

The following table has been compiled from data gathered from various sources and is intended as a guide only.

✓ High resistance

No damage to plastic after 30 days of contact with medium. The plastic could remain resistant for much longer – perhaps years.

■ Medium resistance

Probability of some damage to plastic after 7 – 30 days, although such effects as discoloration, reduced mechanical firmness, softening and swelling may be partially reversible.

✗ Low resistance

Immediate damage to plastic may occur as a result of contact with medium, including cracks, deformation, discoloration, dissolution and reduced mechanical firmness. Not suitable for constant contact with medium.

Chemical	PP		PS		PE-HD		PE-LD	
	20°C	50°C	20°C	50°C	20°C	50°C	20°C	50°C
Acetaldehyde	✓	✗	✗	✗	✓	■	✓	✗
Acetic acid (glacial), 100%	✓	■	✗	✗	✓	✓	✓	■
Acetic acid, 96%	✓	✓	■	■	✓	✓	✓	✓
Acetic anhydride	■	■	✗	✗	■	■	✗	✗
Acetone	✓	✓	✗	✗	✓	✓	✓	■
Acetonitrile	✓	■	✗	✗	✓	■	✓	■
Acetophenone	■	■	✗	✗	■	■	✗	✗
Acetylacetone	✓		✗	✗	✓		✓	
Acetylchloride	✓		✗	✗	✓		✓	
Acrylic acid	✓		✗	✗	✓		✓	
Acrylonitrile	■	✗	✗	✗	✓	✓	✓	✓
Adipic acid	✓	✓	✓	✓	✓	✓	✓	✓
Allyl alcohol	✓	✓	✓	■	✓	✓	✓	✓
Aluminum chloride	✓	✓	✓	✓	✓	✓	✓	✓
Aluminum hydroxide	✓	✓	■	■	✓	✓	✓	✓
Amino acids	✓	✓	✓	✓	✓	✓	✓	✓
Ammonium chloride	✓	✓	✓	✓	✓	✓	✓	✓
Ammonium fluoride	✓	✓	✓	✓	✓	✓	✓	✓
Ammonium hydroxide, 30% (Ammonia)	✓	✓	■	✗	✓	✓	✓	✓
Ammonium sulfate	✓	✓	✓	✓	✓	✓	✓	✓
n-Amyl acetate	■	✗	✗	✗	✓	■	■	✗
Amyl alcohol (Pentanol)	✓	✓	■	■	✓	✓	✓	✓
Amyl chloride (Chloropentane)	✗	✗	✗	✗	✗	✗	✗	✗
Aniline	✓	✓	✗	✗	✓	✓	✓	■
Barium chloride	✓	✓	✓	✓	✓	✓	✓	✓
Benzaldehyde	✓	✓	✗	✗	✓	✓	✓	✓
Benzene (Benzol)	✓	■	✗	✗	✓	✓	■	✗
Benzine (Gasoline)	■	■	✗	✗	✓	✓	■	✗
Benzoyl chloride	✓	■	✗	✗	✓	✓	■	✗
Benzyl alcohol	■	✗	✗	✗	■	✗	■	✗
Benzylamine	■		✗	✗	■		■	✗
Benzylchloride			✗	✗				
Boric acid, 10%	✓	✓	✓	✓	✓	✓	✓	✓
Bromine	✗	✗	✗	✗	✗	✗	✗	✗
Bromobenzene	✗	✗	✗	✗	✗	✗	✗	✗

Chemical	PP		PS		PE-HD		PE-LD	
	20°C	50°C	20°C	50°C	20°C	50°C	20°C	50°C
Bromoform	✗	✗	✗	✗	✗	✗	✗	✗
Bromonaphthalene			✗	✗				
Butanediol	✓	✓	✗	✗	✓	✓	✓	✓
1-Butanol	✓	✓	■	✗	✓	✓	✓	✓
Butylamine			✗	✗				
n-Butyl acetate	■	■	✗	✗	✓	✓	■	■
Butyl methyl ether	✓	■	✗	✗	■	✗	■	✗
Butyric acid	✗	✗	✗	✗	■	✗	✗	✗
Calcium carbonate	✓	✓	✓	✓	✓	✓	✓	✓
Calcium chloride	✓	✓	✓	✓	✓	✓	✓	✓
Calcium hydroxide	✓	✓	✓	■	✓	✓	✓	✓
Calcium hypochlorite	✓	✓	✓	✓	✓	✓	✓	✓
Calomel	✓	✓	✓	■	✓	✓	✓	✓
Carbon disulfide	✗	✗	✗	✗	✗	✗	✗	✗
Carbon tetrachloride	✗	✗	✗	✗	■	✗	✗	✗
Chloroacetaldehyde, 45%			✗	✗				
Chloroacetic acid	✓	✓	✗	✗	✓	✓	✓	✓
Chloroacetone			✗	✗				
Chlorobenzene	■	✗	✗	✗	✗	✗	✗	✗
Chlorobutane	■	✗	✗	✗	■	✗	■	✗
Chloroform	✗	✗	✗	✗	✓	■	✗	✗
Chromic acid, 10%	✓	✓	✗	✗	✓	✓	✓	✓
Chromic acid, 50%	■	■	✗	✗	✓	■	✓	■
Chromosulfuric acid	✗	✗	■	■	✓	✗	✓	✗
Copper sulfate	✓	✓	✓	✓	✓	✓	✓	✓
Cresol	■	■	✗	✗	■	✗	✗	✗
Cumene (isopropyl benzene)	■	✗	✗	✗	✓	■	■	✗
Cyclohexane	■	✗	✗	✗	■	✗	■	✗
Cyclohexanone	■	✗	✗	✗	■	✗	✗	✗
Cyclopentane	■	✗	✗	✗	■	✗	✗	✗
Decane	■				■	✗		
1-Decanol	✓		■		✓			
Dibenzylether	✓		✗	✗	✓			
Dibutyl phthalate	✓	■	✗	✗	■	✗	■	✗
Dichloroacetic acid	■	✗	■	✗	■	■	■	✗
Dichlorobenzene	■	✗	✗	✗	■	✗	■	✗
Dichloroethane	■	✗			■	✗	■	✗
Dichloromethane	■	✗	✗	✗	■	✗	■	✗
Diesel oil (Heating oil)	✓	■	✗	✗	✓	■	■	✗
Diethanolamine	■		✗	✗	■			
1,2 Diethylbenzene	✗	✗	✗	✗	■	✗	✗	✗
Diethylether	■	✗	✗	✗	■	✗	✗	✗
Diethylamine	■	✗	■	■	■	✗	✗	✗
Diethylene glycol	✓	✓	■	✗	✓	✓	✓	✓
Dimethyl sulfoxide (DMSO)	✓	✓	✗	✗	✓	✓	✓	✓
Dimethylaniline			✗	✗				
Dimethylformamide (DMF)	✓	✓	✗	✗	✓	✓	✓	✓
1,4 Dioxane	✓	■	✗	✗	✓	✓	✓	■

Chemical	PP		PS		PE-HD		PE-LD	
	20°C	50°C	20°C	50°C	20°C	50°C	20°C	50°C
Diphenyl ether			X	X				
Ethanol	✓	✓	X	X	✓	✓	✓	✓
Ethanolamine	✓							
Ethyl acetate	✓	■	X	X	✓	✓	✓	✓
Ethyl methyl ketone	✓	■	X	X	■	X	■	X
Ethylbenzene	X	X	X	X	X	X	X	X
Ethylene glycol (glycol)	✓	✓	✓	✓	✓	✓	✓	✓
Ethylene oxide	■	X	X	X	■	■	■	■
Fluoroacetic acid			X	X				
Formaldehyde, 40%	✓	✓	X	X	✓	✓	✓	✓
Formamide	✓	✓			✓	✓	✓	✓
Formic acid, 100%	✓	✓	✓	■	✓	✓	✓	✓
Glycerol	✓	✓	✓	✓	✓	✓	✓	✓
Glycolic acid, 50%	✓	✓			✓	✓	✓	✓
Heating oil (Diesel oil)	✓	■	X	X	✓	■	■	X
Heptane	■	■	X	X	■	■	■	X
Hexane	✓	■	■	X	✓	■	■	X
Hexanol	✓	✓			✓	✓	✓	✓
Hydriodic acid	✓	✓			✓	✓	✓	✓
Hydrobromic acid	✓	✓	■	X	✓	✓	✓	✓
Hydrochloric acid, 10%	✓	✓	✓	✓	✓	✓	✓	✓
Hydrochloric acid, 20%	✓	✓	✓	✓	✓	✓	✓	✓
Hydrochloric acid, 37%	✓	✓	■	■	✓	✓	✓	✓
Hydrofluoric acid, 40%	✓	✓	✓	✓	✓	✓	✓	✓
Hydrofluoric acid, 70%	✓	■	X	X	✓	■	✓	X
Hydrogen peroxide, 35%	✓	✓	✓	✓	✓	✓	✓	✓
Isoamyl alcohol	✓	✓			✓	✓	✓	✓
Isobutanol	✓	✓	■	■	✓	✓	✓	✓
Isooctane			■					
Isopropanol (2-propanol)	✓	✓	■	■	✓	✓	✓	✓
Isopropyl ether	X	X	X	X	X	X	X	X
Lactic acid	✓	✓	✓	✓	✓	✓	✓	✓
Lugol's solution (iodine-potassium iodide solution)	✓	✓	■	X	X	X	X	X
Mercury	✓	✓	✓	✓	✓	✓	✓	✓
Methanol	✓	✓	■	X	✓	✓	✓	■
Methoxybenzene			X	X				
Methyl formate			X	X				
Methyl propyl ketone	✓	■	X	X	✓	✓	✓	■
Methylene chloride	■	X	X	X	■	X	■	X
Mineral oil (engine oil)	✓	✓	✓		✓	✓	✓	■
Monochloroacetic acid	✓	✓	X	X	✓	✓	✓	✓
Nitric acid, 10%	✓	✓	X	X	✓	✓	✓	✓
Nitric acid, 30%	■	X	X	X	■	X	■	■
Nitric acid, 70%	X	X	X	X	X	X	X	X
Nitrobenzene	X	X	X	X	■	X	X	X
Nitrohydrochloric acid	■	X	■	X	X	X	X	X
Oleic acid			X	X				
Oxalic acid	✓	✓	✓	✓	✓	✓	✓	✓
Ozone	■	X	■	■	■	X	■	X
Perchloric acid	✓	X	X	X	✓	X	✓	X
Perchloroethylene	X	X	X	X	X	X	X	X
Petroleum	■	X	X	X	■	X	■	X
Petroleum ether			X	X			■	
Phenol	✓	✓	X	X	✓	✓	✓	■
Phenylethanol	■				■			
Phenylhydrazine	■				■			
Phosphoric acid, 85%	✓	✓	✓	■	✓	✓	✓	✓
Piperidine	✓				✓			
Potassium chloride	✓	✓	■	■	✓	✓	✓	✓
Potassium hydroxide	✓	✓	■	■	✓	✓	✓	✓
Potassium permanganate	✓	✓	✓	✓	✓	✓	✓	✓
Propanol	✓	✓	■		✓	✓	✓	✓
Propionic acid	✓	■	■	X	✓	■	■	X
Propylene glycol (propanediol)	✓	✓	✓	✓	✓	✓	✓	✓
Pyridine	■	■	X	X	✓	■	✓	■
Salicylaldehyde	✓	✓	X	X	✓	✓	✓	✓
Salicylic acid	✓	✓	✓	✓	✓	✓	✓	✓
Silver acetate	✓	✓	■	■	✓	✓	✓	✓
Silver nitrate	✓	✓	■	■	✓	✓	✓	✓
Sodium acetate	✓	✓	✓	✓	✓	✓	✓	✓
Sodium chloride	✓	✓	✓	✓	✓	✓	✓	✓
Sodium dichromate	✓	✓	✓	■	✓	✓	✓	✓
Sodium fluoride	✓	✓	✓	✓	✓	✓	✓	✓
Sodium hydroxide, 30%	✓	✓	✓	✓	✓	✓	✓	✓
Sulfuric acid, 60%	✓	✓	X	X	✓	✓	✓	✓
Sulfuric acid, 98%	X	X	X	X	■	X	■	X
Tartaric acid	✓	✓	✓	✓	✓	✓	✓	✓
Tetrahydrofuran (THF)	■	X	X	X	■	X	■	X
Toluene	■	X	X	X	■	■	■	X
Trichloroacetic acid	■	X	■	X	■	■	■	X
Trichlorobenzene	X	X	X	X	X	X	X	X
Trichloroethane	X	X	X	X	■	X	X	X
Trichloroethylene	X	X	X	X	■	X	X	X
Trichlorotrifluoroethane			X	X				
Triethanolamine			X	X				
Triethylene glycol	✓	✓	✓	■	✓	✓	✓	✓
Trifluoroacetic acid (TFA)			X	X				
Trifluoro ethane			X	X				
Tripropylene glycol	✓	✓	✓	✓	✓	✓	✓	✓
Turpentine	X	X	X	X	■	X	■	X
Urea	✓	✓	✓	✓	✓	✓	✓	✓
Xylene	X	X	X	X	■	X	■	X
Zinc chloride, 10%	✓	✓	✓	✓	✓	✓	✓	✓
Zinc sulfate, 10%	✓	✓	✓	✓	✓	✓	✓	✓

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