Chemical resistance of plastics

Chemical	Polypropylene		Polycarbonate		Polyethylene LD		Polyethylene HD	
	20°C	60°C	20°C	60°C	20°C	60°C	20°C	60°C
Acetic acid solution <90%	R	R	R	R	R	R	R	R
Acetic acid, glacial	R	U	U	U	A	U	R	L
Acetone	R	R	U	U	E	U	R	R
Ammonia	R	R	U	U	R	R	R	R
Aniline	R	R	U	U	U	U	R	R
Benzene	A	U	U	U	U	U	U	U
Boric acid	R	R	R	R	R	R	R	R
Bromine	U	U	U	U	U	U	U	U
Carbon tetrachloride	U	U	U	U	U	U	A	U
Chlorinated solvents	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U
Cresols	U	U	U	U	U	U	U	U
Diethyl ether	U	U	U	U	U	U	U	U
Diethylene glycol	R	R	R	U	R	R	R	E
Ethers	U	U	A	U	E	U	A	U
Ethyl acetate	A	A			A	U	A	U
Ethanol	R	R	R	R	R	U	R	R
Ethylene glycol	R	R	R	U	R	R	E	E
Formaldehyde solutions 40%	R	R	R	R	R	E	R	R
Formic acid	R	R	R	R	R	E	R	R
Hydrochloric acid conc.	E	E	L	U	R	R	SW	SW
Hydrofluoric acid 1-60%	E	E	20%	U	R	R	R	L
Hydrofluoric acid conc.	E	E	L	U	R	U	R	L
Hydrogen peroxide 30-90%	R	R	R	R	R	U	R	A
Hypochlorous acid	R	R			A	U	R	R
Magnesium hydroxide	R	R			R	R	R	R
Maleic acid	R	R			R	R	R	R
Mineral oil	R	R	R	R	A	U	R	E
Nitric acid <25%	R	R	R	U	R	R	R	R
Nitric acid 25-70% R	E	U	U	A	U	L	U	
Nitric acid >70	E	U	U	U	U	U	U	U
Oxalic acid	R	A	R	R	R	R	R	R
Paraffin	R	A	R	R	A	U		
Petroleum ether	A	U	R	R	U	U	U	U
Phosphoric acid <30%	R	R	R	R	R	R	R	R
Phosphoric acid 30-85%	R	R	R	R	R	A	R	R
Phosphoric acid >85%	R	R	R	R	A	U	R	A
Potasium hydroxide	50%	10%	U	U	R	R	R	30%
Salicylic acid	R	R	R	R	R	R	R	R
Sodium hydroxide solution	50%	10%	U	U	R	R	R	30%
Sulfuric acid <60%	R	R	R	R	R	R	R	R
Sulfuric acid 60-70%	R	U	R	R	R	A	R	A
Sulfuric acid >70%	E	U	U	U	A	U	A	L
Silicone oil	R	R	R	R	A	U	E	E
Stearic acid	R	R	R	R	R	R	R	R
Toluene	U	U	U	U	U	U	U	U
Trichloroethylene	U	U	U	U	U	U	V	U
Water	R	R	R	R	R	R	R	R

Key

R	Resistant
A	Slowly attacked (not recommended for long term storage)
L	Limited resistance
U	Unsuitable
SW	Swelling occurs
V	Vapour diffusion
E	Environmental stress cracking
%	Max concentration

Fisher Chemical