

# 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%	<b>G*</b>	M	P
			5%	<b>Ex*</b>	G	M
			1%	Ex	G	G
	Nitric acid	HNO <sub>3</sub> (7697-37-2)	10%	M	P	P
			5%	<b>G*</b>	M	M
	Phosphoric acid (orthophosphoric acid)	H <sub>3</sub> PO <sub>4</sub> (7664-38-2)	10%	M	M	P
5%			M	M	P	
Sulfuric acid	H <sub>2</sub> SO <sub>4</sub> (7664-93-9)	10%	M	P	P	
		5%	<b>G</b>	M	P	
		1%	Ex	G	M	
Organic Acids	Acetic acid (ethanoic acid)	CH <sub>3</sub> COOH (64-19-7)	5%	<b>G*</b>	P	P
			2%	<b>Ex*</b>	M	P
			1%	Ex*	Ex	Ex
			0.1%	Ex*	Ex	Ex
	Phenol (hydroxybenzene)	C <sub>6</sub> H <sub>5</sub> OH 108-95-2	-	P	P	P
Alcohols, Aldehydes and Ketones	Acetone	(CH <sub>3</sub> ) <sub>2</sub> CO (67-64-1)	-	M	-	-
	Amyl alcohol (1-Pentanol)	C <sub>5</sub> H <sub>11</sub> OH (71-41-0)	-	G	M	M
	n-Butanol (butyl alcohol)	C <sub>4</sub> H <sub>9</sub> OH (71-36-3)	-	G	M	M
	Ethanol (ethyl alcohol)	CH <sub>3</sub> CH <sub>2</sub> OH (64-17-5)	-	G	M	-
	Ethylene glycol (ethan-1,2-diol, monoethylene glycol, MEG)	(CH <sub>2</sub> OH) <sub>2</sub> (107-21-1)	-	Ex	Ex	Ex
	Glycerol (glycerine, propane-1,2,3-triol)	HOCH <sub>2</sub> CH(OH)CH <sub>2</sub> OH (56-81-5)	-	Ex	Ex	Ex
	Isopropyl alcohol (IPA) (isopropanol, propan-2-ol)	CH <sub>3</sub> CH(OH)CH <sub>3</sub> (67-63-0)	-	G	M	M
	Methanol (methyl alcohol)	CH <sub>3</sub> OH (67-56-1)	-	<b>G</b>	M	-
	Methyl ethyl ketone (MEK, butanone)	CH <sub>3</sub> C(O)CH <sub>2</sub> CH <sub>3</sub> (78-93-3)	-	M	P	-
	Propan-1-ol (Propyl alcohol)	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> OH (71-23-8)	-	G	M	M
Alkalis/Bases	Ammonia	NH <sub>3</sub> (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
Ex		<b>Bold</b> 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

# 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
Amines and Amides	Diethanolamine (DEA) (2,2'-iminodiethanol)	HN(CH <sub>2</sub> CH <sub>2</sub> OH) <sub>2</sub> (111-42-2)	-	Ex	Ex	Ex
	Diethylene glycolamine (DGA) (2-(2-aminoethoxy) ethanol)	H <sub>2</sub> NCH <sub>2</sub> CH <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub> OH (929-06-6)	-	M	P	P
	N-Methyl diethanolamine (MDEA)	CH <sub>3</sub> N(CH <sub>2</sub> CH <sub>2</sub> OH) <sub>2</sub> (105-59-9)	-	Ex	Ex	Ex
	Monoethanolamine (MEA) (2-aminoethanol)	H <sub>2</sub> NCH <sub>2</sub> CH <sub>2</sub> 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 <sub>2</sub> (124-38-9)	-	Ex	Ex	Ex
	Carbon monoxide	CO (630-08-0)	-	Ex	Ex	Ex
	Hydrogen	H <sub>2</sub> (1333-74-0)	-	Ex	Ex	Ex
	Hydrogen Sulphide	H <sub>2</sub> S (7783-06-4)	-	Ex	Ex	Ex
	Nitrogen	N <sub>2</sub> (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 <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> (142-82-7)	-	Ex	Ex	Ex
	Hexane	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> (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 <sub>6</sub> H <sub>5</sub> CH <sub>3</sub> (108-88-3)	-	Ex	G	G
	Xylene (dimethyl benzene, xylol)	C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub> (95-47-6/108-38-3/106-42-3/1330-20-7)	-	Ex	G	G
Misc	Water	H <sub>2</sub> O	-	Ex	Ex	Ex
	Brine/Seawater	N/A	-	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
Ex		<b>Bold</b> 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

The technical data contained herein is based on the results of long term tests carried out in our laboratories and to the best of our knowledge is true and accurate on the date of publication. It is however, subject to change without prior notice and the user should contact Belzona to verify the technical data is correct before specifying or ordering. No guarantee of accuracy is given or implied. We assume no responsibility for rates of coverage, performance or injury resulting from use. Liability, if any, is limited to the replacement of products. No other warranty or guarantee of any kind is made by Belzona, express or implied, whether statutory, by operation of law or otherwise, including merchantability or fitness for a particular purpose. Nothing in the foregoing statement shall exclude or limit any liability of Belzona to the extent such liability cannot by law be excluded or limited.