

CHEMICAL RESISTANCE OF BELZONA® 5231

FN 10096



| | Chemical name (Synonym) | Chemical formula (CAS number) | Concentration | 20 °C 68 °F | Other |
|-------------------|---|---|-------------------|----------------|-------------|
| Inorganic Acids | Hydrochloric acid | HCl (7647-01-0) | 2% 1% | P M | - - |
| | Nitric acid | HNO ₃ (7697-37-2) | 5% 1% | P Ex | - - |
| | Phosphoric acid (orthophosphoric acid) | H ₃ PO ₄ (7664-38-2) | 5% 1% | P Ex | - - |
| | Sulfuric acid | H ₂ SO ₄ (7664-93-9) | 5% 2% 1% | P G Ex | - - - |
| Organic Acids | Acetic acid (ethanoic acid) | CH ₃ COOH (64-19-7) | 2% | M | - |
| | Lactic acid (2-hydroxypropanoic acid) | CH ₃ CH(OH)(COOH) (50-21-5/79-33-4/10326-41-7) | 5% | P | - |
| Alcohols | n-Butanol (butyl alcohol) | C ₄ H ₉ OH (71-36-3) | - | Ex | - |
| | Ethanol (ethyl alcohol) | CH ₃ CH ₂ OH (64-17-5) | - | Ex | - |
| | Ethylene glycol (ethan-1,2-diol, monoethylene glycol, MEG) | (CH ₂ OH) ₂ (107-21-1) | - | Ex | - |
| | Glycerol (glycerine, propane-1,2,3-triol) | HOCH ₂ CH(OH)CH ₂ OH (56-81-5) | - | Ex | - |
| | Higher alcohols | C _n H _(2n+1) OH where n > 2 | - | Ex | - |
| | Methanol (methyl alcohol) | CH ₃ OH (67-56-1) | - | G | - |
| | 2-Methoxyethanol | C ₃ H ₈ O ₂ (109-86-4) | - | Ex | - |
| | Propan-1-ol (Propyl alcohol) | CH ₃ CH ₂ CH ₂ OH (71-23-8) | - | Ex | - |
| | Propylene glycol (1,2-Propanediol) | CH ₃ CH(OH)CH ₂ OH (57-55-6) | - | Ex | - |
| | Secondary alcohols | R ₁ R ₂ CHOH | - | Ex | - |
| Tertiary alcohols | R ₁ R ₂ R ₃ COH | - | Ex | - | |
| Alkalis | Ammonia | NH ₃ (7664-41-7) | 10% | Ex | - |
| | Barium hydroxide | Ba(OH) ₂ (17194-00-2) | - | Ex | - |
| | Calcium hydroxide (lime water) | Ca(OH) ₂ (1305-62-0) | - | Ex | - |
| | Magnesium hydroxide (milk of magnesia) | Mg(OH) ₂ (1309-42-8) | - | Ex | - |
| | Potassium hydroxide (caustic potash) | KOH (1310-58-3) | 40% 20% 10% | Ex Ex Ex | - - - |
| | Sodium hydroxide (caustic soda) | NaOH (1310-73-2) | 40% 20% 10% | Ex Ex Ex | - - - |

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| Beverages & Foodstuffs | Beer | | - | Ex | - |
| | Cider | | - | Ex | - |
| | Fermentation liquor | | - | Ex | - |
| | Glucose | | - | Ex | - |
| | Milk | | - | M | - |
| | Sugar liquids | | - | Ex | - |
| | Vinegar | | - | M | - |
| Whisky and Wine | | - | Ex | - | |
| Esters & Ethers | Amyl acetate | CH ₃ COO(CH ₂) ₄ CH ₃ (628-63-7) | - | Ex | - |
| | Butyl acetate | C ₆ H ₁₂ O ₂ (123-86-4) | - | Ex | - |
| | Dibutyl adipate | [CH ₂ CH ₂ CO ₂ (CH ₂) ₃ CH ₃] ₂ (105-99-7) | - | Ex | - |
| | Dibutyl phthalate | C ₁₆ H ₂₂ O ₄ (84-74-2) | - | Ex | - |
| | Dibutyl sebacate | C ₁₈ H ₃₄ O ₄ (109-43-3) | - | Ex | - |
| | Diethyl ether | (C ₂ H ₅) ₂ O (60-29-7) | - | Ex | - |
| | Diocetyl adipate | C ₂₂ H ₄₂ O ₄ (123-79-5) | - | Ex | - |
| | Diocetyl phthalate | C ₆ H ₄ (C ₈ H ₁₇ COO) ₂ (117-81-7) | - | Ex | - |
| | Diocetyl sebacate | (CH ₂) ₈ (COOC ₈ H ₁₇) ₂ | - | Ex | - |
| | Diphenyl isodecyl phosphate | C ₂₂ H ₃₁ O ₄ P (29761-21-5) | - | Ex | - |
| | Ethyl acetate | CH ₃ COOCH ₂ CH ₃ (141-78-6) | - | Ex | - |
| | Isopropyl ether | C ₆ H ₁₄ O (108-20-3) | - | Ex | - |
| | Methyl acetate | CH ₃ COOCH ₃ (79-20-9) | - | Ex | - |
| Halocarbons | Carbon tetrachloride | CCl ₄ (56-23-5) | - | G | - |
| | Chlorobenzene | C ₆ H ₅ Cl (108-90-7) | - | G | - |
| | Chloroform | CHCl ₃ (67-66-3) | - | G | - |
| | Dry cleaning fluids | | - | G | - |
| | Methylene chloride (dichloromethane) | CH ₂ Cl ₂ (75-09-2) | - | P | - |
| | Perchloroethylene (tetrachloroethylene) | Cl ₂ C=CCl ₂ (127-18-4) | - | G | - |
| | 1,1,1, - Trichloroethane (methyl chloroform) | CH ₃ CCl ₃ (71-55-6) | - | G | - |

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| Hydrocarbons | Aviation fuel (AVCAT, AVGAS, AVTAG, AVTUR) | N/A | - | Ex | - |
| | Benzene (benzol) | C ₆ H ₆ (71-43-2) | - | Ex | - |
| | Cyclohexane | C ₆ H ₁₂ (110-82-7) | - | Ex | - |
| | Gasoline – Ethanol free (Petrol) | | - | Ex | - |
| | Heptane | CH ₃ CH ₂ CH ₂ CH ₂ CH ₂ CH ₂ CH ₃ (142-82-7) | - | Ex | - |
| | Hexane | CH ₃ CH ₂ CH ₂ CH ₂ CH ₂ CH ₃ (110-54-3) | - | Ex | - |
| | Iso-octane (2,2,4-trimethylpentane) | (CH ₃) ₃ CCH ₂ CH(CH ₃) ₂ (540-84-1) | - | Ex | - |
| | Kerosene | N/A (8008-20-6) | - | Ex | - |
| | Paraffin | N/A (8002-74-2) | - | Ex | - |
| | Pentane | CH ₃ CH ₂ CH ₂ CH ₂ CH ₃ (109-66-0) | - | Ex | - |
| | Styrene | C ₆ H ₅ CH=CH ₂ (100-42-5) | - | Ex | - |
| | Toluene (methylbenzene, phenylmethane, toluol) | C ₆ H ₅ CH ₃ (108-88-3) | - | Ex | - |
| | White Spirit (Stoddard solvent, Mineral spirits) | N/A (8052-41-3) | - | Ex | - |
| | Xylene (dimethyl benzene, xylol) | C ₆ H ₄ (CH ₃) ₂ (95-47-6/108-38-3/106-42-3/1330-20-7) | - | Ex | - |
| Ketones | Acetone | (CH ₃) ₂ CO (67-64-1) | - | Ex | - |
| | Methyl ethyl ketone (MEK, butanone) | CH ₃ C(O)CH ₂ CH ₃ (78-93-3) | - | Ex | - |
| Miscellaneous | Brake fluid | | - | Ex | - |
| | Drilling mud | | - | Ex | - |
| | Emulsion paint | | - | Ex | - |
| | Fertilizer solutions | | - | Ex | - |
| | Grease | | - | Ex | - |
| | Ink (water based) | | - | Ex | - |
| | Mercury | Hg | - | Ex | - |
| | Oil/water mixtures | | - | Ex | - |
| | Water, distilled | | - | Ex | - |
| | Water, fresh | | - | Ex | - |
| Water, sea | | - | Ex | - | |

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| Oils - Mineral | Bunker oils (fuel oils) | | - | Ex | - |
| | Crude oil | | - | Ex | - |
| | Cutting oils, water emulsions | | - | Ex | - |
| | Diesel oil | | - | Ex | - |
| | Lubricating oil | | - | Ex | - |
| | Transformer oil | | - | Ex | - |
| Oils - Vegetable/ Animal | Castor oil | | - | Ex | - |
| | Coconut oil | | - | Ex | - |
| | Cod liver oil | | - | Ex | - |
| | Corn oil | | - | Ex | - |
| | Linseed oil | | - | Ex | - |
| | Olive oil | | - | Ex | - |
| Salts | Aluminium chloride (dry) | AlCl ₃ (7446-70-0) | - | Ex | - |
| | Aluminium sulphate | Al ₂ (SO ₄) ₃ (10043-01-3) | - | Ex | - |
| | Alums | | - | Ex | - |
| | Ammonium bicarbonate | (NH ₄)HCO ₃ (1066-33-7) | - | Ex | - |
| | Ammonium carbonate | (NH ₄) ₂ CO ₃ (506-87-6) | - | Ex | - |
| | Ammonium chloride | NH ₄ Cl (12125-02-9) | - | Ex | - |
| | Ammonium monophosphate | NH ₄ H ₂ PO ₄ (7722-76-1) | - | Ex | - |
| | Ammonium phosphate (dibasic) | (NH ₄) ₂ HPO ₄ (7783-28-0) | - | Ex | - |
| | Ammonium phosphate (tribasic) | (NH ₄) ₃ PO ₄ (10361-65-6) | - | Ex | - |
| | Ammonium nitrate | NH ₄ NO ₃ (6484-52-2) | - | Ex | - |
| | Ammonium sulfate | (NH ₄) ₂ SO ₄ (7783-20-2) | - | Ex | - |
| | Antimony trichloride | SbCl ₃ (10025-91-9) | - | Ex | - |
| | Barium carbonate | BaCO ₃ (513-77-9) | - | Ex | - |
| | Barium chloride | BaCl ₂ (10361-37-2) | - | Ex | - |
| | Barium sulfate | BaSO ₄ (7727-43-7) | - | Ex | - |
| | Brines | | - | Ex | - |
| | Calcium bisulfite | Ca(HSO ₃) ₂ (13780-03-5) | - | Ex | - |
| | Calcium carbonate | CaCO ₃ (471-34-1) | - | Ex | - |
| | Calcium chloride | CaCl ₂ (10043-52-4) | - | Ex | - |
| | Calcium hypochlorite | Ca(ClO) ₂ (7778-54-3) | - | Ex | - |
| Calcium sulphate | CaSO ₄ (7778-18-9) | - | Ex | - | |

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| Salts continued | Chromium potassium sulphate (Chrome alum) | KCr(SO ₄) ₂ (10141-00-1) | - | Ex | - |
| | Copper acetate | Cu(CH ₃ COO) ₂ (142-71-2) | - | Ex | - |
| | Copper chloride | CuCl ₂ (7447-39-4) | - | Ex | - |
| | Copper nitrate | Cu(NO ₃) ₂ (3251-23-8) | - | Ex | - |
| | Copper sulphate | CuSO ₄ (7758-98-7) | - | Ex | - |
| | Ferric chloride (dry) | FeCl ₃ (7705-08-0) | - | Ex | - |
| | Ferric nitrate | Fe(NO ₃) ₃ (10421-48-4) | - | Ex | - |
| | Ferric sulfate | Fe ₂ (SO ₄) ₃ (10028-22-5) | - | Ex | - |
| | Ferrous chloride | FeCl ₂ (7758-94-3) | - | Ex | - |
| | Ferrous sulfate | FeSO ₄ (7720-78-7) | - | Ex | - |
| | Lead acetate | Pb(CH ₃ COO) ₂ (301-04-2) | - | Ex | - |
| | Magnesium bisulfate | Mg(HSO ₄) ₂ (10028-26-9) | - | Ex | - |
| | Magnesium chloride | MgCl ₂ (7786-30-3) | - | Ex | - |
| | Magnesium sulphate (Epsom salt) | MgSO ₄ (7487-88-9) | - | Ex | - |
| | Mercuric chloride | HgCl ₂ (7487-94-7) | - | Ex | - |
| | Mercuric cyanide | Hg(CN) ₂ (592-04-1) | - | Ex | - |
| | Nickel ammonium sulfate | (NH ₄) ₂ Ni(SO ₄) ₂ (7785-20-8) | - | Ex | - |
| | Nickel chloride | NiCl ₂ (7718-54-9) | - | Ex | - |
| | Nickel nitrate | Ni(NO ₃) ₂ (13138-45-9) | - | Ex | - |
| | Nickel sulphate | NiSO ₄ (7786-81-4) | - | Ex | - |
| | Potassium aluminium sulphate (potash alum) | KAl(SO ₄) ₂ (10043-67-1) | - | Ex | - |
| | Potassium bisulfite | KHSO ₃ (7773-03-7) | - | Ex | - |
| | Potassium bromide | KBr (7758-02-3) | - | Ex | - |
| | Potassium carbonate | K ₂ CO ₃ (584-08-7) | - | Ex | - |
| Potassium chlorate | KClO ₃ (3811-04-9) | - | Ex | - | |
| Potassium chloride | KCl (7447-40-7) | - | Ex | - | |
| Potassium cyanide | KCN (151-50-8) | - | Ex | - | |

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| Salts continued | Potassium dichromate | K ₂ Cr ₂ O ₇ (7778-50-9) | - | Ex | - |
| | Potassium diphosphate | K ₂ HPO ₄ (7758-11-4) | - | Ex | - |
| | Potassium ferricyanide | K ₃ [Fe(CN) ₆] (13746-66-2) | - | Ex | - |
| | Potassium ferrocyanide | K ₄ [Fe(CN) ₆] (13943-58-3) | - | Ex | - |
| | Potassium iodide | KI (7681-11-0) | - | Ex | - |
| | Potassium nitrate | KNO ₃ (7757-79-1) | - | Ex | - |
| | Potassium permanganate | KMnO ₄ (7722-64-7) | - | Ex | - |
| | Potassium sulfate | K ₂ SO ₄ (7778-80-5) | - | Ex | - |
| | Potassium sulfide | K ₂ S (1059-82-5) | - | Ex | - |
| | Potassium sulphite | K ₂ SO ₃ (10117-38-1) | - | Ex | - |
| | Silver nitrate | AgNO ₃ (7761-88-8) | - | Ex | - |
| | Sodium acetate | CH ₃ COONa (127-09-3) | - | Ex | - |
| | Sodium aluminate | NaAlO ₂ (1302-42-7) | - | Ex | - |
| | Sodium bicarbonate | NaHCO ₃ (144-55-8) | - | Ex | - |
| | Sodium bisulfate | NaHSO ₄ (7681-38-1) | - | Ex | - |
| | Sodium bisulfite | NaHSO ₃ (7631-90-5) | - | Ex | - |
| | Sodium borate (borax) | Na ₂ B ₄ O ₇ (1303-96-4) | - | Ex | - |
| | Sodium bromide | NaBr (7647-15-6) | - | Ex | - |
| | Sodium carbonate (soda ash) | Na ₂ CO ₃ (497-19-8) | - | Ex | - |
| | Sodium chloride | NaCl (7647-14-5) | - | Ex | - |
| | Sodium chromate | Na ₂ CrO ₄ (7775-11-3) | - | Ex | - |
| | Sodium cyanide | NaCN (143-33-9) | - | Ex | - |
| | Sodium fluoride | NaF (7681-49-4) | - | Ex | - |
| | Sodium hypochlorite (bleach) | NaClO (7681-52-9) | 12% | M | - |
| Sodium metaphosphate | (NaPO ₃) ₆ (10124-56-8) | - | Ex | - | |
| Sodium metasilicate (sodium silicate) | Na ₂ SiO ₃ (6834-92-0) | - | Ex | - | |

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| Salts continued | Sodium nitrate | NaNO ₃ (7631-99-4) | - | Ex | - |
| | Sodium phosphate (dibasic) | Na ₂ HPO ₄ (7558-79-4) | - | Ex | - |
| | Sodium phosphate (tribasic) | Na ₃ PO ₄ (7601-54-9) | - | Ex | - |
| | Sodium sulfate | Na ₂ SO ₄ (7757-82-6) | - | Ex | - |
| | Sodium sulfide | Na ₂ S (1313-82-2) | - | Ex | - |
| | Stannous chloride (tin chloride) | SnCl ₂ (7772-99-8) | - | Ex | - |
| | Zinc chloride | ZnCl ₂ (7646-85-7) | - | Ex | - |
| | Zinc hydrosulfite | ZnS ₂ O ₄ (7779-86-4) | - | Ex | - |
| | Zinc sulfate | ZnSO ₄ (7733-02-0) | - | Ex | - |

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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.