

CHEMICAL RESISTANCE OF BELZONA® 1511

FN 10178



	Chemical name (Synonym)	Chemical formula (CAS number)	Concentration	20°C 68°F	60°C 140°F	90°C 194°F
Inorganic Acids	Hydrochloric acid	HCl (7647-01-0)	10%	G*	M	P
			5%	Ex*	G	M
			1%	Ex	G	G
	Nitric acid	HNO ₃ (7697-37-2)	10%	M	P	P
5%			G*	M	M	
Phosphoric acid (orthophosphoric acid)	H ₃ PO ₄ (7664-38-2)	10%	M	M	P	
		5%	M	M	P	
Sulfuric acid	H ₂ SO ₄ (7664-93-9)	10%	M	P	P	
		5%	G	M	P	
		1%	Ex	G	M	
Organic Acids	Acetic acid (ethanoic acid)	CH ₃ COOH (64-19-7)	5%	G*	P	P
			2%	Ex*	M	P
			1%	Ex*	Ex	Ex
			0.1%	Ex*	Ex	Ex
Phenol (hydroxybenzene)	C ₆ H ₅ OH 108-95-2	-	P	P	P	
Alcohols, Aldehydes and Ketones	Acetone	(CH ₃) ₂ CO (67-64-1)	-	M	-	-
	Amyl alcohol (1-Pentanol)	C ₅ H ₁₁ OH (71-41-0)	-	G	M	M
	n-Butanol (butyl alcohol)	C ₄ H ₉ OH (71-36-3)	-	G	M	M
	Ethanol (ethyl alcohol)	CH ₃ CH ₂ OH (64-17-5)	-	G	M	-
	Ethylene glycol (ethan-1,2-diol, monoethylene glycol, MEG)	(CH ₂ OH) ₂ (107-21-1)	-	Ex	Ex	Ex
	Glycerol (glycerine, propane-1,2,3-triol)	HOCH ₂ CH(OH)CH ₂ OH (56-81-5)	-	Ex	Ex	Ex
	Isopropyl alcohol (IPA) (isopropanol, propan-2-ol)	CH ₃ CH(OH)CH ₃ (67-63-0)	-	G	M	M
	Methanol (methyl alcohol)	CH ₃ OH (67-56-1)	-	G	M	-
	Methyl ethyl ketone (MEK, butanone)	CH ₃ C(O)CH ₂ CH ₃ (78-93-3)	-	M	P	-
	Propan-1-ol (Propyl alcohol)	CH ₃ CH ₂ CH ₂ OH (71-23-8)	-	G	M	M
Alkalis/Bases	Ammonia	NH ₃ (7664-41-7)	25%	Ex	-	-
	Potassium hydroxide (caustic potash)	KOH (1310-58-3)	40%	Ex	Ex	Ex
			20%	Ex	Ex	Ex
	Sodium hydroxide (caustic soda)	NaOH (1310-73-2)	50%	Ex	Ex	Ex
			40%	Ex	Ex	Ex
20%			Ex	Ex	Ex	
			10%	Ex	Ex	Ex

Excellent	Ex	Suitable for all reasonable applications including immersion.
Good	G	Suitable for applications involving immersion for short periods, splashing and contact with fumes.
Moderate	M	Suitable for use in environments contaminated by the chemical or in situations where accidental splashing can be removed either by cleaning or in the case of volatile solvents, by evaporation.
Poor	P	Not suitable for any applications involving contact with the chemical itself or fumes evolved from it.
*		Product must be post cured to deliver quoted chemical resistance. As for general guidance, the coating should be subjected to the following conditions as a minimum; 1hr at 100 °C/2hrs at 90 °C/4hrs at 80 °C/8hrs at 70 °C/16hrs at 60 °C. For specific recommendations, please contact Belzona.
Ex		Bold text highlights real life data obtained via chemical resistance testing
Ex		Normal font indicates that the resistance has been predicted based upon partial test data and/or similar reagents
Note:		Chemical resistance ratings are assigned based on the ability of a Belzona product to resist chemical attack and/or protect the underlying substrate. Belzona cannot guarantee the purity of the chemical, appearance or colour stability following contact.

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Amines and Amides	Diethanolamine (DEA) (2,2'-iminodiethanol)	HN(CH ₂ CH ₂ OH) ₂ (111-42-2)	-	Ex	Ex	Ex
	Diethylene glycolamine (DGA) (2-(2-aminoethoxy) ethanol)	H ₂ NCH ₂ CH ₂ OCH ₂ CH ₂ OH (929-06-6)	-	M	P	P
	N-Methyl diethanolamine (MDEA)	CH ₃ N(CH ₂ CH ₂ OH) ₂ 105-59-9	-	Ex	Ex	Ex
	Monoethanolamine (MEA) (2-aminoethanol)	H ₂ NCH ₂ CH ₂ OH (141-43-5)	-	Ex*	M	P
	Sulfinol solution (50% diisopropanolamine, 25% tetramethylene sulfone, 25% water)	N/A	-	Ex*	M	P
Gases	Carbon dioxide (dry)	CO ₂ (124-38-9)	-	Ex	Ex	Ex
	Carbon monoxide	CO (630-08-0)	-	Ex	Ex	Ex
	Hydrogen	H ₂ (1333-74-0)	-	Ex	Ex	Ex
	Hydrogen Sulphide	H ₂ S (7783-06-4)	-	Ex	Ex	Ex
	Nitrogen	N ₂ (7727-37-9)	-	Ex	Ex	Ex
Hydrocarbons	Aviation fuel (AVCAT, AVGAS, AVTAG, AVTUR)	N/A	-	Ex	Ex	Ex
	Crude oil	N/A	-	Ex	Ex	Ex
	Gasoline (petrol)	N/A (8032-32-4)	-	Ex	Ex	Ex
	Heptane	CH ₃ CH ₂ CH ₂ CH ₂ CH ₂ CH ₂ CH ₃ (142-82-5)	-	Ex	Ex	Ex
	Hexane	CH ₃ CH ₂ CH ₂ CH ₂ CH ₂ CH ₃ (110-54-3)	-	Ex	Ex	-
	Kerosene	N/A (8008-20-6)	-	Ex	Ex	Ex
	Mineral Spirits / White Spirits (Turpentine, Stoddards Solvent)	N/A (8052-41-3)	-	Ex	Ex	Ex
	Paraffin wax	N/A (8002-74-2)	-	Ex	Ex	Ex
	Petrolatum (Petroleum jelly)	N/A (8009-03-8)	-	Ex	Ex	Ex
	Toluene (methylbenzene, phenylmethane, toluol)	C ₆ H ₅ CH ₃ (108-88-3)	-	Ex	G	G
	Xylene (dimethyl benzene, xylol)	C ₆ H ₄ (CH ₃) ₂ (95-47-6/108-38-3/106-42-3/1330-20-7)	-	Ex	G	G
Misc	Water	H ₂ O	-	Ex	Ex	Ex
	Brine/Seawater	N/A	-	Ex	Ex	Ex

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