloride		10	20	3	1LS	1LS	1	1	1	0	0	3	3	1		
		10	<60	3	1LS	1LS			0	0	0					

Medium	Concentration %	Temperature (°C)	unallloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium	
	80	<95								0						
Nickel nitrate	wL	<10	3	0	0	3	3	0	0	0	3			0	3	
		10	3	0	0	3	3	0	0	1	3			0	3	
		<100	3	0	0	3	3	3	0	1	3			0	3	
Nickel sulfate	wL	20	3	0	0	(3)	(1)	(1)	0	(1)	0	2	1			
		<60	3	0	0	(3)	(1)	0	0	1	0					
Nitric acid		10	3	0	0	2	2	2	0	0	0				3	
		1	3	0	0	0	2				3	3	3	0		
		1	SP	3	0	0	2				3	3	3	0		
		10	20	3	0	0	2	1	2	1	3	3	3	0	2	
		10	65	3	0	0	3	2	1	0	3	3	3	0		
		10	SP	3	0	0	3	3			1	3	3	0		
		15	20	3	0	0					(1)	3	3	0		
		15	SP	3	0	0					3	3	3	0		
		25	20	3	0	0					0	3	3	0		
		25	65	3	0	0					0	3	3	0		
		25	SP	3	0	0					3	3	3	0		
		40	20	3	0	0					0	3	3	0		
		40	65	3	0	0					1	3	3	0		
		40	SP	3	0	0					3	3	3	0		
	Nitric acid		50	3	0	0					0	3	3	3	0	
			50	65	3		1	1			1	3	3	3	0	
		50	SP	3	1	1					3	3	3	0		
		65	20	3	0	0					0	3	3	0		
		65	SP	3	(0)	2					3	3	3	0		
		90	20	3	0	0					1	3	3	0		
		90	SP	3	2	2					3	3	3	0		
		99	20	(1)	1	2					3	3	3	0		
	99	SP		3	3					3	3	3	0			
	Konz															
	.															
	5	20	3	0	0										0	
	5	25	3	0	0			1	0		2			0	2	
Nitro acid	5	20		0	0											
	5	75			1											
Nitro benzene	100	100				1	1	1	1	1					0	
Nitro gas	tr	alle	540							0	3	3				
Nitrogen		100	0	0	0	0	0	0		0	0	0	0	0	0	
		100	200	0	0	0	0				0	0	0	0	0	
		100	500	0	1	1	3									
		100	900	1			3									
Nitrogen oxide NOx	tr	100	20		0	0	3	3	0	0	0			0	0	
	fe	100	20											0	3	
Nitrohydrochlorid acid		20	3	3	3L	3L	3	3	3	3	3	3	3	2	3	
Novocaine		20		0	0											
Oil		20	0	0	0						0		0		0	
		SP	(0)	0	0						(0)		(0)		(1)	
Oil acid, tech.		20	(1)	0	0		0	0		0	0	1	(0)		0	
		150	(2)	0	0		0	0		(0)	(2)	1	1		0	
		180	3	1	0		1	0		(0)	3	(1)	3			
		235	3	2	0			(0)		(0)	3		3			
Oxalic acid	wL	2	3	0	0	2	1	1	1	0	0	2	1	0	0	
		2	80	3	0	0	1	1	1	0				3	1	
		5	20	3	0	0	2	1	1	0				0	1	
		5	80	3	1	0				0				3	2	
		10	20	3	1	0	2	1	1	0	(0)	2	1	2	3	
		10	SP	3	3	2	2	1	1	0	0	1	1	3	(3)	
		30	20	3	3	3	2	1	1	1	0					
		30	SP	3	3	3	2	1	1	1	1			3		
	50	20	3	3	3	2	1	1	1	0						
	50	SP	3	3	3	2	1	1	1	1			3			
Oxygen		100	(0)	0	0		0				0	0	0			
		100	20	0	0	0	0			0	0	0	0			
		100	500	(1)	0	0	0			0	3	3	3			
Palmitic acid	100	20		0	0	0	0	0	0	0	1	2	1	0	0	
Paraffin	Schm	120	(0)	0	0	0	0	0	0	0	0	0	0	0	0	
Perchloroethylene	wL	100	0	0L	0L	0	0	0	0	0	0	1	1	0	3	
		100	(3)	0L	0L	0	0	0	0	0	(0)	(0)	(0)	0	3	
Petrol	tr	20	0	0	0	0	0	0	0	0	0	0	0	0	0	
	tr	SP	0	0	0	0	0	0	0	0	0	0	0	0	0	
Petroleum (kerosine)		20	0	0	0	0	0	0	0	0	0	1	0	0	0	
		100	0	0	0	(2)	0	0	0	0	(0)	(1)	(0)	0		
Petroleum ether		100		0	0											
		100	SP		0	0										
Petroleum / fuel	100	20	0	0	0					0	0	0	0			

Medium		Concentration %	Temperature (°C)	unalloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium	
		100	SP		0	0					0						
Phenic acid (Phenol)	pure	100	SP	3	1	0	0	0		1	1				0	3	
	wL	90	SP	3	1	0	0	(0)			1				0	3	
	raw	90	20	(1)	0	0	0	0	0		0	0	1	1	1	0	
		90	SP	3	1	0	0	0	(0)			1					3
		50	20	(1)				(1)	0		0	0				0	0
		50	70	3	1		(1)	0			1					1	
Phenolsulphonic acid		30	20	(0)	0	0				0	0						
		30	120							0	0						
Phosphor	tr		20	0	0	0											
phosphor penta chloride	tr	100	20				(0)	(0)							1		
		100	60				(0)	(0)							1		
Phosphorous acid chem. pure	wL	1	20	3	0	0	0	1	0	0	0	2	3	3	0	3	
		5	20	3	0	0	0	1	1	0	0	2	3	3	0	3	
		10	20	3	0	0	2	1	1	0	0	2	3	3	0	3	
		10	80	3	0	0					0				1		
		30	20	3	0	0	0	1			0	1	1	1	0		
		30	SP	3	1	1	(2)	(1)			1	2	2	(1)	3		
		50	20	3	0	0	0	0	0		0	0		(0)	1		
		50	SP	3	2	1	(2)	3	3	2	1	1		(0)	3		
	80	SP	3	3	3	3	3	(0)	1	2	2			1	3	1	
Phosphorous acid technical		<30	25	3	0	0					0				1		
		<30	SP	3	0	0					1				3		
		50	25	3	0	0					0				1		
		50	SP	3	3	2					2				3		
		85	25	3	0	0					0				3		
		85	SP	3	3	3					1				3		
Pineapple juice			25		0	0	0	0	0	0	0						
			85				1	1	0	0							
Pit water (sour)			20	3	0	0						3	2	1		2	
Potassium	Schm	100	100	0	0	0				0						0	
			600		(0)					0						0	
			800		(0)					0						0	
Potassium acetate	Schm wL	100	292	3	0	0						3					
			20	(1)			0	0	0	0	0	1		1			
Potassium bi-chromate	wL	25	40	3	0	0	1	1	1	1	1	3	3	3		0	
		25	SP	3	0	0					1	3	3	3		(0)	
Potassium bi-fluoride	wL	ges	20		0L	0L											
Potassium bi-tartrate (Cream of tartar)	wL	kg		3	0	0	0									0	
	wL	hg		3	3	1	1									1	
Potassium bromide	wL	5	20	3	0L	0L	0	0				0	0	0		1	
		5	30	3	0L	0L	0	0	1	1	0	0	0	0		2	
Potassium carbonate	Schm wL	100	1000	3	3LS	3LS		0								3	
	wL	50	20	2	0	0	0	0	0	0	0	1	3	1	0	3	
	wL	50	SP	3	3	3		0	0	0	1	3	3				
Potassium chlorate	wL	5	20	(2)	0L	0	1	1	1	0		(1)	(1)	(1)	0	0	
	ges		SP	3	0L	0	3	3	3	0	0	1			0	1	
Potassium chloride	wL	5	85	(2)	0L	0L	1	1	2	0	1	1	2	1	0	3	
		30	20	(1)	0L	0L	0	0	0	0	1	1	2	1	0	3	
		30	SP	2	1L	0L	0	0	0	0	1	(2)	(2)	(1)	0	3	
Potassium chromate	wL	10	20	0	0	0	0	1	0	0	0	0				0	
		10	SP	(1)	0	0	0									0	
		<30	30	0	0	0	0	1	0	0							
Potassium chrom. sulph.	wL	ges	20	3	1	0	1	0					3			3	
	ges		SP	3	3	3	2	(1)					3			3	
Potassium cyanate	Schm wL	100	750	3				3				3	3	(0)		1	
	wL	10	20	(0)	0	0		(1)									
Potassium cyanide	wL	10	SP	3	0	0						3	3	3		3	
Potassium hydroxide	wL	20	20	0	0	0	0	0		0	0	1	2	1	0	3	
		20	SP	0S	0S	0S	0	0	1	1	1	3			0	3	
Potassium hydroxide		50	20	0S	0S	0S	0	0	1	1	0				3	3	
		50	SP	0S	3	3	0	0	3	1	1	3			3	3	
	hg			0S	0S	0S					1				3	3	
	Schm	100	360	3	3	3	0		3		3				3	3	
Potassium hypochloride	wL	all	20	3	2L	0L	3	3	3	3	0				0	3	
	all		SP		3L	3L	3	3	3	3	1				0	3	
Potassium iodide	wL		20	(0)	0L	0L	3	3	1	0	0					3	
			SP	(0)	0L	0L	3	3	1	0	0					3	
Potassium nitrate (Saltpetre)	wL	25	20	0	0	0	1	1	1	0	1	0	0	0		(0)	
		25	SP	0	0	0		1	1	0	1	0	(0)			0	
	ges		20	0	0	0	1	1	1		1						
	ges		SP	2	0	0					1						
Potassium nitrite	all	SP		1	0	0	1	0	0	1	0	1	1	1			
Potassium oxalate	all	20			0	0	0	0	0	0	0						

Medium	Concentration %	Temperature (°C)	unalloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
Potassium perchlorate	wL	25 75	SP	0	0	0		0	0	1 1					
Potassium permanganate	wL	10 all	20 SP	0 3	0 1	0 1	(1) 1	1	0	0 1	0			0	0
Potassium persulphate	wL	10	25	(3)	0	0	(3)	0		0	(3)	(3)			(3)
Potassium sulphate		10 all wL wL	25 SP 20 90		0 0 3 3	0 0 2 3	(1)			1	0	1	0 0	0 0	(1) 3
Propane		100	20	(0)	0	0	0	0	0	0	0	0	0	0	0
Pyrogallol		all all	20 100	(0) 3	0 (0)	0 0				0 1			(0) (0)		0 0
Quinine-bi-sulphate	tr		20	3	3	1	1		0	0	0			0	
Quinine sulphate	tr		20	3	0	0	1		0	0	0			0	
Resina (natural)		100 100	20 300		0 0L	0 0L	0				0 1	1	0 1		
Salicylic acid	tr wL ges	100 1 ges	20 80 20	1 (3) (3)	0 0 0	0 0 0	0 0 0				(1)		(1)		0 0 1
Sea water			20 50 SP	(1) (1) (2)	0LS 1LS 2LS	0LS 0LS 1	0 0 0	0 0 0	0 0 0	0 0 0	0 (0) (1)	(0) (1) (1)	0 0 (0)	0 0 0	(0) (0) (1)
Sewages (w.o.H ₂ SO ₄) (with H ₂ SO ₄)			<40 <40		0 0	0 0	0 0	0 0	0 0	0 0	2 3	3 3	2 3	2 3	0 0
Silver bromide	wL	100 10	20 25	3 3	2LS 0LS	2LS 0LS	1		0	0	3	3	3	0	3
Silver chloride	wL	10	20	3	3LS	3LS			0	1	3	3	3	0	3
Silver nitrate	wL wL wL Schm	10 10 20 100	20 SP 20 250	3 3 3 2	0 0 0 0	0 0 0 0	3 3	1	0	1	3	3	3	0 0 0	3
Sodium		100 100 100	20 200 600	0 0 (3)	0 0 0	0 0 0									0 (1)
Sodium acetate	wL ges	10 ges	20 SP	0 (2)	0 0	0 0	0	0	0	0	(1)			0 0	0
Sodium aluminat	wL		20	0	0	0									
Sodium bi-carbonate	wL	10 10 20	20 SP SP	0 (1)	0 0	0 0	1	1	1	0	1	2	1	0	0
Sodium bi-sulphite		10 10 50 50	20 SP 20 SP	3 3 3 3	0 2 0 0	0 0 0 0	0	0	0	1	3	1	(0)		(0) 3
Sodium bromide	wL	all all	20 SP	3 3	3LS 3LS	2LS 2LS				0 1					3 3
Sodium carbonate	wL kg kg Schm	1 1 kg kg	20 75 20 SP 900		0 0 0 0 3	0 0 0 0 3	0	0		0	1	2	1	0	3 3
Sodium chlorate		30 30	20 SP	2 3	0LS 0LS	0LS 0LS								0 (0)	
Sodium chloride	wL	3 3 10 10 kg kg	20 SP 20 SP 20 SP	(1) (2) (2) (3) (2) (2)	0LS 0LS 0LS 0LS 0LS 2LS	0LS 0LS 0LS 0LS 0LS	1 1 1 1 1 1	0 0 1 1 0 0	1 1 1 1 1	0 1 0 1 0 1	0 1 1 1 0 1	1 2	1	(0) (0) 0 1 0 (0)	3 1 2 2
Soap	wL wL wL wL	1 1 10 100	20 75 20		0	0	0	0			0 0	1 1	0 0		0 0
Sodium citrate	wL	3.5	20		0	0	1		1	0	0			0	3
Sodium cyanide	Schm wL	100 ges	600 20	(1) 3		0	0	3 3			3 3	3 3	3 3	0	3 3
Sodium dichromate	wL	ges	20			0	0				3	3	3	0	
Sodium fluoride		10 10 kg	20 SP 20	(0) (0)	0LS 0LS 0LS	0LS 0LS 0LS	0	0	0 0 0	0 0 0		(3)			
Sodium hydroxide	fest wL	100 5	320 20	(3) 0	3 0	3 0	0 0	1 0	0 0	0 0	0 0	1	(0)	0 0	3 3

Medium		Concentration %	Temperature (°C)	unallloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
		5	SP				0	0	0	0	0	1	2	1	0	3
		25	20	0	0S	0S	0	0	0	0	0				0	3
		25	SP	2	1S	1S	0	0	0	1	1				0	3
		50	20	0	1S	1S	0	0	0	0	0				0	3
		50	SP	2	2S	2S	0	0	0	1	1				0	3
Sodium hyposulfite		all	20	2	0	0	1	1	1	0	0	2			0	
		all	SP	2	0	0	1	1	1	0	1	2			0	
Sodium nitrate		Schm	100	320	3	0	0	1			3					0
		wL	5	20	(2)	0	0	1	1	0	0					0
		wL	10	20	1	0	0	1	1	0	0	1	2	1	0	0
		wL	30	20	1	0	0	1	1	0	0					0
		wL	30	SP	(1)	0	0	1	1	0						0
Sodium nitrite		wL	100	20		0	0	2	2	2	1	0			0	0
Sodium perborate		wL	ges	20	(1)	0	0				1				1	
Sodium perchlorate		wL	10	20	(2)	OLS	OLS				0					
			10	SP	(3)	OLS	OLS				0					
Sodium peroxide		wL	10	20	3	0	0	0	1	1	1	3			3	3
		wL	10	SP	3	0	0	1	0	1	1	3			3	3
Sodium phosphate		wL	10	20		0	0	0	0			1	2	1	0	(0)
			10	50		0	0	(0)							0	(0)
			10	SP		0	0					3			0	(1)
Sodium pochloride (javel water)		10	25	(1)	1LS	OLS			(0)	(0)	(0)	2	3	(1)	0	3
		10	50	(3)	1LS	OLS			(0)	1	1				0	3
Sodium salicylate (Aspirin)		wL	ges	20		0	0									
Sodium silicate		ges	20		0	0	0	0	0	0	0	0	1	0	0	(2)
Sodium sulfate		wL	10	20	3	0	0	0	0	0	0	0	0	0	0	0
			10	SP	3	0	0				1					
			30	20	3	0	0				1					0
			30	SP	3	0	0				1					
			kg		3	0	0	1	1	0	0				0	
			hg		3	0	0	0	0	0	0				0	1
Sodium sulfide		wL	20	20	3	0	0	1	3	0	0	2	1	2	0	3
			20	SP	3	0	0			(0)					0	3
			50	SP	3	0	0		3	(0)					0	
		wL	kg	20	3	(0)	(0)	1		1		3			0	
			hg		3	3	1								0	3
Sodium sulfite		wL	10	20	(3)	0	0		0			(1)	(3)	(1)		0
			50	20	(3)	0	0		0							
			50	SP		0	0									
Sodium thiosulfate		wL	1	20	1	0	0	0	0							0
			25	20	3	0	0	0	0							0
			25	SP	3	0L	0L	0	0							1
			100	20	3	0	0	1	1	1		2				
Sodium triphosphate		wL	10	20							1					
			10	SP							1					
			25	50							1					
Soft soap			20		0	0										
Spinning bath		<10	80	3	2	1					0					3
		<10	80	3	3	3					0					3
Steam		fe	100	2	0	0	0	0	0	0	0	0	0	0	0	1
		fe	200	2	0	0	0	0	0	0	0	0	2	0	0	1
		tr	150	0	0	0	0	0	0	0	0	0	0	0	0	1
		tr	600	2	0	0	2								0	1
Stearic acid		100	20	1	0	0	0	0	0	0	0	1	2	1	0	0
		100	80	3	0	0		0	0	0	0					3
		100	130	3	0	0		1		0	0					0
Suggar		wL	20	1	0	0			0	0	0	0	0	0	0	0
		wL	SP	1	0	0			0	0	0	1		0	0	0
Sulphite lye			20		0	0										
			80		2	0										
			140		3	0										
Sulphur		tr	100	20	0	0	0			0	0	1	0	1	0	0
		Schm	100	130	(1)	0	0	3	3	(0)	0	3	3	3	0	
		Schm	100	445	3	2	2				0				(0)	
		fe	20	3	1	0	3	3				3	3	3	0	
Sulphur chlorine		tr	100	30	0	OLS	OLS	0	0			(0)	(0)	(0)	0	3
		tr	100	SP		OLS	OLS	0								
Sulphur dioxide		tr	100	20	0	0		1				0	0	0	0	0
		tr	100	400	1	2	0						3			
		tr	100	800	3	3	2	3								
		fe	20	2	0	0						1	3	1	0	1
			400	3	1	1	3									0

Medium		Concentration %	Temperature (°C)	unalloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
Sulphur acid		1	20	3	1	0	0	1	1	0	0	1			0	1
		1	70	3	1	0			2	1	0				(0)	
		1	SP	3	1	1					1				3	
		10	20	3	2	1					0					
		10	20	3	2	1	1	1			0		2	1		1
		10	70	3	2	2	2	2			0					(3)
		40	20	3	1	1		1			0		2	3	2	1
		80	20	3	3	3		1			0		(1)	3	1	3
		96	20	1	0	0	1	2			0		1			3
	96	SP	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Sulphur hydrogen H ₂ S	tr	100	20	1	0	0	0	1	1	0	0	0	0	0	0	0
	tr	100	100	3	0	0						0				0
	tr	100	>200	3	0	0										0
	tr	100	500													0
	tr	100	20	3	0	0	1	0	0			0	3	2	3	0
Sulphur monoxide		100	20	1	0	0	(0)	(0)				1	0	1	1	0
		100	SP	2	0	0	(0)	(0)								0
Sulphur trioxide SO ₃	fe	100	20									0	0	0	3	0
	tr	100	20				3	3	3	2	0	0	0	0		
Sulphurous acid SO ₂ (Gas)	fe		200	3	2	0	3	3	0	0	0	3	3	3	0	2
	fe		300	3	2	0										
	fe		500	3	2	0										
	fe		900	3	3	2										
Sulphurous acid H ₂ SO ₃	wL	1	20	3	0	0	2	2	1		0					1
	wL	5	20	3	0	0			1		0	1	1	1	0	1
	wL	10	20	3	0	0					0					0
	wL ges	20	20	2	0	0		2			0				1	3
Tannic acid	wL	5	20	2	0	0	0	0	0			0	1	0	0	0
		5	SP	3	0	0										
		10	20	2	0	0	1	1	1	0	0	0	1	0	0	0
		10	SP	3	0	0										
		50	20	3	0	0		0	0			0	1	0		
		50	SP	3	0	0										
Tar			20	0	0	0			0	0	0	0	1	0	0	1
			SP	2	0	0						0	1	0	0	1
Tin	Schm	100	300	2	0	0	3	3					3		0	3
	Schm	100	400	3	1	1										
	Schm	100	500	3	3	3										
	Schm	100	600		3	3									1	
Tin chloride			20	3	1LS	1LS	3	3			0					3
			SP	3	3LS	3LS					1					3
Titanium sulphate		10	20								1					
		10	SP								1					
Toluene		100	20	0	0	0		0				0	0	0		0
		100	SP	0	0	0		0				0	0	0		0
Tri-chloro acetic acid		>10	20		3	3					0					
		50	20		3	3			0	0	0					
		50	100		3	3					1					
Trilene	tr	100	20	0	0L	0L	0				0	0	0	0		0
	tr	100	70		0L	0L					0					3
	tr	100	SP		0L	0L	0				0	1	1	1		3
	fe		20	2	0L	0L	0				0	1	2	1		3
	fe		SP	3	1L	0L	0				0	1	2	1		3
Trinitrophenol			20	(0)	0	0	0	0	0	0	0	(0)	(0)	(0)	0	0
			200	3			0	0	0	0	0					
Trinitrophenol	Schm	100	150	3												3
	wL	3	20	3	0	0										1
		25	20	3	0	0	3	(1)				3	3	3		
		ges	20	3	0	0	3	3	3	2	0	3	3	3		
Turpentine oil		100	20	0	0	0						0	1	0	0	0
		100	SP	1	0	0						0	1	0	0	0
Tyoglykolacid			20			1										
			SP			1										
Urea		100	20	0	0	0	0	0			0				0	0
		100	150	3	1	0		1	3		1				0	3
Uric acid	wL	konz	20		0	0		0	1	0	0	0			0	3
	wL	konz	100		0	0		0	1	0	0	0			0	3
Urine			20		0L	0L	0	0								1
			40		0L	0L	0									
Vaseline		100	≤SP	0	0	0										0
Vegetable soup			SP		0	0										
Vinegar			20		0	0						1	3	1		0
			SP		0	0						3	3	3		3

Medium	Concentration %	Temperature (°C)	unallloyed steels	18/8-Steel	18/8+Mo-Steel	Nickel	Monel 400 2.4360	Inconel 600 2.4816	Incoloy 825 2.4858	Hastelloy C 2.4819	Copper	Tombak	Bronze	Titanium	Aluminium
Vinegar acid	10	20	3	0	0	2	1	1	0	0	1	3	1	0	0
	10	SP	3	2	0		1	1	0	0				0	2
	20	20	3	0	0	2	1	1	0	0				0	0
	20	SP	3	0	0		1	1	0	0				0	0
	50	20	3	0	0	2	1	1	0	0			0	1	0
	50	SP	3	3	0	2	1	1	0	0	3			0	2
	80	20	3	0L	0L		1	1	0	0				1	0
	80	SP	3	3L	0L		1	2	1	0				0	2
	99	20	3	0L	0L	2	1	2	0	0				0	0
	99	SP	3	1L	1L	2	1	1	0	0				0	0
Vinyl chloride		20 400	0	0	0					0			0		
Water															
H ₂ O dest.		20		0	0	0		0	0	0					0
dest.		SP	1	0	0	0	0	0	0	0	0	0			1
River water		20		0	0	0	0	0	0	0					0
River water		SP		0	0	0									1
Tap water hard		≤SP	1	0	0						0				1
Tap water soft		≤SP	0	0	0						0	1	0		1
Tap water alkaline		≤SP	2	0	0						0				3
Pit water sour		20	1	0	0	1					1	2			2
Pit water sour		20	1	0	0	2					2	3			3
Mineral water		20	1	0	0										3
Rainwater flowing		20	2	0	0	0					0				1
Rainwater still		20													3
Sweat		20	1	0	0										3
Sea water		20	1	0LS	0LS	0	0	0	0	0	0	0	0	0	1
		SP	2	2LS	1LS	0	0	0	0	0	1	1	0	0	3
Water condensate, pure		<200	0	0	0	0	0	0	0	0	0	0	0	0	
plus CO ₂		<200	2				1			1	0	1	0		
plus O ₂		<200	2			1	0			1	0		0		
plus C ₁		<200	2	2LS	2LS						2				
plus NH ₃		<200	2				0					3	2	0	
Wattle	wL	20	2	0	0		0	0	0						0
		SP	3	0	0		0	0	0						
Whiskey		20													3
Wine acidity	wL	3	20	0	0					0				0	0
	wL	10	20	1	0	0	1	1	0	0	0	2	0	0	2
	wL	10	SP	3	0	0	2	2	0	1	3	3		0	2
	wL	25	20	0	0		0	0	0	0				0	2
	wL	25	SP		1	0	1		0	1				0	3
	wL	50	20		0	0				0				0	2
	wL	50	SP		1	0				1				0	3
	wL	75	20		0	0				0				0	2
	wL	75	SP		2	2				1				0	3
	wL	all								1				0	3
Wine vinegar	wL	5	20	0	0	0		0	0	0	1	1	1		0
Wine, white & red		20	2	0	0	2		0	0	0		3	3		3
		SP	3	0	0	3		0	0	0		3	3		3
Xylene		20	0	0	0										0
		SP	0	0	0										0
Yoghurt				0											3
Zinc	Schm	100	500	3	3	3	3	3							3
Zinc chloride	wL	5	20	3	3LS	2LS	1	1	1	0	0	2	3	2	0
	wL	5	SP	3	3LS	2LS	1	2	2	0	1	2	3	2	0
Zinc silicone sulfide	wL	30	20								0				
	wL	30	65								2				
	wL	40	20								0				
	wL	50	65								3				
Zinc sulphate	wL	10	20	2	0	0	1	1	1	0	0	1	3	1	0
	wL	25	SP	3	0	0	1	1	1	0	1	2		0	3
	wL	hg	20		0	0	1	1	1	0	1	1		0	1
	wL	hg	SP		0	0					1				3
Zyanide baths		25												0	