



Chemical Compatibility Guide

Chemical	Container Materials							Closure Liner Materials					Closure Materials			Septa, Stopper & Tubing Materials							
	Glass	HDPE	LDPE	PC	PET	PETG	PP	Al Foil	LDPE	Poly-Vinyl	PTFE	SBR	Silicone	PBT	Phenolic	PP	Urea	Butyl Rubber	Natural Rubber	FKM	PTFE	Silicone	TPE
Acetic acid, Glacial	A	A	B	C	A	C	A	A	B	B	A	C	B	C	A	A	D	B	D	B	A	B	B
Acetone	A	D	D	D	C	D	B	A	D	D	A	D	B	D	A	B	A	B	D	B	A	B	D
Acetonitrile	A	A	A	D	B	C	A	A	A	D	A	B	D	-	A	A	-	D	D	D	A	D	D
Acrylonitrile	A	A	A	D	B	-	B	B	A	D	A	C	D	-	D	B	-	D	D	D	A	D	-
Ammonium Sulfide	A	A	A	D	-	-	A	D	A	A	A	B	A	-	A	A	C	A	C	A	A	A	B
Benzene	A	D	D	D	C	D	D	B	D	D	A	D	D	A	A	D	A	D	A	D	A	D	D
Bleach	A	A	B	B	C	C	B	D	B	A	A	D	B	C	D	B	-	A	A	D	A	B	A
Boric Acid	A	A	A	A	A	A	A	D	A	A	A	A	A	A	B	A	-	A	A	A	A	A	B
Carbonic Acid	A	A	A	A	-	A	A	B	A	A	A	B	A	B	-	A	-	A	A	A	A	A	D
Chlorobenzene	A	C	D	D	B	C	C	A	D	D	A	D	D	B	A	C	B	D	A	D	A	D	D
Chloroform	A	C	C	D	D	D	D	A	C	D	A	D	D	D	A	D	A	D	A	D	A	D	D
Dichloromethane (DCM)	A	C	D	D	D	D	C	D	D	D	A	D	D	D	C	C	B	D	B	D	A	D	D
Diethylamine	A	C	D	D	-	-	B	A	D	D	A	B	B	-	-	B	-	B	C	B	A	B	-
Dimethyl Formamide (DMF)	A	A	A	D	B	C	A	A	A	D	A	D	B	C	A	A	-	D	D	D	A	B	C
Dimethyl Sulfoxide (DMSO)	A	A	A	D	B	C	A	A	A	D	A	D	D	C	-	A	-	D	D	D	A	D	-
Dioxane	A	B	B	D	A	A	D	D	B	D	A	D	D	B	A	D	-	B	D	D	A	D	-
Ether	A	C	D	D	A	A	D	B	D	D	A	D	D	A	B	D	B	D	C	D	A	D	D
Ethyl Acetate	A	B	B	D	B	C	C	B	B	D	A	D	C	C	A	C	B	C	D	D	A	C	D
Ethyl Alcohol	A	A	A	A	A	A	A	B	A	B	A	A	B	A	B	A	A	A	A	A	A	B	B
Ethylene Glycol	A	A	A	A	A	A	A	B	A	A	A	A	A	A	B	A	B	A	A	A	A	A	B
Formaldehyde	A	A	A	A	B	A	A	A	A	C	A	B	B	A	B	A	A	A	C	C	A	B	A
Formic Acid 50%	A	A	B	B	-	-	A	C	B	B	A	B	C	A	C	A	D	A	C	B	A	C	B
Gasoline	A	C	D	C	B	B	C	A	D	D	A	D	D	A	B	C	A	D	A	D	A	D	D
Glycerine	A	A	A	A	-	A	A	A	A	C	A	A	B	A	A	A	-	A	A	A	A	B	B
Heptane	A	C	D	B	B	-	C	A	D	C	A	D	D	A	A	C	A	D	A	D	A	D	C
Hexane	A	B	D	C	C	B	B	A	D	D	A	D	D	A	B	B	-	D	A	D	A	D	B
Hydrochloric Acid (HCL) 50%	A	A	A	D	B	C	A	D	A	B	A	D	D	C	A	A	D	A	A	B	A	D	B
Hydrofluoric Acid (HF) 50%	D	A	A	D	C	D	A	D	A	C	A	D	D	C	D	A	D	C	A	C	A	D	A
Hydrogen Peroxide 50%	B	A	A	A	B	B	A	A	A	C	A	C	B	B	D	A	D	B	A	B	A	B	B
Iodine	A	C	D	C	A	-	C	A	D	C	A	B	A	D	-	C	-	B	A	D	A	A	D
Isopropyl Alcohol	A	A	A	A	A	A	A	A	A	B	A	B	A	A	A	A	-	A	A	A	A	A	B
Methyl Alcohol	A	A	A	B	B	A	A	A	A	C	A	A	A	B	B	A	A	A	D	A	A	A	A
Methyl Ethyl Ketone (MEK)	A	D	D	D	B	C	B	A	D	D	A	D	D	C	A	B	-	A	D	D	A	D	B
Methylene Chloride	A	C	D	D	D	C	D	D	D	A	D	D	D	D	C	C	B	D	B	D	A	D	D
Nitric Acid 50%	A	C	B	B	C	B	C	D	B	B	A	D	D	C	B	C	D	C	B	C	A	D	B
Pentane	A	C	C	A	-	-	D	A	C	D	A	D	D	B	-	D	-	D	A	D	A	D	B
Perchloric Acid 50%	B	B	B	D	B	C	B	D	B	D	B	D	D	-	-	B	-	B	A	D	B	D	A
Phenol 50%	A	D	D	D	D	D	D	A	D	C	A	D	D	D	A	D	-	D	A	D	A	D	D
Phosphoric Acid 50%	A	A	A	A	B	-	A	B	A	B	A	D	D	B	B	A	D	B	A	D	A	D	A
Picric Acid	A	D	D	D	B	-	D	A	D	D	A	B	D	D	A	D	D	B	A	B	A	D	D
Potassium Hydroxide	D	A	A	D	D	D	A	D	A	A	A	B	C	C	D	A	-	A	B	B	A	C	A
Sodium Hydroxide 50%	D	A	B	D	D	C	A	D	B	C	A	A	B	C	D	A	C	A	B	A	A	B	C
Sodium Peroxide	A	B	B	A	-	-	B	C	B	A	A	B	D	B	B	B	D	A	A	B	A	D	A
Sodium Thiosulfate	A	A	A	B	B	-	A	A	A	A	A	B	A	B	A	B	A	A	B	A	A	-	-
Sulfuric Acid 50%	A	A	A	B	B	C	B	C	A	C	A	D	D	B	C	B	D	D	A	D	A	D	A
Tetrahydrofuran (THF)	A	C	C	D	B	D	B	A	C	D	A	D	D	D	A	B	-	C	D	D	A	D	D
Toluene	A	C	C	D	C	C	C	A	C	C	A	D	D	D	A	C	-	D	B	D	A	D	D
Trifluoroacetic Acid (TFA) 50%	A	A	A	D	B	-	A	B	A	A	A	B	D	-	-	A	-	B	C	B	A	D	-
Vegetable Oil	A	B	B	A	A	A	A	A	B	A	A	D	A	A	A	A	A	C	A	D	A	A	-
Xylene	A	C	D	D	C	-	D	A	D	D	A	D	D	C	A	D	B	D	A	D	A	D	D



(Tests conducted at room temp)

- A - Resistant
- B - Limited Resistance
- C - Poor Resistance
- D - Not Resistant
- - Unknown

Al Foil - aluminum foil

FKM - fluoroelastomer

HDPE - high density polyethylene

LDPE - low density polyethylene

PBT - polybutylene terephthalate

PC - polycarbonate

PET - polyethylene terephthalate

PETG - polyethylene terephthalate g copolymer

PP - polypropylene

PTFE - polytetrafluoroethylene

SBR - styrene butadiene rubber

TPE - thermoplastic Elastomer, C-Flex

Although the information in this chart was acquired from reputable sources, it should only be used as a guide in selecting a container and closure system. Because so many factors can affect the chemical resistance of a material, in-house testing under actual conditions should be performed. DWK Life Sciences accepts no responsibility for the accuracy of this data or for any consequences resulting from its use.

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