CHEMICAL RESISTANCE CHART

Home (https://www.plasticsintl.com/) / Chemical Resistance Chart

Legend
A = No Attack, possibly slight absorption. Negligible effect on mechanical properties.
B = Slight attack by absorption. Some swelling and a small reduction in mechanical likely.
C = Moderate attack of appreciable absorption. Material will have limited life.
D = Material will decompose or dissolve in a short.

Aq. = Aqueous Solution
CONC = Concentrated Aqueous Solution
SAT = Saturated Aqueous Solution
* = No data available

Where Aqueous Solutions are Shown the concentration as a weight % is given.

Material Properties

SHOW SELECTED SHOW ALL

Alphabetical Listing of Materials	Concentration + Weight %	ABS	Acetal	Acrylic	CAB	CPVC	ECTFE (Halar®)	Fluorosint®	HDPE	Nylon®, Type 6/6	PEEK	PET	Polycarbonate	Polypropylene	Polysulfone	PPS	PVC, Type I	PVC, Type II	PVDF	PTFE
☐ Acetaldehyde Aq.	40	D	A	D	*	D	*	A	C	B	A	A	*	C	*	A	D	D	D	A
☐ Acetic Acid Aq.	10	*	B	B	C	A	A	A	*	C	A	B	D	*	A	A	A	A	B	A
☐ Acetone		D	B	D	*	D	A	A	A	A	B	B	C	A	B	A	D	D	D	A
☐ Alcohols, Aliphatic		*	A	D	*	*	A	A	*	B	A	A	*	*	*	A	*	*	A	A
☐ Aluminum Chloride Aq.	10	*	*	*	A	A	*	A	B	*	A	A	A	A	*	A	A	A	A	A
☐ Aluminum Sulphate Aq.	10	*	*	*	A	A	A	A	A	*	A	*	A	A	*	A	A	A	A	A
☐ Ammonia Gas		*	*	*	*	A	A	A	A	C	A	A	*	A	*	*	A	A	D	A
☐ Ammonium Carbonate Aq.	10	*	*	*	*	A	A	A	A	A	A	A	D	A	*	A	A	A	A	A
☐ Ammonium Chloride Aq.	10	*	*	*	A	A	A	A	A	A	A	A	C	A	*	A	A	A	A	A
☐ Amyl Acetate		D	*	D	*	*	*	A	D	A	A	*	*	D	*	A	D	D	B	A
☐ Anillne		*	A	D	*	D	A	A	A	C	A	A	*	C	*	A	D	D	C	A
☐ Antimony Trichoride Aq.	10	*	*	A	*	A	A	A	A	C	A	*	*	A	*	*	A	A	*	A

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☐ Barlium Chloride Aq.	10	*	*	A	*	A	A	A	A	A	A	*	*	A	*	A	A	A	A	A
☐ Barlium Sulphate Aq.	10	*	*	*	*	A	A	A	A	*	A	*	*	A	*	*	A	A	*	A
☐ Benzene		D	A	D	D	D	A	A	D	A	A	A	D	D	D	A	D	D	C	A
☐ Benzene Sulphonic Acid	10	*	*	*	*	*	A	A	A	D	A	*	*	*	*	A	*	*	B	A
☐ Bleaching Lye	10	C	*	*	*	A	A	A	B	C	A	*	*	B	*	*	A	A	A	A
☐ Boric Acid Aq.	10	*	*	*	*	A	A	A	A	A	A	A	*	A	*	A	A	A	A	A
☐ Boron Trifluoride		*	*	*	*	A	*	A	A	D	*	*	*	A	*	*	A	A	A	*
☐ Bromine Aq.	30	*	*	*	*	D	A	*	D	D	B	*	*	D	*	A	A	D	A	*
☐ Butanol		*	*	*	*	A	*	A	A	B	A	B	*	*	C	A	A	D	*	A
☐ Butyric Acid Aq.	20	*	*	C	*	*	*	A	D	B	A	*	*	D	*	A	*	*	A	A
☐ Butyric Acid	COINC	D	*	D	*	*	*	A	D	C	A	*	*	D	*	A	A	D	A	A
☐ Calcium Hypochlorite		*	*	*	C	*	A	A	A	D	A	A	C	A	*	A	A	A	A	A
☐ Camphor		*	*	*	*	*	*	A	*	A	A	*	*	*	*	A	*	*	*	A
☐ Carbon Tetrachloride		D	A	*	C	C	A	A	D	A	A	A	*	D	A	A	C	D	A	A
☐ Chloral Hydrate		*	*	*	*	A	*	A	D	D	A	*	*	D	*	*	A	A	A	A
☐ Chlorine Aq.	10	*	*	*	*	A	*	A	C	D	A	*	*	B	D	*	A	A	B	A
☐ Chloroform		D	*	*	D	D	A	A	C	D	A	D	D	D	D	A	D	D	B	A
☐ Chlorosulphonic Acid Aq.	10	*	*	D	*	*	A	A	D	D	A	*	*	C	*	D	C	C	D	A
☐ Chrome Alum Aq.	10	*	*	*	*	*	*	A	*	A	A	*	*	*	*	*	A	A	A	A
☐ Chromic Acid Aq.	10	*	*	D	A	A	A	A	A	C	A	A	C	A	D	B	A	D	B	A
☐ Citric Acid Aq.	10	B	*	C	B	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A
☐ Creosote		*	*	*	*	*	*	A	*	A	A	*	*	*	*	*	*	*	A	A
☐ Cresylic Acid		*	*	*	*	A	A	A	D	D	A	*	*	D	*	*	A	C	A	A
☐ Cyclohexanol		*	*	*	*	D	A	A	D	B	A	A	*	D	*	A	D	D	A	A
☐ Cyclohexanone		*	*	*	D	D	A	A	D	A	A	A	*	D	D	*	D	D	A	A
☐ Detergents, Organic		*	*	*	*	A	A	A	*	A	A	A	*	*	*	A	A	A	*	A
☐ Dibutylphthalate		*	*	*	*	*	*	A	*	A	A	*	*	*	*	*	*	*	D	A
☐ Diesel Oil		*	*	A	*	*	A	A	*	A	A	A	*	*	*	A	*	*	*	A

Alphabetical Listing of Materials	Concentration + Weight %	ABS	Acetal	Acrylic	CAB	CPVC	ECTFE (Halar®)	Fluorosint®	HDPE	Nylon®, Type 6/6	PEEK	PET	Polycarbonate	Polypropylene	Polysulfone	PPS	PVC, Type I	PVC, Type II	PVDF	PTFE
☐ Dioxan		*	A	*	*	*	A	A	*	A	A	A	*	*	*	*	*	*	*	A
☐ Edible Oils		*	A	*	*	*	*	A	*	A	A	A	*	*	*	A	*	*	A	A
☐ Ether, Diethyl		*	A	*	*	*	*	A	*	A	A	A	*	*	*	A	*	*	*	A
☐ Ethyl Acetate		D	*	D	*	*	A	A	C	A	A	*	D	A	*	A	D	D	D	A
☐ Ethylene Dichloride		D	*	*	*	D	A	A	D	B	A	A	*	D	*	A	D	D	A	A
☐ Ethylene Glycol Aq.	96	*	*	A	D	A	A	A	A	B	A	*	C	A	A	A	A	A	A	A
☐ Ferrous Chloride Aq.	10	*	*	A	*	A	A	A	*	C	A	*	*	*	*	A	A	A	A	A
☐ Fluorine		*	*	*	*	A	A	C	C	D	D	*	*	C	*	*	A	A	A	C
☐ Fluosilicic Acid Aq.	10	*	*	*	A	*	A	*	A	D	*	*	*	A	*	A	*	*	A	*
☐ Freon 12 (Arcton 12)		*	*	*	B	A	A	A	A	A	A	A	A	A	*	B	A	A	*	A
☐ Formaldehyde Aq.	40	*	A	A	A	A	A	A	A	B	A	A	C	A	A	A	A	B	A	A
☐ Formic Acid Aq.	3	*	D	D	*	A	A	A	*	B	B	B	A	*	*	A	A	A	A	A
☐ Fruit Juices	COINC	A	*	*	*	A	A	A	A	B	A	A	C	A	*	A	A	A	A	A
☐ Glycerine		A	*	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
☐ Heptane		*	A	*	*	*	A	A	*	A	A	A	C	*	A	A	A	A	A	A
☐ Hydrobromic Acid Aq.	10	A	*	*	*	*	A	A	*	D	D	*	*	C	A	A	A	A	A	A
☐ Hydrochloric Acid Aq.	0.4	*	*	A	B	A	A	A	A	*	A	A	A	A	A	A	A	A	A	A
☐ Hydrofluoric Acid Aq	4	*	D	C	C	*	A	A	B	C	D	B	B	A	B	D	A	A	A	*
☐ Hydrogenated Vegetable Oils		*	*	*	*	*	*	A	*	A	A	A	*	*	*	A	*	*	A	A
☐ Hydrogen Peroxide Aq.	0.5	*	*	*	A	*	A	A	A	C	A	A	A	A	A	A	A	A	B	A
☐ Hydrogen Peroxide Aq.	1	*	*	*	*	*	A	A	*	*	A	A	A	*	A	A	*	*	B	A
☐ Hydrogen Peroxide Aq.	3	*	D	*	*	*	A	A	*	D	A	A	A	*	A	A	*	*	B	A
☐ Hydrogen Sulphide Aq.	SAT	*	C	A	A	A	A	A	A	B	A	C	*	A	*	A	A	A	A	A
☐ Hydroquinone		*	*	*	B	*	A	A	A	B	A	*	*	A	*	*	A	A	A	A

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☐ Iodine (in Alcohol)		*	*	*	*	*	A	A	D	D	A	*	*	B	*	*	*	*	B	A
☐ Iodine (in Pot Iodine) Aq.	3	*	*	*	*	*	A	A	D	D	A	*	*	B	*	*	*	*	A	A
☐ Isopropylalcohol		C	A	*	C	*	A	A	A	B	A	A	*	A	*	A	*	*	A	A
☐ Lactic Acid Aq.	10	*	B	*	A	*	A	A	A	C	A	A	A	A	*	A	A	A	A	A
☐ Lactic Acid Aq.	90	*	*	*	*	*	A	A	*	*	A	*	*	*	*	A	*	*	A	A
☐ Lead Acetate Aq.	10	*	*	*	*	A	A	A	A	B	A	*	*	A	*	A	A	A	A	A
☐ Linseed Oil		*	A	*	*	A	A	A	D	A	A	*	A	*	A	A	A	A	A	*
☐ Lubricating Oils (Petroleum)		*	A	*	*	A	*	A	C	A	A	A	B	C	*	A	A	A	A	A
☐ Magnesium Chloride Aq.	10	*	A	*	*	A	A	A	A	A	A	A	A	A	*	A	A	A	A	A
☐ Maleics Acid	COINC	*	*	*	*	A	A	A	A	*	A	*	*	A	*	*	A	A	A	*
☐ Malonic Acid Aq.	COINC	*	*	*	*	*	*	A	*	*	A	*	*	*	A	*	*	*	*	A
☐ Mercuric Chloride Aq.	6	*	B	A	*	A	A	A	A	C	A	*	*	A	*	*	A	A	A	A
☐ Methyl Acetate		*	B	*	D	*	*	A	*	A	A	A	*	*	*	A	*	*	A	A
☐ Methyl Ethyl Ketone		D	B	D	D	D	A	A	D	A	A	A	D	D	D	A	D	D	D	A
☐ Methyl Chloride		*	C	*	D	D	A	A	D	C	A	D	D	D	D	A	D	D	A	A
☐ Milk		B	A	*	*	A	A	A	A	A	A	A	A	A	*	A	A	A	A	A
☐ Mineral Oils		*	A	*	*	A	A	A	B	A	A	*	C	C	*	A	A	A	A	A
☐ Naphthalene		D	*	*	*	D	A	A	B	A	A	A	*	B	*	A	D	D	C	A
☐ Nickel Sulphate Aq.	10	*	*	A	*	A	A	A	A	A	A	*	A	A	*	A	A	A	A	A
☐ Nitric Acid Aq.	0.1	B	D	A	D	A	A	A	A	C	A	*	A	A	A	*	A	A	A	A
☐ Nitric Acid Aq.	10	*	D	*	*	A	A	A	*	D	A	C	*	*	A	A	A	A	B	A
☐ Oleic Acid		*	C	*	A	*	A	A	A	A	A	*	C	B	A	A	A	A	A	A
☐ Oxalic Acid Aq.	10	*	C	A	*	A	A	A	A	C	A	*	*	A	A	A	A	A	C	A
☐ Ozone		*	C	*	B	A	A	A	D	C	A	A	D	C	A	*	A	A	B	A
☐ Paraffin		*	A	*	*	*	A	A		A	A	A	*	*	*	A	A		A	A
☐ Perchloric Acid Aq.	10	*	C	*	*	A	A	A	B	D	A	A	*	C	*	*	A	A	A	A
☐ Petrol		*	A	*	*	*	A	A	A	A	A	A	*	*	*	A	*	*	A	A
☐ Phenol Aq.	75	*	D	*	*	*	A	A	*	D	D	C	*	*	*	*	*	*	C	A

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☐ Phosphoric Acid Aq.	0.3	*	*	A	A	A	A	A	A	*	A	A	C	A	A	A	A	A	A	A
☐ Phosphoric Acid Aq.	3	*	C	*	*	A	A	A	*	*	A	A	*	*	A	A	A	A	A	A
☐ Phosphoric Acid Aq.	10	*	C	*	*	A	A	A	*	D	A	B	*	*	A	A	A	A	A	A
☐ Phthalic Acid Aq.	SAT	*	*	*	*	*	*	A	*	B	A	*	*	*	*	*	*	*	B	A
☐ Potassium Bicarb. Aq.	60	*	*	*	*	A	*	A	A	A	A	A	*	A	*	A	A	A	A	A
☐ Potassium Chloride Aq.	90	A	*	A	A	A	A	A	A	A	A	A	A	A	*	A	A	A	A	A
☐ Potassium Ferrocyanide Aq.	30	*	*	A	*	A	A	A	*	A	A	*	*	*	*	*	A	A	A	A
☐ Propane Gas		*	*	*	A	A	A	A	D	A	B	A	*	C	*	A	A	A	A	A
☐ Salicylic Acid		*	*	*	*	*	A	A	*	A	A	A	*	*	*	*	*	*	A	A
☐ Silicone Fluids		D	*	*	*	*	A	A	*	A	A	A	*	*	*	A	*	*	A	A
☐ Silver Nitrate		*	A	*	A	A	A	A	A	A	A	A	*	A	*	A	A	A	A	A
☐ Soap Solutions		B	A	*	*	A	A	A	A	A	A	A	*	A	*	A	A	A	A	A
☐ Sodium Acetate Aq.	60	*	*	A	A	A	A	A	A	B	A	A	*	A	*	A	A	A	A	A
☐ Sodium Bicarbonate Aq.	50	*	A	A	A	A	A	A	A	A	A	A	A	B	*	A	A	A	A	A
☐ Sodium Hypochlorite 15% (Chlorine Bleach)		*	C	A	*	*	A	A	A	D	A	A	A	A	A	B	A	A	A	A
☐ Sodium Nitrate Aq.	50	*	A	A	*	A	A	A	A	A	A	A	*	A	*	A	A	A	A	A
☐ Stannic Chloride Aq.	10	*	*	*	*	*	*	A	A	C	A	*	*	A	*	A	*	*	A	A
☐ Stearic Acid		*	*	*	*	A	A	A	A	A	A	*	*	A	*	*	A	A	A	A
☐ Styrene (Monomer)		*	*	*	D	*	A	A	*	A	A	C	*	*	*	A	*	*	A	A
☐ Sulphur Dioxide (Dry Gas)	100	D	B	A	C	A	A	A	A	B	A	B	*	A	*	A	A	A	B	A
☐ Sulphuric Acid Aq.	2	B	D	D	*	A	A	A	A	C	A	A	A	A	A	A	A	A	B	A
☐ Sulphuric Acid Aq.	5	*	D	*	*	*	A	A	*	D	A	A	*	*	A	A	A	A	B	A
☐ Sulphurous Acid Aq.	10	*	C	A	*	A	A	A	A	D	A	C	*	A	*	*	A	A	*	A
☐ Tallow		*	*	*	*	*	*	A	A	A	A	*	*	*	*	A	*	*	A	A

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☐ Tar		*	*	*	*	*	A	A	*	B	A	*	*	*	*	A	*	*	A	A
☐ Toluene		D	A	*	D	D	*	A	D	A	A	A	D	D	D	A	D	D	B	A
☐ Transformer Oil		*	*	D	*	*	A	A	*	A	A	*	*	*	*	A	*	*	A	A
☐ Trichlorethylene		*	B	*	D	D	A	A	D	B	A	B	*	D	D	A	D	D	A	A
☐ Triethanolamine		*	*	*	*	*	A	A	A	A	A	B	*	A	*	A	A	A	A	A
☐ Turpentine		D	A	*	*	A	A	A	D	A	A	*	D	D	B	A	A	C	A	A
☐ Trisodium Phosphate Aq.	95	*	*	A	*	A	A	A	A	*	A	A	*	A	*	A	A	A	*	A
☐ Urea		*	A	*	*	A	A	A	A	A	A	A	*	A	*	A	A	A	A	A
☐ Vaseline		B	A	*	*	A	A	A	A	A	A	A	A	*	*	A	A	A	A	A
☐ Vegetable Oils		C	A	*	*	*	A	A	*	A	A	A	*	*	*	A	*	*	A	A
☐ Vinegar		A	B	*	*	A	A	A	A	C	A	A	*	A	*	A	A	A	A	A
☐ Vinyl Chloride		*	*	*	*	*	*	A	*	A	A	*	*	*	*	A	*	*	A	A
☐ Water		A	A	*	*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
☐ Wax (Molten)		C	A	*	*	*	A	A	*	A	A	A	*	*	*	A	*	*	*	A
☐ White Spirit		*	A	*	*	A	A	A	*	A	A	*	*	*	*	A	*	*	A	A
☐ Wines and Spirits		B	*	*	*	A	A	A	*	B	A	A	A	*	*	A	A	A	A	A
☐ Xylene		D	*	D	D	D	A	A	D	D	A	A	*	D	D	A	D	D	A	A
☐ Xylenol		*	*	*	*	A	*	A	*	D	A	*	*	*	*	*	*	*	*	A
☐ Zinc Chloride Aq.	10	*	*	A	A	A	*	A	A	C	A	*	C	A	A	A	A	A	A	A

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