

Chemical resistance

1= excellent resistance
2= good resistance
3= mediocre resistance
x= not resistant

	Ester- PUR	Ether- PUR	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene	Kapton®	TPV	PO spez
Medium												
accumulator acid (sulfuric acid 30%)	x	2	x	1	1	1	1	1	2	1	1	1
acetaldehyde	3	2	2	3	2	x	2-3	1	3	1	1	2-3
acetamide	x	x	2	2	1-2	x	1	1	1	1	1	1
acetic acid 10%	3	2	2	1	2	3	1	1	1	1	1	1
acetic acid 100% (conc.)	x	x	2-3	3	x	x	x	1	x	1	1	x
acetic acid 25%	x	3	2-3	1-2	2	x	1	1	1-2	1	1	2
acetic acid 3%	2	1	1	1	2	1	1	1	1	1	1	1
acetic acid 50%	x	x	2-3	2	2	x	3	1	2-3	1	1	3
acetic acid anhydride 50%	x	x	1	1	x	x	3	1	2	1	1	x
acetic acid ethyl ester (ethyl acetate)	x	x	2	x	x	x	2	1	3	1	1	2
acetone	3	x	2	2-3	x	3	1-2	1	3	1	1	2
acetyl salicylic acid (aspirin)					1	1	1					1
acetylacetone	3	x	x		x	x	x	1		1	1	x
acetylene gas	1	1	2	2	1	1	3	1	2	1	1	3
acids s. spez. designation, applicable in general	x	3	2	2-3	1	2-3	1-2	1	x	1	2-3	1-2
acrylic acid ethyl ester (ethyl acrylate)	x	x	2	1	x	x	x	1	x	1	1	
acrylonitrile	x	x	2	3	2	x	1	1	3	1	1	1
adipic acid (hexane diacid)	3	1-3	x	1	1	1	1	1	2	1		1-2
adipic acid diethyl ester				1	x	x		1		1	1	
air, atmospheric, oil-free, to +°C	85	80	175	120	200	70	90	200		200	125	
air, oil-saturated, to +°C	85	80	175	120	200	70	90	200		200	125	
alcohols s. specific designations, applicable in general	2	2	1-2	1	1-2	1-2	1-2	1	2	1	2	1-2
aliphatics s. gasoline low aromatic, applicable in general	2	2	x	x	1	3	x	1	x	1		x
allyl alcohol (propenol)	3	3	x	1-3	3	3	1	1			1	1-2
allyl chloride (3-chloropropene)	x	x	1		x	x	x	1		1		
alum (potassium aluminium sulphate)	2	1	1-2	1	1	1	1	1	2	3	1	2
aluminium acetate, aqu. (basic aluminium acetate)	x	3	x	1	x	1	1	1	1	1	1	1-2
aluminium chloride, aqu.	3	1-2	2	1-2	1	1	1-2	1	1	1	1	2
aluminium fluoride	3	3	2	1	1	1	1	1	1	1	1	1
aluminium hydroxide	3	2	1	1	1	1	1	1	1	1	1	1
aluminium nitrate, aqu.	3	2	2	1	1	2	1	1	1	1	1	1
aluminium phosphates, aqu.	2	1	1	1	1	1	1	1	1	1	1	
aluminium sulphate aqu.	3	2	1	1	1	1	1	1	1	1	1	1
amines s. specific designations												
amino acetic acid (glycine)	x	x	2-3	2-3	1	1		1			1	1
ammonia nitrate, aqu.	3	2	1	3	3	2	1	1	2	1	1	2
ammonia, aqu. 25% (ammonia water)	x	x	1	3	1	1	1	1	2	x	1	1-2
ammonia, gaseous 20°C	x	3	1	2	1	1	1	1	1	1	1	2
ammonia, liquid 100%	x	x	3	2	x	3	2	1	1	1	1	3
ammonium acetate, aqu.	x	x	3-x	1	x	1	2	1			1	3
ammonium carbonate, aqu.	x	x	2-3	1	1	1	1	1	1	1	1	2
ammonium chloride, aqu. 3%	3	1	1	2	1	1	1	1	1	1	1	2
ammonium diphosphate, aqu.	3	1	1-2	1	1	1	1	1	1	1	1	1-2
ammonium fluoride, aqu.	x	x		1	1-2	1-3	1	1			1	2
ammonium hydroxide, aqu. (ammonia, aqu.)	x	x	1	3	1	1	1	1	2	x	1	1-2
ammonium metaphosphate	2	1	1	1	1	1	1	1	1	1	1	2
ammonium nitrite	1	1	2	1	1	2		1	1	1	1	2
ammonium persulphate, aqu.	3	2	2-3	2	1	1	1	1	2	1	1	2
ammonium phosphate, aqu.	3	1	1	2	1	2	1	1	1	1	1	2-3
ammonium sulphate	2	1	1	1	1	1	1	1	1	1	1	2
ammonium thiocyanate	3	2	1		1	1	1	1		1	1	2
amyl acetate (acetic acid pentyl ester; banana oil)	x	x	3	x	x	x	2	1	3	1	1	3
amyl alcohols (pentanols)	3	3	3	1	2	1	1-2	1	1	1	1	2
amyl borate	x	x	x	1	1			1	1	1	1	
amyl chloride	x	x	3	x	2	x	x	1	x	1	2	x
aniline (aminobenzene)	x	x	2	3	1-2	2-3	2-3	1	x	1	1	3
aniline dyes	x	x	2-3	2-3	1	1	3	1	2	1	1	
aniline hydrochloride	x	x	x	x	x	x	2-3	1	x			x
animal fats (oils and greases, animal)	1	1	3	1-2	1	2	2-3	1	3	1	2	3
anise seed oil						x	3-x	1	x			3
anol (cyclohexanol)	3	x	2-3	1-2	1	x	1	1	2	1	2	1-2
anone (cyclohexanone)	3	x	x	x	x	x	2-3	1	x	1	2-3	3
anthraquinone sulfonic acid, aqu.	x	x	x	1	1	1	1	1			1	
antifreeze s. precise chem. Designation												
antimony chloride 50%	3	2	x	1	1	1	1	1	1	1	1	2
antimony chloride, anhydrous	x	x	3	1	1-2	1	1	1			1	2
apple acid, aqu. (apple juice)	x	3	1	1	1	1	1	1	1	1	1	1
aqua fortis (nitric acid 50%)	x	x	x	3	1-2	2-3	2-3	1	x	1	1-2	3
aqua regia	x	x	3	3	2	2-3	2	1	3	1	3	3
Arctones = ICI Freontypes, ask for our detailed advice												
argon gas	1	1	1	1	1	1	1	1	1	1	1	1
aromatics s. benzene, toluene, xylenes and homologues, applicable in general	x	x	x	3-x	1-2	x	3	1	2	1	3-x	x
arsenic acid	3-x	3-x	1	1	1	1	1	1	1	1	1	2

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asphalt (pitch)	2	2	2	2	1	2	1	1	2	1	2-3	2
ASTM fuel A	1	1	x	1	1	3-x		1	1		x	
ASTM fuel B	x	x	x	x	1	3-x		1	x		x	
ASTM fuel C	x	x	x	x	1	3-x		1	x		x	
ATS-brake fluid	x	x	3	1	1	1	1	1			2-3	
backing-powder (sodium bicarbonate, aqu.)	x	2	1	1	1	1	1	1		2	1	1
bacon fat I)	1	1	2	3	1		1	1	x	1	1	
barium chloride, aqu.	2	1	1	1	1	1	1	1	1	1	1	1-2
barium hydroxide	3-x	2	1	1	1	1	1	1	1	1	1	1-2
barium sulphate (barite)	1	1	1	1	1	1-2	1	1	1	1	1	2
barium sulphide	2	2	1	1	1	1	1-2	1	1	1	1	2
barm (yeast), aqu.	x	1	1	1	1	1	1	1			1	
bases (lyes) s. exact designation, applicable in general	x	2	2	1	2	1	1-2	1	1-2	1	1-2	1-2
beer I)	2	1	1	1	1	1	1	1	1	1	1	1
benzaldehyde	3	3	2-3	x	2-3	3	2	1	x	1	2	2-3
benzene s.also gasoline	3-x	3-x	x	3-x	2-3	3-x	3-x	1	x	1	x	x
benzoic acid, aqu.	x	x	3-x	x	1	1	1	1	x	1	1	1
benzyl alcohol	x	x	1	2-3	1	3	3	1	3	1	2	x
benzyl benzoate	x	x	1	1	1			1	x	1	2	
benzyl chloride	x	x	2	x	1	x	2-3	1	x	1	x	
bicarb, bicarbonate of soda (sodium bicarbonate)	x	2	1	1	1	1	1	1	1	2	1	1
bio-gas clean	2	3	3-x	2-3	1	2	1	1	2-3	1	1	
bio-gas (marsh-gas)	*2)	*2)	*2)	*2)	*2)	*2)	*2)	*2)	*2)	*2)	*2)	*2)
biphenyl (diphenyl)	x	x	x	3	1	x	2	1	x	1	3	
biphenyls, polychlorinated (pyranols, transformer oils)	2	2	x	x	1	3	3	1	2-3	1	x	x
bismuth carbonate	1	1	1		1	1	1	1	1	1	1	2
bisulphite lye containing SO2					1	1	1	1	1	1	1	
bitter-salt (magnesium sulphate)	1	1	1	1	1	1	1	1	1	1	1	2
bitumen 20°C (s. also hot bitumen)	2	2	3	3	1	x	1	1	x	1	2-3	
black lye (cellulose extraction)	x	x	x	1	1			1				
Blanc-fixe (barium sulphate)	1	1	1	1	1	1-2	1	1	1	1	1	2
bleaching lye (Javelle-lye, potassium hypochlorite)	3	2	2	2-3	1	1	3	1	2-3	3	1-2	
blood					1	1	1	1				
bone oil	1	1	2-3	x	1	2		1	x		x	
borax (sodium borate)	1	1	1-2	1-2	1	1	1	1	1	2	1	1
boric acid, aqu.	3	1	1	1	1	1	1	1	x	1	1	1
brake fluid, ATS-	x	x	3	1	1	1	1	1			2-3	
brake fluid, glycol-ether-based	x	x								1	1	
brandy, all kinds I)	2	1	1	1	1	1	1	1	1	1	1	
brine (table or common salt solution) I)	3	1	1	1	1	1	1	1	1	1	1	1
bromine	x	x	x	x	1	3	x	1	x	1	3	x
bromine water	x	x	x	2-3	1	x	x	1	x	1	3	x
bromobenzene	x	x	x	x	1	x	x	1	x	1	x	x
butadiene	2	1-2	x	2	2	3	2-3	1	2	1	2	x
butan diols (butylene glycols)	1	1		1	2	3	1	1			1-2	
butane diacid	x	3	3	1	1	1	1	1			1	
butane gas	1	1	3-x	2	1	2	3-x	1	2	1	2	x
butane, liquid	1	1	3	1	1	2	1	1	1	1	2	
butanol (butyl alcohol)	3	3	2	1	2-3	1	1-2	1	1	1	1	1-2
butanone (methyl ethyl ketone MEK)	x	x	x	x	x	x	2	1	3	1	1	2-3
butine diol	1	1		2	3			1				
butter milk I)	1	1	1	1	1	1	1	1	2-3	1	1	
butter I)	1	2	2	2	1	2	1	1	2	1	2	1-2
butyl acetate (acetic acid butyl ester)	x	x	3	3	x	x	3-x	1	x	1	2	2-3
butyl benzoate	1	1	x	x	1			1	x	1	2	
butyl carbitol	x	x	2-3	2	1			1	3	1	2	
butyl ether	x	3	3		x	1	1	1	2-3	1	2	
butyl glycol	3	3	2		1	x	1	1	x	1	2	
butyl oleate	x	x	1	x	1			1	x	1	2	
butyl phenols	x	x		x	3	x	1-2	1				x
butyl stearate	1	1	1	2-3	1	1	x	1	x	1	2	2
butylamine	2-3	2-3	2-3	x	x	x	3	1	3	1	1	
butylene, liquid (butene)	2-3	2-3	2-3	3	1	1	x	1	x	1	1	3-x
butyraldehyde	x	x	3	3	x		1	1	3	1	1	x
butyric acid, aqu. I)	x	x	3	2-3	2	2	x	1	x	1	1	x
calcinated soda (sodium carbonate anhydrous)	2	2	1	1	1	1	1	1	1	2	1	1
calcium acetate	2	2	2	2	x			1	2	1	1	
calcium bisulfate, aqu.	3	1	3	1	1	1	1	1	1	1	1	1
calcium bisulfite, aqu.	3	2	1	1	1	2	1	1	1	1	1	1
calcium carbonate	1	1	1	1	1	1	1	1	1	1	1	1
calcium chloride, aqu.	3	1	1	1	1	1	1	1	1	1	1	1
calcium hydroxide, aqu. (slaked lime)	3	2	1	1	1	2	1	1	1	1	1	1-2
calcium hypochlorite, aqu.	x	x	2-3	1-2	1	1	1	1	3	1	1-2	1-2
calcium nitrate	1	1	2	1	1	1	1	1	1	1	1	1-2

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	Ester- PUR	Ether- PUR	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene	Kapton®	TPV	PO spez
Medium												
calcium oxide = calcinated lime	1	1	1	1	1	1	1	1	1	1	1	1
calcium phosphate, aqu.	2	2	1	1	1	1	1	1	1	1	1	1
calcium sulfate (gypsum), aqu.	3	1	1	1	1	1-2	1-2	1	2	1	1	2
calcium sulfide	2	1	2	1	1			1	1	1	1	
camphor (camphor oil)	x	x		3-x	3-x		3	1				x
cane-sugar	3	1	1	1	1	1	1	1	1	1	1	1
carbamide, urea, aqu.	x	x	x	1	1	2	1	1			1	1
carbitol (diethylene glycol monoethyl ether)	x	x	2	2	2	3	1	1	3	1	1	1
carbolic acid (phenol)	3-x	3-x	3	2-3	1	x	x	1	3	1	2-3	x
carbolineum, aqu.	x	x	x	1	1	3	1	1	1	1	1	
carbon bisulfide	3	2	x	x	1	2-3	x	1	x	1	2	x
carbon dioxide solid (dried ice -80°C) resistant, but elastomers and plastomers become stiff to brittle												
carbon dioxide, gaseous, wet and dry	1	1	1	1	1	1	1	1	1	1	1	2
carbon monoxide	1	1	1	2-3	1	1	1	1	2	1	1	2
carbon tetrachloride (tetrachloromethan)	x	3	x	x	1	x	x	1	x	1	x	x
carbonic acid s. carbon dioxide												
castor oil I)	1	1	1	1	1		2-3	1	2	1	2	1
caustic lime (calcium hydroxide)	x	x	2-3	1-2	1	1	1	1	3	1	1-2	1-2
caustic potash s. potassium hydroxide												
caustic soda s. sodium hydroxide												
cellulose acetate (acetyl cellulose)	2	1	1				1	1	1	1	1	
cellulose (hydraulic oil, phosphate ester based)	x	x	2-3	x	1	x	x	1	x	1	1	
ceolithe	x	x	1	x	1			1	1		1	
chile salpêtre (sodium nitrate)	2	1	3	1	1	1	1	1	2	1	1	1
china wood oil (wood oil)	3	2	3	3	1	3	2	1	x	1	2	
chloral hydrat	x	x		2	3	x	1	1	2	2		
chloramine	2	2		1	1						1	
chloric acid, aqu.				1	x	1	1	1	1	1	1	
chlorinated hydrocarbons s. specific designations, applicable in general	x	x	x	x	2	x	x	1	x	1	x	x
chlorinated lime (calcium hypochlorite)	x	x	2-3	1-2	1	1	1	1	3	1	1-2	1-2
chlorinated water 3%	x	3	2-3	3	1	1	2	1	x	1	1-2	
chlorine dioxide	x	x	3	1	1	2-3	x	1	1	1		x
chlorine, dry	x	x	x	2-3	1	3	x	1	3-x	1	1-3	x
chlorine, wet	x	x	x	2-3	1	x	x	1	x	1	1-3	x
chloroacetic acid (monochloroacetic acid)	x	x	x	2	x	2	x	1	3	1	2	x
chlorobenzene (monochlor benzene)	x	x	x	x	1	x	3	1	x	1	x	
chlorobiphenyl (clophen)	x	x	2	x	1	x	1	1	x	1	3	2
chlorobromomethan	x	3	x	x	1	x	2	1	x	1	3	
chlorocalcium (calcium chloride)	3	1	1	1	1	1	1	1	1	1	1	1
chloroethanol (ethylen chlorhydrine)	x	x	x	2	x	x	3	1	x	x	2	x
chloroethyl (ethyl chloride)	x	x	x	x	1-2	3-x	x	1	3	1	2-3	x
chloroform (trichloromethane)	x	x	x	x	1	x	x	1	x	1	x	x
chloromethane (methyl chloride)	x	x	x	x	2	x	3	1	x	1	2	x
chloroprene (chlorinated butadiene)	x	x	x	2	1	x	3	1	x	1	3	x
chlorosulfonic acid	x	x	x	x	x	x	x	1	x	1	1-2	x
chlorothene (trichloroethane)	x	x	x	x	1	3	x	1	x	1	2	x
chromic acid 10%	x	3	3	2-3	2	1	3	1	3	1	1	3
chromic acid 25%	x	x	x	2-3	1	2	x	1	x	1	1	x
chromic acid 50%	x	x	x	2-3	1	x	x	1	x	1	2	x
chromium trioxid s. chromic acid												
citric acid, aqu. I)	3	1	1	1	1	2	2	1	1	1	1	1
citric acid I)	2	1	2	2-3	1	2	2	1	1	1	1	1
clophen (chlorobiphenyl)	x	x	2	x	1	x	1	1	x	1	3	2
coal tar (s. also hot tar; cresotote)	3	3	x	x	1	2-3	2-3	1	3	1	2	3
coconut grease and oil I)	2	2	1	3	1	1	1	1	2	1	2	1-2
cod-liver oil I)	1	1	2	2	1	1	1	1	2	1	2	1
common salt (sodium chloride)	3	2	1	1	1	1	1	1	1	3	1	2
compressed air, oil-saturated, to +°C	85	80	175	120	200	70	90	200		200	125	
copper acetate	x	x	x	2	x		1	1	2	1		
copper chloride, aqu.	3	1	1	2	1	1	1	1	2	1	1*	2
copper cyanide	3	1	1	1	1	1	1	1	1	1	1*	2
copper fluoride	x	x	3	1	1		1	1			1	
copper nitrate, aqu.	x	3	1	1	1	2	2	1	1	1	1*	2
copper sulphate, aqu. (blue vitriol)	2	1	1	2	1	1	1	1	1	1	1*	2
corn oil I)	1	1	1	2	2	2	1	1	2	1	2-3	1
cottonseed oil I)	1	1	1-2	1-2	1	1-2	1	1	2-3	1	2	1
cow suet	1	1	3	1-2	1	2	2-3	1	3	1	2	3
creosote	x	2	2	2-3	1	2-3	x	1	3	1	2	
cresol, cresylic acid	x	x	x	x	1	x	2-3	1	3	1	2	x
crotonaldehyde (2-butenal)	3-x	2-3		1	1	x	1	1	1		1	
crude oil, high aromatic	2	2	x	2	1	3	3	1	3	1		
cumene (isopropylbenzene)	3	3-x	x	x	1	x	x	1	x	1	x	x

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cupric hydroxide (mountain blue)	1	1	1				1	1		1	1*	
cyankali (potassium cyanide)	3	2	1	1	2	1	1	1	1-2	3	1	2
cyclohexane (hexahydrobenzene)	2	2	x	x	1	x	2	1	x	1	3-x	2
cyclohexanol (hexaline)	3	x	2-3	1-2	1	x	1	1	2	1	2	1-2
cyclohexanone	3	x	x	x	x	x	2-3	1	x	1	2-3	3
cyclohexylamine	x	x	x	3-x	x	1		1			x	
decalin (decahydronaphthalene)	1	1	x	x	1	1	2	1	x	1	x	x
detergents, synth. 20°C	3	2	1	1	1	1	1	1	2	1	1	
dextrose (glucose)	2	1	1	1	1	1	1	1	1	1	1	1
diacetone alcohol	3	2	2	2	x	x	1	1	3	1	1	1-2
dibenzyl ether	2-3	2-3	2	x	1	x		1	x	1	3	
dibutyl amine	x	x	3	x	x		x	1	x	1	2	x
dibutyl phthalate	x	3	2	3-x	2	3	2	1	x	1	2	2
dibutyl sebacate	x	x	2	x	2	3	1	1	x	1	2	1-2
dichlorobenzene	x	x	x	x	2-3	x	3	1	x	1	3	x
dichloroethylene	x	x	x	x	2	x	x	1	x	1	3	x
dichloro-isopropyl ether	2	2	x	x	3	3	1	1	x	1	2	x
dichloromethane (methylen chloride)	x	x	x	x	2	x	x	1	x	1	3	x
diesel oil	2	2	3	3	1	3	2	1	x	1	3	3
diethanolamine			2-3				1	1		1	2	2
diethyl ether (ether)	2	2	x	3-x	3-x	3	x	1	3	1	2	x
diethyl sebacate			2	x	2			1	x	1	2	
diethylamine	x	3	2	3	2	x	3-x	1	2	1	1	x
diethylbenzene	x	x	x	x	1	1	x	1	x	1	x	x
diethylene glycol monoethyl ether (carbitol)	x	x	2	2	2	3	1	1	3	1	1	1
diethylene glycol (diglycol)	3	3	2	2	1	3	1-2	1	1	1	1	2
diglycolic acid, aqu.	x	x	3	2	1	2	1	1			1	
dilutions for paints and lacqers determine composition												
dimethyl ether (methyl ether)	2	2		3	3	x	2	1	x	1	1	
dimethyl formamide (DMF)	x	3	2-3	3	3	x	1	1	x	1	1	1
dimethyl phthalate	3	3	3	x	2	3		1	x	1	2	
dimethylamine			2	x	x	x	3	1	x	1	1	
dimethylaniline (xylydine)	x	x	2-3	3	1	x		1	x	1	2	
dimethyl heptanone (diisobutyl keton)	x	x			x			1				
dioctyl phthalate (DOP)	2-3	2-3	3	x	1-2	3	2	1	x	1	2	2
dioctyl sebacate	2	2	3	x	2			1	x	1	2	
dioxane (diethylene dioxid)	x	x	x	x	x	x	1	1	x	1	2	2-3
diphenyl	x	x	x	3	1	x	2	1	x	1	3	
diphenyl oxid (diphenyl ether)	x	x	2	x	2-3	x	2-3	1	x	1	2	2-3
dipropylene glycol			2	1	1		1	1	1	1	1	1
dodecyl alcohol (lauryl alcohol)			2-3		1		2	1	1	1	3	2
DOWTHERM A (glycole)	x	3-x	x	2-3				1	2-3		x	
drilling oil: determine chem. composition												
Eau de Javelle (potassium hypochlorite)	3	2	2	2-3	1	1	3	1	2-3	3	1-2	
epichlorohydrin, liquid	x	x	x	x	x	x	1	1	x	1	1	
epsom salt (magnesium sulphate)	1	1	1	1	1	1	1	1	1	1	1	2
esters s. specific designations												
ethane (gas)	2	2	3	2-3	1	1	1	1	2	1	2	
ethanol (ethyl alcohol)	2	2	2	1	2-3	1-3	1	1	1	1	1	2
ethanolamine (2-aminoethanol)	x	x	2-3	2-3	3	3	1	1	2-3	1		
ethene (ethylene)	1	1	2	x	1	1	1	1	2-3	1	2	
ether (ethyl ether; diethyl ether)	2	2	x	3-x	3-x	3	x	1	3	1	2	x
etheric oils 1)	2	2	x	3	1	x	x	1	x	1	2	
ethyl acetate	x	x	2	x	x	x	2	1	3	1	1	2
ethyl acrylate (acryl acid ethyl ester)	x	x	2	1	x	x	x	1	x	1	1	
ethyl alcohol (denatured = spirits) 1)	2	2	2	1	2-3	1-3	1	1	1	1	1	2
ethyl benzene	x	x	x	x	2	x	x	1	x	1	x	x
ethyl bromide (bromomethane)	2	2	x	x	1	x	2	1	x	1	2-3	
ethyl chloride (chloroethane)	x	x	x	x	1-2	3-x	x	1	3	1	2-3	x
ethyl dichloride (dichloroethylene)	x	x	x	x	2	x	x	1	x	1	3	x
ethyl ether (ether)	2	2	x	3-x	3-x	3	x	1	3	1	2	x
ethyl glycol acetate	x	x			x		1	1		1	2	
ethyl mercaptan	x	x	3	2	x			1	x	1	2	
ethylene chloride (dichloroethylene)	x	x	x	x	2	x	x	1	x	1	3	x
ethylene chlorhydrine (chloroethanol)	x	x	x	2	x	x	3	1	x	x	2	x
ethylene diamine	x	x	2	2	2	x	1	1	2	1	1	1-2
ethylene (gas) (ethene)	1	1	2	x	1	1	1	1	2-3	1	2	
ethylene glycol (glycol, ethane-1,2-diol)	2-3	2-3	1	1	1	1	1	1	1	1	1	1
ethylene oxid (1,2-epoxy methane), liquid	x	x	3-x	x	x	x	2-3	1	x	1	1	x
fats in general s. oils and greases	x	x	x	x	x	x	1-2	1	x	1		
fatty acids, with >7 C-atoms, in general	2	1	3	2-3	1	1	3	1	3	1	2	
fatty acids, with 1-7 C-atoms, in general	3-x	2-3	3	2-3	1	1	3	1	3	1	2	
fatty alcohols (longchain, aliphatic alcohols)	3	2	2	2	2	2	1	1			3	
fermented fruit juice 1)	3	1	1	1	1	1	1	1	1	1	1	

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	Ester- PUR	Ether- PUR	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene	Kapton®	TPV	PO spez
Medium												
ferric chloride (ferri), aqu.	2-3	2	2	2	1	1	1	1	1	1	1	2
ferric sulphate, ferric vitriol, aqu.	2-3	2	2	1	1	1	1	1	1	1	2	1
fertilizing salt, aqu.	x	3		1	1	1	1	1			1	
fish-liver oil I)	2	2	2	3	1	3	1	1	2-3	1	2	
fluohydric acid s. hydroflouric acid												
fluorine, liquid	x	x	x		2	2-3	x	1	x	1	x	x
fluorobenzene	x	x	x	x	1			1	x	1	x	
fluoroboric acid 65%		x	x	1-2	2	1	1	1	2	1	x	2
fluorosilicic acid, aqu.	x	x	2-3	1-2	1	2-3	2	1	2	1	1	2
formaldehyd (methanal)	2-3	2-3	1-2	1-2	2-3	2	1	1	2	1	1	2-3
formaline (30-40% aqu. formaldehyd solution with 8 -12 % methyl alcohol additive)	3	2	2	2	1	1	1	1	2	1	1	3
formamide	x	x		1	2-3	x	1	1			1	
formic acid:												
3%	2	1	1	1	2	1	1	1	1		1	2
10%	3	2	2	1-2	3	1-2	1	1	1		2	2
100%	x	x	x	x	x	2-3	1	1	1	2-x		2
Freons and Frigenes ask for detailed advisory												
frost protection agents s. exact chem. designation												
fruit juices I)	3	1	1	1	1	1	1	1	1	1	1	
fruit pulp I)	3	1	1	1	1	1	1	1	1	1	1	
fuel s. gasoline												
fuming sulphuric acid: (oleum)	x	x	x	x	1	x	x	1	x	1	x	x
fungi (microbes)	x	1	3	1	1	1	2-3	1			2-3	
furan	x	x	x	x	x	1	x	1	x	x		
furfural alcohol (furfurol)	x	x	2	3	3	1	x	1	3	x	2	x
gallic acid	3	3	2-3	2	1	1-2	1	1-2	2-3	1	2	2
gasoline in general (s. specific designations)	1	1	3-x	x	1	x		1	1-2		x	
gasoline, ASTM fuel A	1	1	x	1	1	3-x		1	1		x	
gasoline, ASTM fuel B	x	x	x	x	1	3-x		1	x		x	
gasoline, ASTM fuel C	x	x	x	x	1	3-x		1	x		x	
gasoline, diesel, heating oil	1	1	3	2	1	3-x	2	1	x	1	x	
gasoline, aviation (kerosene)	1	1-2	x	2	1	3	2	1	2	1	x	x
gasoline, high aromatic	3	2-3	x	2-3	1	2-3	2-3	2	1	1	x	x
gasoline, low aromatic	2	2	x	x	1	3	x	1	1	1	x	x
gasoline, test- (heavy g., white spirit, mineral turpentine)	1-2	1-2	x	x	1	3	1-2	1			x	x
gasoline/benzene (50/50)	3	3	x	x	2	3		1			x	
gasoline/benzene (60/40)	2	2	x	x	2	3		1			x	
gasoline/benzene (70/30)	2	2	3	x	1	3		1			x	
gasoline/benzene (80/20)	2	3	3	x	1	3	3	1			x	
gasoline/benzene/ethanol (50/30/20)	3	3	x	x		3		1			x	
gelatins, aqu. I)	3	1	1	1	1	1	1	1	1	1	1	1
glacial acetic acid (acetic acid conc.)	x	x	2-3	3	x	x	x	1	x	1	1	x
Glauber's salt (sodium sulphate)	3	1	1	1	1	1	1	1	1	1	1	1
glucose I)	2	1	1	1	1	1	1	1	1	1	1	1
glue, animal	2	2	1	1	1	1	1	1	1	1	1	1
glycerine (glycerine, propane-1,2,3-triol)	1	1	1	1	1	1	1	1	1	1	1	1
glycine (amino acetic acid), aqu. 10%	x	x	2-3	2-3	1	1		1			1	1
glycole determine exact designation, applicable in general	2	2	1	1	1	1	1	1	1	1	1	
glycolic acid (hydroxy acetic acid), 30%	x	3-x	1	1	1	1	1	1			1	
grape juice unfermented I)	3	1	1	1	1	1	1	1	1	1	1	1
greases s. oils and greases												
gypsum (calcium sulphate)	3	1	1	1	1	1-2	1-2	1	2	1	1	2
heavy gasoline (white spirit or mineral turpentine)	1-2	1-2	x	x	1	3	1-2	1			x	x
helium	1	1	1	1	1	1	1	1			1	1
heptane	2	2	x	2	1	2-3	2-3	1	2-3	1	x	3
hexahydrobenzene: (cyclohexane)	2	2	x	x	1	x	2	1	x	1	3-x	2
hexaldehyde	2	3	3	2	x		1	1	2	1	2	
hexaline (cyclohexanol)	3	x	2-3	1-2	1	x	1	1	2	1	2	1-2
hexane (n-hexane)	2	2	x	1-2	1	1-2	3	1	1-2	1	x	3-x
hexanol (hexyl alcohol)	3	x	2-3	2	2	2	1	1	1	1	2	2
hexane-triol	x	x	1	1	1	1	1	1			1	
hexene	1	1	x	3	1		1	1	2			
hot air s. air												
hot bitumen to °C	x	x	x	x	180	x	x	200	x	200	x	
hot tar to °C	x	x	x	x	180	x	x	200	x	200	x	
hydraulic oils and -liquids:												
~glycol based	1	1-2	2					1		1	1	
~mineral oil based	1	1	3	2	1	3	3	1	2	1	3	
~phosphate ester based (pydraul)	x	x	2-3	x	1	x	x	1	x	1	1	
hydrazines (diamides)	x	x	3	2	2-3	1	1	1	2-3	1	1	
hydrazine hydrate, aqu.	x	x	3	1	1	1	1	1	2	1	1	
hydrobromic acid	x	3	3	1	1	2-3	1-2	1	1	1	1	2

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Medium	Ester-PUR	Ether-PUR	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene®	Kapton®	TPV	PO spez
hydrochloric acid 15%	3	2	3	1-2	1	1	1	1	3	1	1	1
hydrochloric acid 38% (conc.)	x	x	3	1-2	1	2	1-2	1	3	1	1	1
hydrochloric acid, (hydrochlorous) gaseous	3	2	1	1-2	1	1	1	1	2	1	1	1
hydrocyanic acid s. prussic acid												
hydrofluoric acid 10%	x	2	2-3	1	1-2	1-2	1-2	1	2	1	1	2
hydrofluoric acid 30%	x	2	3	1-2	1-2	2	1-2	1	3	1	2	2
hydrofluoric acid 75%	x	3	x	2	2	3	3	1	x	1	3	2
hydrofluorocilic acid, aqu.	x	x	2-3	1-2	2-3	2-3	2	1	2	1	1	
hydrogen (gas)	1	1	3	1	1	1	1	1	1	1	1	1
hydrogen cyanide s. prussic acid												
hydrogen peroxide 10%	x	2	1	2	1-2	1	2	1	x	1	1-2	2
hydrogen peroxide 30%	x	2	1-2	2	1	2	2-3	1	x	1	2-3	2
hydrogen sulphide, dry	x	3	2-3	1-2	1	x	1	1	2-3	1	1	
hydrogen sulfide, wet	x	3-x	1	1-2	1	x	1	1	2-3	1	1	
hydroquinone, aqu.	x	x	3	2-3	2	2	1	1	3		3	2
hydroxylamine sulphate, aqu.	x	x	1	1	1	1	1	1			1	
ink	1	1	1	1	1	3	1	1			1	
iodine tincture (5-10% alcohol iodine solution)	x	x	x	2	1	2-3	2-3	1	3	1	1	x
isobutanol (isobutyl alcohol)	3	x	1	1	1	1	1	1	1	1	2	1
isooctane	2	2	3	2	1	1	3	1	3	1	x	x
isooctanol (isooctyl alcohol)	3	3	2	2	1	1	1	1	3	1	2	
isophoron	3-x	3-x	3-x	x	x			1	x	1	3	
isopropanol (isopropyl alcohol)	2	3	1	1	1	2	1	1	2	1	1	1
isopropyl acetate	3	3	3	x	x	3	2-3	1	x	1	1	3
isopropyl benzene (cumen)	3	3-x	x	x	1	x	x	1	x	1	x	x
isopropyl chloride	3	3	x	x	1			1	x	1	2	
isopropyl ether	2	2	x	3	3	2-3	2-3	1	x	1	2	x
Javelle lye: s. potassium hypochlorit)	3	2	2	2-3	1	1	3	1	2-3	3	1-2	
jet fuel DPI-IPS			x	x	1	2-3	x	1	2-3	1		
kerosene	2	1	3	2-3	1	1	3	1	2	1	x	x
ketones s. specific designations, applicable in general	x	x	2	x	x	x	x	1	x	1	x	
lacquers, composition must always be determined												
lactic acid I)	x	2	2	2	1	3	2	1	3	1		2-3
lanolin (wool grease)	1	1	3	3	1	2	1-2	1	3	1	2	1-2
lard (oils, animal)	1	1	3	1-2	1	2	2-3	1	3	1	2	3
laughing-gas (nitrous oxide)	1	1	1	1	1	1	1	1	1	1	1	
lauryl alcohol (dodecyl alcohol)			2-3		1		2	1	1	1	3	2
lavender oil I)	x	x	x	2-3	1			1	2-3			
lead acetate, aqu.	3	1	1	1	1	1	1	1	2	1	1	1
lead arsenate, aqu.	3	1	1			1	1	1	1	1	1	2
lead nitrate	2	1	2	1	1	1	1	1	1	1	1	1
lead sulfate	1	1	1	1	1	1	1	1	1	1	1	
lighting gas (lamp gas, town gas)		3	3	3	1	1	1	1	x	1	2	
lignite tar oil (s.a. coal tar)	3	3	x	x	1	2-3	2-3	1	3	1	2	3
lime, burned (calcium oxide)	1	1	1	1	1	1	1	1	1	1	1	1
lime, slaked (calcium hydroxide)												
limestone (calcium carbonate)	1	1	1	1	1	1	1	1	1	1	1	1
linseed oil I)	1	2	1	2	1	2	2	1	3	1	2-3	2
liquefied petroleum gases (LPG) s. chem.												
identification of the gases												
lubricants and greases s. oils												
lyes s. exact designation, applicable in general	x	2	2	1	2	1	1-2	1	1-2	1	1-2	1-2
machine oil, s. oils, mineral												
magnesium chloride, aqu.	3	1	1	1-2	1	1-2	1	1	1-2	1	1	2
magnesium hydroxide	3	1	1	1	1	1	1	1	1	1	1	2
magnesium silicate (talca)	1	1	1	1	1	1	1	1	1	1	1	
magnesium sulfates	1	1	1	1	1	1	1	1	1	1	1	2
magnesium sulfite, aqu.	3	1	1	1	1	1	1	1	1	1	1	
maize oil I)	2	2	2	1	1	2	2	1	1			
maleic acid, aqu.	x	x		x	1	1	2	1	3-x	1	1	2
manure	x	1	1	1	1	1	1	1	1	1	1	
margarine-greases and oils I)	1	1	3	1-2	1	2	3-4	1	2	1	2	
mash I)	3	1	1	1	1	1	1	1	1	1	1	
MEK (methyl ethyl ketone)	x	x	x	x	x	x	2	1	3	1	1	2-3
melamine			3		1	x		1	x			
menthol	3	3	x	1	1		1	1			1-2	
mercury	1	1	1	1	1	2	1	1	1-2	1	1	
mercuric chloride (sublimite)	1	1	1	1-2	1	2	1	1	1-2	1	1	2
mercurious nitrate	2	1	1		1	1	1	1		1	1	
mesityl oxide	x	x	x	x	x	x	3	1	x	1	3	x
methane (gas)	2	3	3-x	2-3	1	1-2	1	1	2-3	1	2	
methanol (methyl alcohol)	2	3	1	1	2	1	1	1	1	1	1	1
methyl acetate (acetic acid methyl ester)	x	x	x	x	x	x	2	1	2	1	1	2
methyl acrylate	x	x	x	x	x	x		1	2			
methyl alcohol	2	3	1	1	2	1	1	1	1	1	1	1

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	Ester-PUR	Ether-PUR	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene	Kapton®	TPV	PO spez
Medium												
methyl bromid (bromomethane)	x	x	x	3	2	x	3	1	x		x	x
methyl chloride (chloromethane)	x	x	x	x	2	x	3	1	x	1	2	x
methyl chloroform (trichloroethane)	x	x	x	x	1	3	x	1	x	1	2	x
methyl ethyl ketone (MEK)	x	x	x	x	x	x	2	1	3	1	1	2-3
methyl glycol (methylcellosolve)	x	x	x	3	x	x	2	1	2-3	1	1	2-3
methyl glycol acetate	x	x	x		x			1	x	1	1	
methyl isobutyl keton	x	x	3	x	x	x	2-3	1	x	1	2	3
methyl oxiran (propylene oxide)	x	x	x	x	x		2-3	1	x	1	1	2-3
methyl phthalate (dimethyl phthalate)	3	3	3	x	2	3		1	x	1	2	
methylamine, aqu.	x	x	x	1	2-3	3	1	1	2	1	1	
methylated spirits (ethanol denaturated)	2	2	2	1	2-3	1-3	1	1	1	1	1	2
methylen chloride (dichloromethane)	x	x	x	x	2	x	x	1	x	1	3	x
microbes	x	1	3	1	1	1	2-3	1			2-3	
milk of lime (lime water) s. calcium hydroxide, aqu.milk I)	3	2	1	1	1	1	1	1	1	1	1	1
mineral oil s. oils, mineral												
mixed acid II (sulphuric acid/phosphoric acid/water)	x	x		1	1	1	3	1	2	1	2	
mixed acid I (sulphuric acid/nitric acid/water)	x	x	x	x	x	x	x	1	1-2	1	3	
molasses I)	1	1	1	1	1	1	1	1	1	1	1	
monochloroacetic acid	x	x	x	2	x	2	x	1	3	1	2	x
monochlorobenzene	x	x	x	x	1	x	3	1	x	1	x	
monochloromethane (methyl chloride)	x	x	x	x	2	x	3	1	x	1	2	x
monostyrol (styrol, styren, monomeric)	x	3	x	x	2	x	x	1	x	1	x	
morpholine	x	x	x	2	2	x	1	1	3		1	
motor oil s. oil and greases, clarify mineral additives												
mountain blue (cupric hydroxide)	1	1	1				1	1		1	1*	
must fermented (fermented fruit juice)	3	1	1	1	1	1	1	1	1	1	1	
must, unfermented I)	3	1	1	1	1	1	1	1	1	1	1	
mustard	1	1		1	x	1-2	1	1	1			
myristyl alcohol, myristic alcohol (tetradecanol)	1	1	2	1	1			1	1	1	2	
naphtha	2	2	3	x	1	2-3	2-3	1	3	1	3-x	x
naphthalene (stone oil)	2	2	3	3	1	x	2-3	1	x	1		2-3
natural gas, wet	2	1-2	2-3	1	1	1	2	1	1	1	2	2
natural gas, dry	1	1	2-3	1	1	1	1	1	1	1	2	1
n-hexane	2	2	x	1-2	1	1-2	3	1	1-2	1	x	3-x
nickel acetate	3	2	2	x	x		1	1	2		2	
nickel chloride, aqu.	3	2	1-2	1-2	1	1	1	1	2	1	2	2
nickel sulphate, aqu.	2-3	2	1	1	1	1	1	1	1	1	1	2
nitrating acid (mixed acid I)	x	x	x	x	x	x	x	1	1-2	1	3	
nitric acid 10%	3	3	3	1-2	1	1	2	1	2	1	1	2
nitric acid 25%	x	x	x	2	1-2	1	2-3	1	3	1	1	3
nitric acid 50% (aqua fortis)	x	x	x	3	1-2	2-3	2-3	1	x	1	1-2	3
nitric acid 60%	x	x	x	3-x	2	2-3	x	1	x	1	3-x	x
nitric dilution	2	2	x	1		x	2-3	1	1		2-3	
nitro-benzene	x	x	x	x	2	x	3	1	x	1	1	x
nitrogen	1	1	1	1	1	1	1	1	1	1	1	1
nitrogen oxides (nitrouse gases)	x	x	x	3	3	x	1	1	x		x	
nitro-glycerin	x	x	x	1	1	2	2	1			x	3
nitro-methane	x	x	x	2-3	x	2-3	1	1	3			
nitro-propane	x	x	x	x	x			1	x	1	1	
nitro-toluole	x	x		x	3	x	1	1	x	1	x	
nitrous fumes (nitrogen oxides)	x	x	x	3	3	x	1	1	x		x	
nitrous oxide (laughing gas)	1	1	1	1	1	1	1	1	1	1	1	
nonyl alcohol (nonanol)	x	x	2	2	1		2	1	3	1	2	2-3
octane	1	1	x	x	1		1	1	x	1	x	1
octanol = octyl alcohol	x	x	2	1	1	x	1	1	1	1	2	1-2
oils and greases												
-animal I)	1	1	3	1-2	1	2	2-3	1	3	1	2	3
-ASTM-oil Nr. 1 20°C	1	1	2	1	1	2	2	1	1	1	3	3
-ASTM-oil Nr. 2 20°C	1	2	3	2	2	2	3	1	1	1	x	x
-ASTM-oil Nr. 3	3	3	x	2-3	1			1	1		x	
-ASTM-oil Nr. 3 20°C	1	2	3	2	2	2	3	1	x	1	x	x
-crude oil, high aromatic	2	2	x	2	1	3	3	1	3	1		
-diesel oil	2	2	3	3	1	3	2	1	x	1	3	3
-heating oil	2	2	3	3	1	3	2	1	x	1	3	
-hydraulic oils and -liquids:												
~glycol based	1	1-2	2					1		1	1	
~mineral oil based	1	1	3	2	1	3	3	1	2	1	3	
~phosphate ester based (pydraul)	x	x	2-3	x	1	x	x	1	x	1	1	
-mineral, without additives, at 20°C	1	1	2-3	2-3	1	2	2	1	x	1	2-3	
-mineral, without additives, to °C	65	60	x	150	200	x	30	200		200	100	
-silicon based	1	1	2-3	1	1	1	1		2-3	1	1	1
-transformer oils (pyranols)	2	2	x	x	1	3	3	1	2-3	1	x	x
-vegetable I)	1	1	3	1-2	1	2	2	1	2	1	2	2
oleic acid, olein	1	1	x	3-x	2	2	2-3	1	x	1	2	3

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Medium	Ester- PUR	Ether- PUR	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene®	Kapton®	TPV	PO spez
oleum (fuming sulfuric acid)	x	x	x	x	1	x	x	1	x	1	x	x
oleum vapours	x	x	x	3	3	3	x	1	x	1	x	x
olive oil (1)	1	1	2	1-2	1	1	1	1	2	1	2	1
oxalic acid, aqu.	x	x	2	2	1	2	1	1	3	1	1	1
oxirane (ethylene oxide)	x	x	3-x	x	x	x	2-3	1	x	1	1	x
oxygen pure to +°C	80	80	175	120	200	70	70	200		200	100	
ozone	1	1	1	1	1	2	3	1	2-3	1	1	x
palm oil, palm pip oil (1)	1	2	1	3	1	1-2	1-2	1	x	1	2	1-2
palmitic acid	1	1	3	3	2	2	1	1	3	1	1	1
paraffin, paraffin oils	1	2	2	3	1-2	1-2	2-3	1	2-3	1	2	3
paraformaldehyde	2	1	1		2	1	1	1	2	1	1	2
pectine	1	1		1	1	1		1			1	
pentachlorophenol	x	x	3				1-2	1		1	2	2
pentane	3	x	x	2	1	1	x	1	2	1	3	x
pentanols s.amyl alcohols)	3	3	3	1	2	1	1-2	1	1	1	1	2
perborate (sodium borate)	1	1	1-2	1-2	1	1	1	1	1	2	1	1
perchloric acid, aqu.	x	x	x	1-2	1	2-3	2	1	2	1	1	2
perchloroethylen (tetrachloroethylen)	x	x	x	x	1	3	x	1	x	1	x	x
perhydrol s. hydrogen peroxide												
permanganate (potassium permanganate) 10 %ig	3	1	1	1	1	1	1	1	2	2	1	2
peroxy monosulfuric acid				2-3		1	x		x	1		x
petroleum (s. also oils, mineral)	1	1	2-3	2-3	1	x	2-3	1	2	1	x	3
phenol (carbolic acid), aqu.	3-x	3-x	3	2-3	1	x	x	1	3	1	2-3	x
phenyl ether (diphenyl oxide)	x	x	2	x	2-3	x	2-3	1	x	1	2	2-3
phenylbenzene (biphenyl)	x	x	x	x	1	x		1	x		1	
phorone (diisopropylidene acetone)	x	x	x	x	x			1	x		1	
phosphoric acid 3%	2-3	2	2	2	1	1	1	1	1	1	1	1
phosphoric acid 50%	3	2	3	2	1	1	2	1	2	1	1	2
phosphoric acid 85%	x	x	3	2	1	1	2	1	3	1	1	3
phosphoric alumina (aluminium phosphates, aqu.)	2	1	1	1	1	1	1	1	1	1	1	
phosphorus oxychloride	x	x	x	3	1	x	2-3	1	3	1	1	x
photo-emulsions, in general (s. exact chem. designation)	x	x	2	1	2	1-2	1	1	1-2	1	1	1
phthalic acid			2	1	x	2	1	1	1		1	2
phthalic acid anhydride, aqu.				1	x	3	1	1	1	1	1	2
phthalic acid ester (phthalates)	x	3	x	1	1	1	1	1			2-3	
picric acid	2-3	2-3	3	2	1-2	2-3	1	1	2	1	1	2
pigs fat (oils, animal)	1	1	3	1-2	1	2	2-3	1	3	1	2	3
pine oil (1)	1	1	x	x	1	3	3	1	x	1		x
polychlorinated biphenyls (pyranols, transformer oils)	2	2	x	x	1	3	3	1	2-3	1	x	x
potash (potassium carbonate)	3	2	1	1	1	1	1	1	1	3	1	2
potassium acetate, aqu.	x	x	x	x	2-3	1	1	1	2-3	1	1	
potassium aluminium sulfate (alum)	2	1	1-2	1	1	1	1	1	2	3	1	2
potassium bicarbonate (potassium hydrogen carbonate)	2	2	1	1	1	1	1	1	1	3	1	2
potassium bichromate (potassium dichromate)	3	2	2	1-2	1	1	1	1	1	3	1	2
potassium bisulfate, aqu.	x	3-x	2	1	1	1	1	1			1	1
potassium borate, aqu.	3	1	1	1	1	1	1	1	1	3	1	2
potassium bromate, aqu. 10%	x	x	2-3	1	1	1	1	1			1	2
potassium bromide, aqu.	2-3	1	1	1	1	1	1	1	1	3	1	1
potassium carbonate (potash)	3	2	1	1	1	1	1	1	1	3	1	2
potassium chlorate, aqu.	3	2	2	1	1	1	1	1	1	3	1	2
potassium chloride, aqu.	2	1	1	1	1	1	1	1	1	3	1	2
potassium chromate, aqu., 40%	x	x	2-3	1	1	1-2	1	1	1		1	
potassium cyanide (cyanide), aqu.	3	2	1	1	2	1	1	1	1-2	3	1	2
potassium dichromate, aqu.	3	2	2	1-2	1	1	1	1	1	3	1	2
potassium hydroxide (caustic potash, -lye) 10%	2-3	2	3	1-2	1	2	1	1	1	3	1	1
potassium hydroxide (caustic potash, -lye) 50%	x	3	x	1-2	2-3	2-3	1	1	1	x	1	1
potassium hypochlorite (Javelle)	3	2	2	2-3	1	1	3	1	2-3	3	1-2	
potassium iodide, aqu.	3	2	2	1	1	1-2	1-2	1	1	2	1	1
potassium nitrate, aqu.	2-3	1	1	1	1	1	1	1	1	3	1	2
potassium perchlorate, aqu.	x	x	2	1	1	1		1			1	
potassium permanganate 10%, aqu.	3	1	1	1	1	1	1	1	2	2	1	2
potassium peroxy disulfate (potassium persulfate)	x	3-x	3-x	1	1	2	1	1			1	1
potassium phosphate (mono and dibasic)	1	1	x	1	1	1	1	1	1	3	1	1
potassium sulfate	1	1	1	1	1	1	1	1	1	3	1	1
potassium sulfite	1	1	1	1	1	1	1	1	1	3	1	1
propane gas	1	1	x	2-3	1	1	2	1	1	1	1	x
propane, liquid	1	1	3	3	1	1	x	1	2-3	1	1	
propanol (propyl alcohol)	2	3	1-2	1-2	1	1-2	1	1	1-2	1	1	1
propargyl alcohol, aqu. 7%	x	x	2	2	1	1	1	1	1		2	2
propionic acid (propanoic acid)	x	x	2	3	1	1	1	1	x	1	1	
propyl acetates (acetic acid propyl esters)	x	x	x	x	x		2	1	x	1	1	
propyl alcohol (propanol)	2	3	1-2	1-2	1	1-2	1	1	1-2	1	1	1
propylamine	x	x	x	x	x			1	x	1	1	

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	Ester-PUR	Ether-PUR	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene	Kapton®	TPV	PO spez
Medium												
propylene (propene)	x	x	x	x	1	2		1	x	1	1	
propylene dichloride			x				x	1		1	2	x
propylene glycols (propanediols)	x	x	1	1	1	3	1-2	1	2-3	1	1	1
propylene oxide (methyloxiran)	x	x	x	x	x		2-3	1	x	1	1	2-3
prussic acid 20%	3	2	2-3	1-2	1-2	1-2	1	1	2-3	1	1	1
prussic acid 98% (conc.)	3	2	2-3	1-2	1-2	1-2	1	1	2-3	1	1-2	2
pydraul (hydraulic liquids phosphate ester based)	x	x	2-3	x	1	x	x	1	x	1	1	
pyranols (oils, transformer oils)	2	2	x	x	1	3	3	1	2-3	1	x	x
pyridine	x	x	x	3	3	x	1	1	x	1	2-3	
pyrrol	x	x	2	3	3			1	3		1	
quick lime (calcium hydroxide)	3	2	1	1	1	2	1	1	1	1	1	1-2
radiation, radioactive	2	2	x	1		3	x	x	1		2	
radiation, UV-	2	2	2	1	1	2	3	1			x	
radioactive radiation: applicable in general	2	3	x	x	x	x	3	x	x	x	1-2	
rapeseed oil I)	2	2	x	2-3	1		x	1	2-3	1	2	
raw sugar sap	x	3	1	1	1	1	1	1	2	1	1	
redoil (aniline)	x	x	2	3	1-2	2-3	2-3	1	x	1	1	3
saccharose (sugar) aqu.	3	1	1	1	1	1	1	1	1	1	1	1
salicylic acid (spiric acid), aqu.	2	1	1	1	1	2	1	1	2	1	1	2
salmiac (ammonium nitrate)	3	1	1	2	1	1	1	1	1	1	1	2
salpêtre (potassium nitrate)	2-3	1	1	1	1	1	1	1	1	3	1	2
salt (table or common salt, sodium chloride)	3	2	1	1	1	1	1	1	1	3	1	2
salted water (brine, sea water)	3	1	1	1	1	1	1	1	1	1	1	1
sangajol = turpentine oil substitue, mineral	1-2	1-2	x	x	1	3	1-2	1			x	x
seawater	x	2	1	1	1	1	1	1	1	1	1	1
sebacic acid ester	x	x		x	3-x	x		1			2	
sewage	x	*)	2	1	1	1	1	1	1	1	2	1
silicon dioxide (silicic acid)	1	1	1	1	1	1	1	1	1	1	1	1
silicon oils and -greases	1	1	2-3	1	1	1	1	1	2-3	1	1	1
silver nitrate, aqu.	1	1	1	1	1	2	1	1	1-2		1	1
skydrol (hydraulic liquids, phosphate ester based)	x	x	2-3	x	1	x	x	1	x	1	1	
soapsuds, -solution, detergents)	x	2	1	1	1	1	1	1	1	1	1	
soda lye s. sodium hydroxide												
soda salpêtre (sodium nitrate)	2	1	3	1	1	1	1	1	2	1	1	1
soda, calcinated (sodium carbonate anhydrous)	2	2	1	1	1	1	1	1	1	2	1	1
soda, crystallised (sodium carbonate aqu.)			1	1	1	1	1	1	1	2	1	1
sodium acetate, aqu.	x	3	x	2	x	1	1	1	2	1	1	1
sodium benzoate, aqu.	1	1	2-3	1	1	1-2	1	1	1		1	1
sodium bicarbonate (sodium-hydrogencarbonate), aqu.	x	2	1	1	1	1	1	1	1	2	1	1
sodium bisulfate (sodium-hydrogensulfate)	x	x	1	1	1	1	1	1	1	2	1	1
sodium bisulfite (sodium-hydrogensulfite), aqu.	x	x	1	1	1	1	1	1	1	2	1	1
sodium borate (borax)	1	1	1-2	1-2	1	1-2	1	1	1	2	1	1
sodium bromide				1-2	1	1-2	1	1	1		1	1
sodium carbonate (soda) aqu.			1	1	1	1	1	1	1	2	1	1
sodium chlorate, aqu.	3	2	1	1	1	1	1	1	1	3	1	2
sodium chloride (common or table salt) I)	3	2	1	1	1	1	1	1	1	3	1	2
sodium chlorite				1	1	3	2-3	1			2	
sodium cyanide	3	3	1	1	1	1	1	1	1	3	1	
sodium dichromate	3	3	2	1	1	1	1	1	1	3	1	1-2
sodium fluoride	3	2	2	1	1	1	1	1	1	3	1	1
sodium fluoroaluminate 10%	3	2-3	2		1	1	1	1	1	3	1	
sodium hydroxide (sod lye) 25%, 100°C	x	x	x	3	x	x	x	1	x	3	1	x
sodium hydroxide (sod lye) 25%, 20°C	x	2	2	1	3	1	x	1	2	2	1	x
sodium hypochlorite 10%	3	2	2	1	1	1	2	1	2-3	1	2-3	2-3
sodium hypochlorite 30%	x	3	3	1	2-3	1	2	1	1		x	3
sodium metaphosphate	1	1	1	2	1	1	1	1	2	1	1	
sodium nitrate, aqu.	2	1	3	1	1	1	1	1	2	1	1	1
sodium nitrite	2	1	1	1	1	1	1	1	1	1	1	2
sodium perborate	x	x	2	2	1	2	1	1	2	1	1	1
sodium peroxide	3	2	3	2	1-2	2	1	1	2-3	1	1	
sodium phosphate (s. also trisodium phosphate)	2	2	x	2	1	1	1	1	2	1	1	1
sodium silicate, aqu.	x	3	1	1	1	1	1	1	1	1	1	2
sodium sulfide, aqu.	2	2		1	x	1	1	1	1	1	1	1
sodium sulfate (Glauber's salt), aqu.	3	1	1	1	1	1	1	1	1	1	1	1
sodium sulfite, aqu.	2	1	1	1	1	1	1	1	1	1	1	1
sodium thiosulfate (antichlorine)	3	2	1	1	1	1	1	1	1	1	1	1
solvents s. specific designations												
soybean oil I)	2	2	1	2-3	1	1	1-2	1	2-3	1	2	2
spindle oil (oils, mineral)												
spirits (ethanol, denaturated)	2	2	2	1	2-3	1-3	1	1	1	1	1	2
spruce needle oil	2	2	2	x	1-2	x	2	1				3-x
staining solution (20% nitric acid 4% hydrofluoric acid)		x	x		1				1	x		x
starch syrup I)	2	2	1	1	1	1	1	1	1	1	1	
starch, aqu. I)	1	1	1	1	1	1	1	1	2	1	1	

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	Ester- PUR	Ether- PUR	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene®	Kapton®	TPV	PO spez
Medium												
steam of water to °C	x	x	120	100	150	x	x	200		200	135	
stearin (stearic acid)	3	2	1-2	2-3	2	1-2	1-2	1	2	1	1	1
stone oil (naphthalene, liquid paraffine)	2	2	3	3	1	x	2-3	1	x	1		2-3
styrene, monomer	x	3	x	x	2	x	x	1	x	1	x	
sublimate (mercury chloride)	1	1	1	1-2	1	2	1	1	1-2	1	1	2
sugar aqu. 1) (s. also raw sugar juice)	3	1	1	1	1	1	1	1	1	1	1	1
sulfonic acids, in general	x	x	1	1	2	1		1			2-3	
sulfur dioxide s. sulfurous acid												
sulfur trioxide (sulfuric acid anhydride)	3	2	2-3	3	1	1	1	1	x	1	1	2
sulfur, molten, 90°C	3	2	1	1	1	x	x	1	2	1	2-3	
sulfuric acid 10%	3	2	3	1	1	1	1	1	2	1	1	1
sulfuric acid 30%	x	2	x	1	1	1	1	1	2	1	1	1
sulfuric acid 50%	x	2	x	1	1	1	1	1	2	1	1	2
sulfuric acid 75%	x	x	x	1-2	1	2	2	1	2-3	1	1	3
sulfuric acid 90%	x	x	x	2	1	x	3	1	3	1	1	x
sulfuric acid conc. (oleum, fuming sulfuric acid)	x	x	x	3-x	1	x	3	1	x	1	x	x
sulfuric ether s. ether												
sulfurous acid 10%, moist	3	2	2	1-2	2	2	1	1	3	1	1	1
sulfurous acid 75%, moist	x	x	3	2-3	2	2-3	2	1	3	1	1	1
table salt (sodium chloride)	3	2	1	1	1	1	1	1	1	3	1	2
talc (magnesium silicate)	1	1	1	1	1	1	1	1	1	1	1	
tallow	1	1	1	1	1	1	1	1	1	1	2	
tannic acid (tannin)	2-3	2	2	1-2	1-2	1	1	1	1-2	1	1	1
tar (s. also hot tar)	x	x	2	x	1	2	2	1	3	1	x	
tartaric acid, aqu. 1)	3	1	1	1	1	1	1	1	1-2	1		1
test gasoline = white spirit	1-2	1-2	x	x	1	3	1-2	1			x	x
tetrachlorocarbon (tetrachloromethane, tetra, carbon tetra chloride)	3	3	x	x	1	x	x	1	x	1	x	
tetrachloroethans	x	x	x	x	2	3	x	1	x		x	x
tetrachloroethylene (perchloroethylene)	3	3	x	x	1	x	2-3	1	x	1	x	x
tetrahydrofuran (THF)	3	3	x	x	x	x	3	1	x	1	2	x
tetraline = tetrahydronaphthalene	x	x	x	x	1	1	3	1	x	1	x	x
thionyl chloride	x	x	x	x	3	x	x	1	x		x	x
thiophene	x	x	x	x	x	x	1	1			x	
tin-II-chloride, aqu.	3	1	2	1	1	1	1	1	1	1	1	
toluol	x	x	x	x	1	x	3-x	1	x	1	x	x
tooth pasts						1	1	1				
town gas, lamp gas (natural gas see later)		3	3	3	1	1	1	1	x	1	2	
train-oil	2	2	2	3	1	3	1	1	2-3	1	2	
transformer oils	2	2	x	x	1	3	3	1	2-3	1	x	x
tributyl phosphate (TBP)	x	x	x	x	x	x	1	1	x	1	1	
trichloro acetic acid (TCA)	x	x	x	x	3	2	1-2	1	x		3	2-3
trichloroethane (methylchloroform)	x	x	x	x	1	3	x	1	x	1	2	x
trichloroethylene (ethylene trichloride)	x	x	x	x	1-2	x	x	1	x	1	2	x
trichloromethane (chloroform)	x	x	x	x	1	x	x	1	x	1	x	x
tricresyl phosphate	x	x	3	x	1-2	x	3	1	3	1	1	1
triethanolamine	x	x	1	2-3	1	x	1	1	2	1	1	1
triethylamine	2	2	x		x	2	1	1	2	1	1	
triethylene glycol (triglycol)	2	2	2	1	1			1			1	1
trioctyl phosphate	x	x	3	x	x	x	1	1	x	1	1	
trisodium phosphate	3	3	1	1	1	1	1	1	1	1	1	1
tung oil	3	2	3	3	1	3	2	1	x	1	2	
turpentine (-oil)	3	x	x	x	1	x	x	1	x	1	3-x	x
turpentine, mineral	1-2	1-2	x	x	1	3	1-2	1			x	x
urine	3	1	1	1	1	1	1	1	2-3	1	1	2
varnish	3	2	x	x	1	x	1	1	x		x	
vaseline s. oils u. greases, mineral												
vegetable oils	1	1	3	1-2	1	2	2	1	2	1	2	2
vinegar 1)	x	3	1	1	1	2	1	1	2	1	1	1
vinyl acetate (acetic acid vinyl ester)	x	x	x	1	2	x	1	1	x	1	1	
vinyl chloride (chloroethene), monomer	x	x	x	x	1	x	x	1	x	1	2	x
vitamin C	2-3	1			1	1	1					1
vitriol oil (oleum)	x	x	x	x	1	x	x	1	x	1	x	x
vitriol blue (copper sulfate)	2	1	1	2	1	1	1	1	1	1	1*	2
water:	3	2	1	1	1	1	1	1	1	1	1	1
-aqua regia	x	x	3	3	2	2-3	2	1	3	1	3	3
-condensed, distilled, desalinated or demineralised does not effect polymers												
but polymers effect water												
-drinking- or mineral water;												
without additives 1) to °C	25	60	120	100	150	70	80	200		200	100	
-mineral water CO2 saturated 1)	3	1	1	1	1	1	1	1	1	1	1	1
-seawater	x	2	1	1	1	1	1	1	1	1	1	1
weathering	2	1	1	1	1	1	2	1	1	1	1-2	
white spirit	1-2	1-2	x	x	1	3	1-2	1			x	x

*) at 20°C ambient air temperature

*) when food product: please ask for food admitted qualities

*) please ask for detailed advisory and give exact chem. designation

Chemical resistance

I = excellent resistance

2= good resistance

3= mediocre resistance

x= not resistant

Medium

[illegible]

*) at 20°C ambient air temperature

*1) when food product: please ask for food admitted qualities

*2) please ask for detailed advisory and give exact chem. designation