CHEMICAL RESISTANCE OF BELZONA® 7311

FN10213

	Chemical name (Synonym)	Chemical formula (CAS number)	Concentration	Chemical Resistance Rating at 20 °C (68 °F)
Inorganic Acids	Hydrochloric acid	HCl (7647-01-0)	37%	P
			20%	**G**
			10%	**Ex**
			5%	Ex
	Phosphoric acid (orthophosphoric acid)	H_3PO_4 (7664-38-2)	5%	M
	Nitric acid	HNO_3 (7697-37-2)	5%	M
	Sulphuric acid	H_2SO_4 (7664-93-9)	30%	P
			20%	M
			10%	**Ex**
			5%	**Ex**
Organic Acids	Acetic acid (ethanoic acid)	CH_3COOH (64-19-7)	5%	P
			1%	**G**
	Lactic acid (2-hydroxypropanoic acid)	$CH_3CH(OH)(COOH)$ (50-21-5/79-33-4/10326-41-7)	5%	**P**
	Phenol (hydroxybenzene)	C_6H_5OH (108-95-2)	80%	P
Alcohols, Aldehydes and Ketones	Acetone (propanone)	$(CH_3)_2CO$ (67-64-1)	-	P
	Amyl alcohol	$C_5H_{11}OH$ (71-41-0)	-	Ex
	n-Butanol (butyl alcohol)	C_4H_9OH (71-36-3)	-	Ex
	Ethanol (ethyl alcohol)	CH_3CH_2OH (64-17-5)	-	G
	Ethylene glycol (ethan-1,2-diol, monoethylene glycol, MEG)	$(CH_2OH)_2$ (107-21-1)	-	Ex
	Glycerol (glycerine, propane-1,2,3-triol)	$HOCH_2CH(OH)CH_2OH$ (56-81-5)	-	Ex
	n-Hexanol (hexyl alcohol)	$C_6H_{13}OH$ (111-27-3)	-	Ex

Excellent	**Ex**	no significant deterioration / barrier properties retained for greater than 52 weeks *suitable for all applications including long term immersion*
Good	**G**	no significant deterioration / barrier properties retained for 12 - 52 weeks *suitable for short-term immersion and general chemical contact*
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Alcohols, Aldehydes and Ketones continued	Higher alcohols	$C_nH_{(2n+1)}OH$ where n > 2	-	Ex
	Isopropyl alcohol (IPA) (isopropanol, propan-2-ol)	$CH_3CH(OH)CH_3$ (67-63-0)	-	Ex
	Isobutyl alcohol (IBA) (isobutanol, 2-methylpropan-1-ol)	$(CH_3)_2CHCH_2OH$ (78-83-1)	-	Ex
	Methanol (methyl alcohol)	CH_3OH (67-56-1)	-	**P**
	Methyl ethyl ketone (MEK) (2-butanone, methyl acetone)	$CH_3C(O)CH_2CH_3$ (78-93-3)	-	**P**
	Methyl isobutyl ketone (MIBK) (hexone, 4-Methylpentan-2-one)	$(CH_3)_2CHCH_2C(O)CH_3$ (108-10-1)	-	M
	Propan-1-ol (Propyl alcohol)	$CH_3CH_2CH_2OH$ (71-23-8)	-	Ex
	Propylene glycol (1,2-Propanediol)	$CH_3CH(OH)CH_2OH$ (57-55-6)	-	Ex
Alkalis / Bases	Ammonia solution (ammonium hydroxide)	$NH_{3\ (aq)}$ (1336-21-6)	20%	**Ex**
	Potassium hydroxide (caustic potash)	KOH 1310-58-3)	40% 20% 10%	Ex Ex Ex
	Sodium hydroxide (caustic soda)	NaOH (1310-73-2)	50% 20% 10%	**Ex** Ex Ex
Amines & Amides	Diethanolamine (DEA) (2,2'-iminodiethanol)	$HN(CH_2CH_2OH)_2$ (111-42-2)	-	**Ex**
	Diethylene glycolamine (DGA) (2-(2-aminoethoxy) ethanol)	$H_2NCH_2CH_2OCH_2CH_2OH$ (929-06-6)	-	**P**
	N-Methyl diethanolamine (MDEA)	$CH_3N(CH_2CH_2OH)_2$ (105-59-9)	-	Ex
	Monoethanolamine (MEA) (2-aminoethanol)	$H_2NCH_2CH_2OH$ (141-43-5)	-	P
	Triethanolamine (TEA) (2,2',2"-nitrilotriethanol)	$N(CH_2CH_2OH)_3$ (102-71-6)	-	Ex

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Gases	Butane	$CH_3CH_2CH_2CH_3$ (106-97-8)	-	Ex
	Carbon dioxide	CO_2 (124-38-9)	-	Ex
	Carbon monoxide	CO (630-08-0)	-	Ex
	Chlorine (dry)	Cl_2 (7782-50-5)	-	Ex
	Chlorine (wet)	Cl_2 (7782-50-5)	-	Ex
	Ethane	C_2H_6 (74-84-0)	-	Ex
	Hydrogen	H_2 (1333-74-0)	-	Ex
	Hydrogen sulphide	H_2S (7783-06-4)	-	Ex
	Methane (natural gas)	CH_4 (74-82-8)	-	Ex
	Nitrogen	N_2 (7727-37-9)	-	Ex
	Nitrous oxide (dinitrogen monoxide)	N_2O (10024-97-2)	-	Ex
	Ozone (dry)	O_3 (10028-15-6)	-	Ex
	Ozone (wet)	O_3 (10028-15-6)	-	M
	Sulphur dioxide	SO_2 (7446-09-5)	-	Ex
	Sulphur trioxide (sulphuric anhydride)	SO_3 (7446-11-9)	-	Ex
Hydrocarbons	Aviation fuel (AVCAT, AVGAS, AVTAG, AVTUR)	N/A	-	**Ex**
	Crude Oil	N/A	-	Ex
	Cyclohexane	C_6H_{12} (110-82-7)	-	G

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Hydrocarbons continued	Diesel	N/A	-	Ex
	Ethyl benzene (ethyl benzol, EB)	$C_6H_5CH_2CH_3$ (100-41-4)	-	G
	Gasoline (petrol)	N/A (8032-32-4)	-	**Ex**
	Heptane	$CH_3CH_2CH_2CH_2CH_2CH_2CH_3$ (142-82-5)	-	Ex
	Hexane	$CH_3CH_2CH_2CH_2CH_2CH_3$ (110-54-3)	-	Ex
	Iso-octane (2,2,4-trimethylpentane)	$(CH_3)_3CCH_2CH(CH_3)_2$ (540-84-1)	-	Ex
	Kerosene	N/A (8008-20-6)	-	**Ex**
	Mesitylene (1,3,5-Trimethylbenzene)	$C_6H_3(CH_3)_3$ (108-67-8)	-	G
	Mineral spirits / White spirits (Stoddard solvent)	N/A (8052-41-3)	-	Ex
	Naphthalene (naphthalin, white tar)	$C_{10}H_8$ (91-20-3)	-	Ex
	Paraffin	N/A (8002-74-2)	-	Ex
	Pentane	$CH_3CH_2CH_2CH_2CH_3$ (109-66-0)	-	Ex
	Toluene (methylbenzene, phenylmethane, toluol)	$C_6H_5CH_3$ (108-88-3)	-	G
	Xylene (dimethyl benzene, xylol)	$C_6H_4(CH_3)_2$ (95-47-6/108-38-3/106-42-3/1330-20-7)	-	**G**
Salts	Aluminium chloride	$AlCl_3$ (7446-70-0)	10%	Ex
	Aluminium sulphate	$Al_2(SO_4)_3$ (10043-01-3)	10%	Ex
	Ammonium chloride	NH_4Cl (12125-02-9)	10%	Ex
	Ammonium sulphate	$(NH_4)_2SO_4$ (7783-20-2)	10%	Ex

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Salts continued	Copper sulphate	$CuSO_4$ (7758-98-7)	10%	Ex
	Ferric chloride	$FeCl_3$ (7705-08-0)	10%	Ex
	Ferric sulphate	$Fe_2(SO_4)_3$ (10028-22-5)	10%	Ex
	Ferrous chloride	$FeCl_2$ (7758-94-3)	10%	Ex
	Ferrous sulphate	$FeSO_4$ (7720-78-7)	10%	**Ex**
	Magnesium chloride	$MgCl_2$ (7786-30-3)	10%	**Ex**
	Magnesium sulphate (Epsom salt)	$MgSO_4$ (7487-88-9)	10%	Ex
	Potassium chloride	KCl (7447-40-7)	10%	Ex
	Potassium sulphate	K_2SO_4 (7778-80-5)	10%	**Ex**
	Sodium hypochlorite (bleach)	NaClO (7681-52-9)	12%	**G**
	Sodium nitrate	$NaNO_3$ (7631-99-4)	10%	Ex
	Sodium sulphate	Na_2SO_4 (7757-82-6)	10%	Ex
	Sodium sulphide	Na_2S (1313-82-2)	10%	Ex
Misc	Aqueous Urea Solution (Adblue)	$CO(NH_2)_2$ (57-13-6)	32.5%	**Ex**

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