
BELZONA® PRODUCT DATA M503

CHEMICAL RESISTANCE OF BELZONA® 1111 (Super Metal)

INORGANIC ACIDS

	<u>RATING</u>
Carbonic acid	Ex
Hydrobromic acid (0-10%)	Ex
Hydrochloric acid (0-10%)	Ex
Hydrochloric acid (10-20%)	G
Hydrochloric acid (20-35%)	F
Hydrofluorosilicic acid	F
Nitric acid (0-10%)	Ex
Nitric acid (10-20%)	G
Nitric acid (10-20%)	P

	<u>RATING</u>
Nitrous acid (0-20%)	Ex
Oleum	P
Phosphoric acid (0-5%)	Ex
Phosphoric acid (5-10%)	G
Phosphoric acid (10-20%)	G
Sulphuric acid (0-10%)	Ex
Sulphuric acid (10-20%)	G
Sulphuric acid (20-50%)	F
Sulphuric acid (98%)	P

ORGANIC ACIDS

	<u>RATING</u>
Acetic acid (0-10%)	G
Acetic acid (10-20%)	F
Acetic acid (20-50%)	P
Chloroacetic acid	F
Chlorosulphonic acid	F
Citric acid	G

	<u>RATING</u>
Cresylic acid	P
Formic acid (0-10%)	F
Formic acid (10-20%)	F
Lactic acid (0-10%)	G
Phenol (80%)	P

ALCOHOLS

	<u>RATING</u>
Methanol	F
Ethanol	G
Propanol	Ex
Butanol	Ex
Ethylene glycol	Ex
Glycerol	Ex

	<u>RATING</u>
Higher alcohols	Ex
2-Methoxyethanol	Ex
Propylene glycol	Ex
Secondary alcohols	Ex
Tertiary alcohols	Ex

M503 - 1 (Issue 2)

All descriptions are based on the results of long term tests carried out in our laboratories and are believed to be true and accurate. No condition or warranty is given covering the results from the use of our products in any particular case, whether the purpose is disclosed or not and we cannot accept liability if the desired results are not obtained.

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ALKALIS

Ammonia (0-10%)
Ammonia (10-20%)
Ammonia (20-40%)
Barium hydroxide
Calcium hydroxide
Lime Water
Magnesium hydroxide

RATING

Ex
Ex
F
Ex
Ex
Ex
Ex

Potassium hydroxide (0-10%)
Potassium hydroxide (10-20%)
Potassium hydroxide (20-40%)
Sodium hydroxide (0-10%)
Sodium hydroxide (10-20%)
Sodium hydroxide (20-40%)

RATING

Ex
Ex
G
Ex
Ex
G

AMINES & AMIDES

Aniline
Diethanolamine
Diethylamine
Dimethylformamide

RATING

F
Ex
P
P

Methylamine (25% in water)
Pyridine
Triethanolamine

RATING

Ex
P
Ex

**BEVERAGES &
FOODSTUFFS**

Beer
Cider
Citrus juices
Fermentation liquor
Glucose

RATING

Ex
Ex
Ex
Ex
Ex

Milk
Sugar solution
Vinegar
Whisky and Wine

RATING

G
Ex
G
F

ESTERS & ETHERS

Amyl acetate
Butyl acetate
Dibutyl adipate
Dibutyl phthalate
Dibutyl sebacate
Dioctyl adipate
Dioctyl phthalate

RATING

Ex
Ex
Ex
Ex
Ex
Ex
Ex

Dioctyl sebacate
Diethyl ether
Diphenyl isodecylphosphate
Ethyl acetate
Isopropyl ether
Methyl acetate

RATING

Ex
Ex
Ex
Ex
Ex
Ex

GASES

Carbon dioxide (dry)
Carbon monoxide
Chlorine (dry)
Chlorine (wet)
Hydrogen
Natural Gas

RATING

Ex
Ex
Ex
Ex
Ex
Ex

Nitrogen
Nitrous oxide
Ozone (dry)
Ozone (aqueous solution)
Sulphur dioxide
Sulphur trioxide

RATING

Ex
Ex
Ex
F
Ex
Ex

HALOCARBONS

Carbon tetrachloride
Chlorobenzene
Chloroform
Dry cleaning fluids

RATING

G
G
G
G

Methylene chloride
Perchloroethylene
1, 1, 1, - Trichloroethane

RATING

P
G
G

HYDROCARBONS

Aviation fuel (Avtag)
Benzene
Cyclohexane
Gasoline
Heptane
Hexane
Iso-octane
Mineral spirits

RATING

Ex
Ex
Ex
Ex
Ex
Ex
Ex
Ex

Paraffin
Pentane
Kerosene
Petrol
Toluene
White Spirit
Styrene
Xylene

RATING

Ex
Ex
Ex
Ex
Ex
Ex
Ex
Ex

KETONES

Acetone
Methyl ethyl ketone

RATING

F
F

RATING**MISCELLANEOUS**

Bleach
Brake Fluid
Drilling mud
Emulsion paint
Fertilizer solutions
Grease
Ink (water based)

RATING

G
Ex
Ex
Ex
Ex
Ex
Ex

Mercury
Mine waters (acid)
Oil/water mixtures
Water, distilled
Water, fresh
Water, sea

RATING

Ex
Ex
Ex
Ex
Ex
Ex

OILS - MINERAL

Bunker oils (fuel oils)
Crude oil
Cutting oils, water emulsions

RATING

Ex
Ex
Ex

Diesel oil
Lubricating oil
Transformer oil

RATING

Ex
Ex
Ex

OILS - VEGETABLE/**ANIMAL**

Castor oil
Coconut oil
Cod liver oil

RATING

Ex
Ex
Ex

Corn oil
Linseed oil
Olive oil

RATING

Ex
Ex
Ex

<u>SALTS</u>	<u>RATING</u>		<u>RATING</u>
Aluminium chloride (dry)	Ex	Potash alum	Ex
Aluminium sulphate	Ex	Potassium bisulphite	Ex
Alums	Ex	Potassium bromide	Ex
Ammonium bicarbonate	Ex	Potassium carbonate	Ex
Ammonium carbonate	Ex	Potassium chlorate	Ex
Ammonium chloride	Ex	Potassium chloride	Ex
Ammonium monophosphate	Ex	Potassium cyanide	Ex
Ammonium phosphate	Ex	Potassium dichromate	Ex
(dibasic)		Potassium diphosphate	Ex
Ammonium phosphate	Ex	Potassium ferricyanide	Ex
(tribasic)		Potassium ferrocyanide	Ex
Ammonium nitrate	Ex	Potassium iodine	Ex
Ammonium sulphate	Ex	Potassium nitrate	Ex
Antimony trichloride	Ex	Potassium permanganate	Ex
Barium carbonate	Ex	Potassium sulphate	Ex
Barium chloride	Ex	Potassium sulphide	Ex
Barium sulphate	Ex	Potassium sulphite	Ex
Brines	Ex	Silver nitrate	Ex
Calcium bisulphite	Ex	Sodium acetate	Ex
Calcium carbonate	Ex	Sodium aluminate	Ex
Calcium chloride	Ex	Sodium bicarbonate	Ex
Calcium hypochlorite	Ex	Sodium bisulphate	Ex
Calcium sulphate	Ex	Sodium bisulphite	Ex
Chrome alum	Ex	Sodium borate	Ex
Copper acetate	Ex	Sodium bromide	Ex
Copper chloride	Ex	Sodium carbonate	Ex
Copper nitrate	Ex	Sodium carbonate	Ex
Copper sulphate	Ex	Sodium chloride	Ex
Epsom salt	Ex	Sodium chromate	Ex
Ferric chloride (dry)	Ex	Sodium cyanide	Ex
Ferric nitrate	Ex	Sodium fluoride	Ex
Ferric sulphate	Ex	Sodium hypochlorite	G
Ferrous chloride	Ex	Sodium metaphosphate	Ex
Ferrous sulphate	Ex	Sodium metasilicate	Ex
Lead acetate	Ex	Sodium nitrate	Ex
Magnesium bisulphate	Ex	Sodium phosphate (dibasic)	Ex
Magnesium chloride	Ex	Sodium phosphate (tribasic)	Ex
Magnesium sulphate	Ex	Sodium silicate	Ex
Mercuric chloride	Ex	Sodium sulphate	Ex
Mercuric cyanide	Ex	Sodium sulphide	Ex
Nickel ammonium sulphate	Ex	Stannous chloride	Ex
Nickel chloride	Ex	Zinc chloride	Ex
Nickel nitrate	Ex	Zinc hydrosulphite	Ex
Nickel sulphate	Ex	Zinc sulphate	Ex

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. |

BELZONA® PRODUCT DATA M503

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