WHEATON®

Chemical Resistance of Plastics

Excellent resistance: continuous exposure to the substance does not cause damage within 30 days.

Good resistance: continuous exposure to the substance causes minor damage within 7 - 30 days

Poor resistance: not suitable for continuous exposure to the substance. Immediate damage may occur

✱ No information available

	LDPE		HDPE		PP		PMP (TPX)		PVC		PC		PS		SAN		PMMA		PTFE		POM		PBT	
Temperature °C	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50
Acetaldehyde	●	▲	●	■	■	▲	■	▲	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	✱	✱
Acetic Acid (Glacial)	■	▲	●	●	●	■	■	■	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	▲	▲	▲	✱
Acetic Anhydride	▲	▲	■	■	■	■	●	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	■	■	▲	▲	✱	✱
Acetone	■	▲	▲	▲	■	▲	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	■	✱
Ammonium Chloride (10%)	●	●	●	●	●	●	●	●	●	■	■	■	●	●	●	●	■	■	●	●	✱	✱	✱	✱
Ammonium Hydroxide (30%)	●	●	●	●	●	●	●	●	●	▲	▲	■	■	■	■	■	■	■	●	●	●	●	✱	✱
Amyl Acetate	■	▲	●	■	■	▲	●	■	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	✱
Aniline (Phenylamine)	●	■	●	●	●	●	●	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	■	■	■	✱
Aqua Regia	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	■	▲	▲	▲	●	●	●	●	▲	✱
Benzaldehyde	●	■	■	▲	▲	■	●	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	✱	✱
Benzene	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	■	●	✱
Benzoic Acid	●	●	●	●	●	■	●	●	●	■	●	■	■	■	●	●	●	●	●	●	✱	✱	▲	✱
Boric Acid (10%)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	✱
Butyl Acetate	■	■	■	■	■	■	■	■	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	■	■	✱
Butyric Acid (Butanoic acid)	▲	▲	■	▲	▲	▲	▲	▲	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	✱	✱	●	✱
Calcium Hydroxide (Saturated)	●	●	●	●	●	●	●	●	●	●	▲	▲	■	■	●	●	■	▲	●	●	●	●	●	✱
Carbon Disulphide	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	✱	✱
Carbon Tetrachloride	■	▲	■	▲	■	▲	▲	▲	●	▲	▲	▲	▲	▲	■	▲	▲	▲	●	●	■	■	✱	✱
Chloroform	■	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	▲	▲	▲	✱
Citric Acid (1M)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	✱	●	●	●	✱	✱	✱	✱
Cresol	▲	▲	■	▲	■	■	▲	▲	▲	▲	▲	▲	■	▲	▲	▲	▲	▲	●	●	✱	✱	▲	✱
Cyclohexane	■	▲	■	▲	■	▲	▲	▲	▲	▲	●	■	▲	▲	■	▲	■	✱	●	●	●	●	✱	✱
Dibutyl Phthalate	■	▲	■	▲	■	▲	■	■	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	✱
Dichlorobenzene	■	▲	■	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	▲	▲	✱	✱
Diethyl Ether	▲	▲	■	▲	■	▲	▲	▲	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	✱
Diethylene Glycol	●	●	●	●	●	●	●	●	■	▲	■	■	●	●	●	●	▲	▲	●	●	●	●	▲	✱
Dimethyl Formamide (DMF)	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	✱
Dimethyl Sulfoxide (DMSO)	●	●	●	●	●	●	●	●	▲	▲	▲	▲	✱	■	▲	▲	▲	▲	●	●	✱	✱	●	✱
Dioxane	■	■	■	■	▲	▲	■	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	■	■	■	▲
Ethyl Acetate (Ethyl Ester)	●	●	●	●	■	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	■	■	✱	✱	▲	✱
Ethyl Alcohol (Absolute Ethanol)	●	■	●	●	●	●	●	■	●	●	●	■	●	■	▲	▲	▲	▲	●	●	●	●	●	✱
Ethyl Chloride (Chloroethane)	■	▲	▲	▲	■	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	✱	✱	✱	✱
Ethylene Chloride	■	▲	▲	▲	■	▲	■	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	▲	▲	✱	✱
Ethylene Oxide (Pure)	■	■	■	■	■	▲	■	▲	▲	▲	■	▲	▲	▲	▲	▲	●	●	●	●	●	●	■	✱
Ethylene Oxide (Gas)	■	■	●	●	●	●	■	■	■	■	●	●	●	■	■	■	●	●	●	●	✱	✱	✱	✱
Formaldehyde (Formalin) 40%	●	■	●	■	●	●	●	●	●	●	●	●	■	■	■	▲	●	■	●	●	●	●	●	✱
Formic Acid (50%)	■	■	●	●	●	■	●	●	●	▲	■	■	■	■	●	■	✱	✱	●	●	✱	✱	■	✱
Formic Acid (100%)	■	■	●	●	●	■	●	●	●	▲	■	▲	■	■	▲	▲	✱	✱	●	●	▲	▲	✱	✱
Glycerine (Glycerol)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	■	■	●	✱

	LDPE		HDPE		PP		PMP (TPX)		PVC		PC		PS		SAN		PMMA		PTFE		POM		PBT	
Temperature °C	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50	20	50
Hexane	▲	▲	■	■	■	■	■	▲	●	▲	■	▲	▲	▲	●	●	●	✱	●	●	●	●	●	✱
Hydrobromic Acid (69%)	●	●	●	■	●	■	●	●	●	●	■	■	■	■	■	■	▲	▲	●	●	▲	▲	▲	✱
Hydrochloric Acid (5%)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	■	✱	●	●	▲	▲	▲	✱
Hydrochloric Acid (35%)	●	●	●	●	●	■	●	■	●	●	■	▲	●	●	●	■	▲	▲	●	●	▲	▲	▲	✱
Hydrofluoric Acid (48%)	●	●	●	●	●	■	●	■	■	■	■	▲	▲	▲	●	■	▲	▲	●	●	▲	▲	■	✱
Hydrogen Peroxide (30%)	●	●	●	●	●	■	●	■	●	●	●	●	●	■	●	●	■	▲	●	●	●	▲	●	✱
Lactic Acid (85%)	●	●	●	●	●	■	●	■	●	■	●	■	●	●	●	●	●	●	●	●	●	▲	●	✱
Methyl Acetate	●	▲	●	●	●	■	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	✱	✱	●	●	✱	✱	▲	✱
Methyl Alcohol (Methanol)	●	■	●	●	●	●	●	■	●	●	■	■	■	■	▲	▲	▲	▲	●	●	●	●	●	✱
Methyl Ethyl Ketone (Butanone)	▲	▲	▲	▲	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	✱	✱	●	✱
Methylene Chloride (Dichloro Methane)	▲	▲	●	▲	●	▲	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	▲	▲	▲	✱
Mineral Oil	■	●	●	●	●	■	●	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	✱
Nitric Acid (10%)	●	●	■	■	■	■	■	■	■	●	●	■	■	●	■	■	●	✱	●	●	▲	▲	■	✱
Nitric Acid (70%)	●	▲	●	▲	▲	▲	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	▲	▲	■	✱
Nitrobenzene	▲	▲	▲	▲	▲	▲	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	■	▲	●	✱
Oxalic Acid (10%)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	✱
Perchloric Acid (70%)	■	▲	■	▲	■	▲	■	▲	■	▲	▲	▲	■	■	■	■	●	●	■	■	▲	▲	✱	✱
Phenol (100%)	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	▲	▲	▲	✱
Phosphoric Acid (85%)	●	▲	●	●	●	■	●	■	●	■	●	■	●	■	●	●	■	▲	●	●	●	▲	✱	✱
Picric Acid	▲	▲	▲	▲	▲	▲	●	●	▲	▲	▲	▲	■	■	●	●	✱	✱	●	●	✱	✱	✱	✱
Potassium Hydroxide (30%)	●	●	●	●	●	●	●	●	●	●	▲	▲	■	■	●	●	●	●	●	●	●	●	▲	✱
Potassium Permanganate	●	●	●	●	●	■	●	●	●	■	●	●	■	■	■	■	▲	●	●	●	■	■	●	✱
Propylene Glycol	●	●	●	●	●	●	●	●	■	■	■	■	●	●	●	●	✱	✱	●	●	●	●	✱	✱
Pyridine	▲	▲	▲	▲	●	●	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	■	✱	✱
Salicylic Acid	●	●	●	●	●	●	●	●	■	■	●	■	●	■	●	■	✱	✱	●	●	▲	▲	●	✱
Silver Nitrate	●	■	●	●	●	●	●	●	●	■	●	●	●	●	●	■	✱	✱	●	●	■	■	✱	✱
Sodium Hydroxide (50%)	■	■	●	●	●	●	●	●	●	●	▲	▲	●	■	●	■	●	▲	●	●	●	●	▲	✱
Sodium Hypochlorite (15%)	●	■	●	■	■	▲	●	●	●	●	■	■	●	■	●	●	●	●	●	●	✱	✱	▲	✱
Sulfuric Acid (20%)	●	●	●	●	●	●	●	●	●	■	●	■	●	●	●	■	●	●	●	●	✱	✱	✱	✱
Sulfuric Acid (60%)	●	■	●	■	■	■	●	■	●	■	■	■	●	■	▲	▲	▲	▲	●	●	▲	▲	✱	✱
Sulfuric Acid (98%)	■	■	■	■	■	●	■	■	■	▲	▲	▲	■	■	▲	▲	▲	▲	●	●	▲	▲	▲	✱
Tetrahydrofuran (THF)	■	▲	■	●	■	■	■	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	■	■	●	✱
Toluene	■	▲	▲	▲	▲	▲	■	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	▲	▲	●	✱
Trichloroacetic Acid	■	▲	■	▲	■	■	●	●	■	▲	■	▲	▲	▲	▲	▲	✱	✱	●	●	✱	✱	▲	✱
Trichloroethylene	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	▲	▲	▲	▲
Turpentine	■	▲	■	▲	■	▲	■	▲	■	■	■	▲	▲	▲	■	▲	■	▲	●	●	●	●	●	✱
Xylene	▲	▲	■	▲	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	▲	✱
Zinc Chloride (10%)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	■	●	✱
Zinc Sulphate (10%)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	■	▲	✱	✱

This chart gives general guidelines only on the chemical resistance of plastics. There are many factors that influence chemical resistance, we therefore recommend that you test for your own application before selecting the appropriate Azlon® product. If you have any doubts please contact SciLabware for assistance.