BELZONA® PRODUCT DATA M507

CHEMICAL RESISTANCE OF BELZONA® 1311

(Ceramic R-Metal)

INORGANIC ACIDS	RATING		RATING
Carbonic acid	Ex	Nitrous acid (0-20%)	Ex
Fluorosilicic acid	F	Oleum	P
Hydrobromic acid (0-10%)	Ex	Phosphoric acid (0-5%)	Ex
Hydrochloric acid (0-10%)	Ex	Phosphoric acid (5-10%)	G
Hydrochloric acid (10-20%)	G	Phosphoric acid (10-20%)	G
Hydrochloric acid (20-35%)	F	Sulfuric acid (0-10%)	Ex
Nitric acid (0-10%)	Ex	Sulfuric acid (10-20%)	G
Nitric acid (10-20%)	G	Sulfuric acid (20-50%)	F
Nitric acid (20-50%)	P	Sulfuric acid (98%)	P

ORGANIC ACIDS	RATING		RATING
Acetic acid (0-10%)	G	Cresylic acid	P
Acetic acid (10-20%)	F	Formic acid (0-10%)	F
Acetic acid (20-50%)	P	Formic acid (10-20%)	F
Chloroacetic acid	F	Lactic acid (0-10%)	G
Chlorosulfonic acid	F	Phenol (80%)	P
Citric acid	G		

ALCOHOLS	RATING		RATING
Butanol	Ex	2-Methoxyethanol	Ex
Ethanol	G	Propanol	Ex
Ethylene glycol	Ex	Propylene glycol	Ex
Glycerol	Ex	Secondary alcohols	Ex
Higher alcohols	Ex	Tertiary alcohols	Ex
Methanol	F		

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.

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BELZONA®
Repair • Protect • Improve

ALKALIS	RATING		RATING
Ammonia (0-10%)	Ex	Potassium hydroxide (0-10%)	Ex
Ammonia (10-20%)	Ex	Potassium hydroxide (10-20%)	Ex
Ammonia (20-40%)	F	Potassium hydroxide (20-40%)	G
Barium hydroxide	Ex	Sodium hydroxide (0-10%)	Ex
Calcium hydroxide	Ex	Sodium hydroxide (10-20%)	Ex
Lime Water	Ex	Sodium hydroxide (20-40%)	G
Magnesium hydroxide	Ex		

AMINES & AMIDES	RATING		RATING
Aniline	F	Methylamine (25% in water)	Ex
Diethanolamine	Ex	Pyridine	P
Diethylamine	P	Triethanolamine	Ex
Dimethylformamide	P		

BEVERAGES & FOODSTUFFS	RATING		RATING
Beer	Ex	Milk	G
Cider	Ex	Sugar solution	Ex
Citrus juices	Ex	Vinegar	G
Fermentation liquor	Ex	Whisky and Wine	Ex
Glucose	Ex		

ESTERS & ETHERS	RATING		RATING
Amyl acetate	Ex	Dioctyl phthalate	Ex
Butyl acetate	Ex	Dioctyl sebacate	Ex
Dibutyl adipate	Ex	Diphenyl isodecyl phosphate	Ex
Dibutyl phthalate	Ex	Ethyl acetate	Ex
Dibutyl sebacate	Ex	Isopropyl ether	Ex
Diethyl ether	Ex	Methyl acetate	Ex
Dioctyl adipate	Ex		

GASES	RATING		RATING
Carbon dioxide (dry)	Ex	Nitrogen	Ex
Carbon monoxide	Ex	Nitrous oxide	Ex
Chlorine (dry)	Ex	Ozone (dry)	Ex
Chlorine (wet)	Ex	Ozone (aqueous solution)	F
Hydrogen	Ex	Sulfur dioxide	Ex
Natural Gas	Ex	Sulfur trioxide	Ex

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HALOCARBONS	RATING		RATING
Carbon tetrachloride	G	Methylene chloride	P
Chlorobenzene	G	Perchloroethylene	G
Chloroform	G	1, 1, 1, - Trichloroethane	G
Dry cleaning fluids	G		

HYDROCARBONS	RATING		RATING
Aviation fuel (Avtag)	Ex	Mineral spirits	Ex
Benzene	Ex	Paraffin	Ex
Cyclohexane	Ex	Pentane	Ex
Gasoline	Ex	Petrol	Ex
Heptane	Ex	Styrene	Ex
Hexane	Ex	Toluene	Ex
Iso-octane	Ex	White Spirit	Ex
Kerosene	Ex	Xylene	Ex

KETONES	RATING
Acetone	F
Methyl ethyl ketone	F

MISCELLANEOUS	RATING		RATING
Bleach	G	Mercury	Ex
Brake Fluid	Ex	Mine waters (acid)	Ex
Drilling mud	Ex	Oil/water mixtures	Ex
Emulsion paint	Ex	Water, distilled	Ex
Fertilizer solutions	Ex	Water, fresh	Ex
Grease	Ex	Water, sea	Ex
Ink (water based)	Ex		

OILS - MINERAL	RATING		RATING
Bunker oils (fuel oils)	Ex	Diesel oil	Ex
Crude oil	Ex	Lubricating oil	Ex
Cutting oils, water emulsions	Ex	Transformer oil	Ex

OILS - VEGETABLE/ ANIMAL	RATING		RATING
Castor oil	Ex	Corn oil	Ex
Coconut oil	Ex	Linseed oil	Ex
Cod liver oil	Ex	Olive oil	Ex

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SALTS	RATING		RATING
Aluminium chloride (dry)	Ex	Potassium bisulfite	Ex
Aluminium sulfate	Ex	Potassium bromide	Ex
Alums	Ex	Potassium carbonate	Ex
Ammonium bicarbonate	Ex	Potassium chlorate	Ex
Ammonium carbonate	Ex	Potassium chloride	Ex
Ammonium chloride	Ex	Potassium cyanide	Ex
Ammonium monophosphate	Ex	Potassium dichromate	Ex
Ammonium phosphate (dibasic)	Ex	Potassium diphosphate	Ex
Ammonium phosphate (tribasic)	Ex	Potassium ferricyanide	Ex
Ammonium nitrate	Ex	Potassium ferrocyanide	Ex
Ammonium sulfate	Ex	Potassium iodide	Ex
Antimony trichloride	Ex	Potassium nitrate	Ex
Barium carbonate	Ex	Potassium permanganate	Ex
Barium chloride	Ex	Potassium sulfate	Ex
Barium sulfate	Ex	Potassium sulfide	Ex
Brines	Ex	Potassium sulfite	Ex
Calcium bisulfite	Ex	Silver nitrate	Ex
Calcium carbonate	Ex	Sodium acetate	Ex
Calcium chloride	Ex	Sodium aluminate	Ex
Calcium hypochlorite	G	Sodium bicarbonate	Ex
Calcium sulfate	Ex	Sodium bisulfate	Ex
Chrome alum	Ex	Sodium bisulfite	Ex
Copper acetate	Ex	Sodium borate	Ex
Copper chloride	Ex	Sodium bromide	Ex
Copper nitrate	Ex	Sodium carbonate	Ex
Copper sulfate	Ex	Sodium chlorate	Ex
Epsom salt	Ex	Sodium chloride	Ex
Ferric chloride (dry)	Ex	Sodium chromate	Ex
Ferric nitrate	Ex	Sodium cyanide	Ex
Ferric sulfate	Ex	Sodium fluoride	Ex
Ferrous chloride	Ex	Sodium hypochlorite	G
Ferrous sulfate	Ex	Sodium metaphosphate	Ex
Lead acetate	Ex	Sodium metasilicate	Ex
Magnesium bisulfate	Ex	Sodium nitrate	Ex
Magnesium chloride	Ex	Sodium phosphate (dibasic)	Ex
Magnesium sulfate	Ex	Sodium phosphate (tribasic)	Ex
Mercuric chloride	Ex	Sodium silicate	Ex
Mercuric cyanide	Ex	Sodium sulfate	Ex
Nickel ammonium sulfate	Ex	Sodium sulfide	Ex
Nickel chloride	Ex	Stannous chloride	Ex
Nickel nitrate	Ex	Zinc chloride	Ex
Nickel sulfate	Ex	Zinc hydrosulfite	Ex
Potash alum	Ex	Zinc sulfate	Ex

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These tables are based upon immersion tests carried out under static conditions at 68°F (20°C).

They should only be considered as a guide to the performance which might be expected under practical conditions.

In these tables, the following nomenclature has been used:-

(Ex)	Excellent	-	Suitable for all reasonable applications including immersion
(G)	Good	-	Suitable for applications involving immersion for short periods, splashing and contact with fumes.
(F)	Fair	-	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.
(P)	Poor	-	Not suitable for any applications involving contact with the chemical itself or fumes evolved from it.

Printed in England 8/2010

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ISO 9001:2008
Q 09335
ISO 14001:2004
EMS 509612

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