



Resistance:		A = good			B = moderate			U = unsatisfactory		
Compatibility of media with	Homo- geneous Graphite	Alumi- nium	Alloy 20	Hastel- loy	Inco- nel 600	Monel 400	Nickel 200	316 S.S.	Steel	
Acetaldehyde	A	-	-	-	-	-	-	-	-	
Acetic acid										
- all temperature	A	-	-	-	-	-	-	-	-	
- room temperature	A	A	A	A	B	B	B	A	U	
Acetic acid amylester	A	-	-	-	-	-	-	-	-	
Acetic acid butylester	A	-	-	-	-	-	-	-	-	
Acetic anhydride										
- all temperatures	A	-	-	-	-	-	-	-	-	
- room temperature	A	A	A	A	B	B	A	A	B	
Acetone	A	A	A	A	A	A	A	A	A	
Acidified starch solutions	A	-	-	-	-	-	-	-	-	
Acrylic acid	A	-	-	-	-	-	-	-	-	
Acrylic acid esters	A	-	-	-	-	-	-	-	-	
Acrylonitril	A	-	-	-	-	-	-	-	-	
Air (< 400 °C)	A	-	-	-	-	-	-	-	-	
Alum	A	-	-	-	-	-	-	-	-	
Aluminium	A	-	-	-	-	-	-	-	-	
Aluminium fluoride	A	B	A	A	-	B	B	U	B	
Aluminium sulphate	A	B	A	A	B	B	B	A	U	
Aluminum chloride										
- all temperatures	A	-	-	-	-	-	-	-	-	
- room temperature	A	U	A	A	B	B	B	U	U	
Amino acids	A	-	-	-	-	-	-	-	-	
Ammonia (anhydrous)	A	A	A	A	A	B	B	A	B	
Ammonia (gas)	A	-	-	-	-	-	-	-	-	
Ammonium bifluoride	A	-	-	-	-	-	-	-	-	
Ammonium bisulphate	A	-	-	-	-	-	-	-	-	
Ammonium chloride	A	U	A	A	A	B	B	B	B	
Ammonium hydroxide	A	B	A	A	A	U	U	A	A	
Ammonium nitrate	A	A	A	A	B	U	U	A	A	

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Ammonium persulphate	A	-	-	-	-	-	-	-	-	-
Ammonium phosphate	A	A	A	A	B	B	B	A	U	
Ammonium sulphate	A	U	A	A	B	B	B	A	A	
Ammonium thiocyanate	A	-	-	-	-	-	-	-	-	
Amyl acetate	A	A	A	A	A	A	A	A	B	
Amyl alcohol	A	-	-	-	-	-	-	A	-	
Aniline	A	B	A	A	B	B	B	A	A	
Aniline hydrochloride	A	-	-	-	-	-	-	-	-	
Anodizing solutions	A	-	-	-	-	-	-	-	-	
Aqueous salt solutions										
- Borates	A	-	-	-	-	-	-	-	-	
- Bromides	A	-	-	-	-	-	-	-	-	
- Carbonates	A	-	-	-	-	-	-	-	-	
- Chlorides	A	-	-	-	-	-	-	-	-	
- Chromates (< 20 %)	A	-	-	-	-	-	-	-	-	
- Fluorides	A	-	-	-	-	-	-	-	-	
- Iodides	A	-	-	-	-	-	-	-	-	
- Nitrates	A	-	-	-	-	-	-	-	-	
- Nitrites	A	-	-	-	-	-	-	-	-	
- Phosphates	A	-	-	-	-	-	-	-	-	
- Sulphates	A	-	-	-	-	-	-	-	-	
Arsenic acid	A	-	-	-	-	-	-	-	-	
Arsenic trichloride	A	-	-	-	-	-	-	-	-	
Aureomycin	A	-	-	-	-	-	-	-	-	
Barium chloride	A	B	A	A	A	-	B	A	B	
Beer	A	A	A	A	A	A	A	A	A	
Benzaldehyde	A	-	-	-	-	-	-	-	-	
Benzene	A	A	A	A	B	A	B	A	A	
Benzyl sulfonic acid	A	-	-	-	-	-	-	-	-	
Bleach liquor	A	-	-	-	-	-	-	-	-	

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Borax	A	A	-	A	A	A	-	A	A
Boric acid	A	A	A	A	B	B	B	A	U
Bromic acid	A	-	-	-	-	-	-	-	-
Bromine	A	A	A	A	A	A	A	U	U
Butane	A	-	-	-	-	-	-	-	-
Butyl acetate	A	A	A	A	A	A	A	A	A
Butyl alcohol	A	A	A	A	A	A	A	A	A
Butyl cellosolve	A	-	-	-	-	-	-	-	-
Calcium carbonate	A	A	A	A	A	A	A	A	A
Calcium chlorate	A	-	-	-	-	-	-	-	-
Calcium chloride	A	B	A	A	A	B	B	A	A
Calcium hydroxide	A	B	A	A	B	B	B	B	A
Calcium hypochlorite	A	U	U	A	U	U	B	A	U
Carbolic acid	A	A	A	A	B	B	B	A	U
Carbon dioxide	A	-	-	-	-	-	-	-	-
Carbon disulphide	A	-	-	-	-	-	-	-	-
Carbon monoxide	A	-	-	-	-	-	-	-	-
Carbon tetrachloride	A	B	A	A	A	A	A	A	A
Carbonic acids	A	A	A	A	B	B	B	A	U
Caustic potash solution	A	-	-	-	-	-	-	-	-
Caustic soda	A	-	-	-	-	-	-	A	-
Cellsolve solvent	A	-	-	-	-	-	-	A	-
Chloral hydrate	A	-	-	-	-	-	-	-	-
Chlorinated ethyl alcohols	A	-	-	-	-	-	-	-	-
Chlorine (dry)	A	A	A	A	A	A	A	U	A
Chlorine (wet)	U	-	-	-	-	-	-	-	-
Chlorine oxide	U	-	-	-	-	-	-	-	-
Chloro acetic acid	A	-	-	-	-	-	-	-	-
Chloro benzene	A	-	-	-	-	-	-	-	-
Chloro ethyl benzene	A	-	-	-	-	-	-	-	-

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Chloroform	A	-	-	-	-	-	-	-	-
Chrome plating solutions	A	-	-	-	-	-	-	-	-
Chromic acid	B	B	A	A	B	U	U	B	-
Chromium trioxide (aqueous)	A	-	-	-	-	-	-	-	-
Chromosulphuric acid (< 20%)	A	-	-	-	-	-	-	-	-
Citric acid	A	A	A	A	B	B	B	A	U
Copper	A	-	-	-	-	-	-	-	-
Copper chloride	A	U	B	A	U	U	U	B	B
Copper sulphate	A	U	A	A	B	B	B	A	U
Creosote (coal tar)	A	B	A	B	B	B	B	A	A
Cresylic acid	A	-	-	-	-	-	-	-	-
Crude oil	A	A	A	A	B	B	B	A	A
Cyclohexane	A	-	-	-	-	-	-	A	-
Deoxidine	A	-	-	-	-	-	-	-	-
Dichloropropionic acid	A	-	-	-	-	-	-	-	-
Diethanolamine	A	-	-	-	-	-	-	-	-
Diethyl amine	A	-	-	-	-	-	-	-	-
Diethyl ether	A	-	-	-	-	-	-	A	-
Dimethyl sulfoxide	A	-	-	-	-	-	-	-	-
Dioxane	A	-	-	-	-	-	-	-	-
Diphenyl ether	A	-	-	-	-	-	-	-	-
Dowtherm (all types)	A	-	-	-	-	-	-	-	-
Electropolishing solutions	A	-	-	-	-	-	-	-	-
Engine oils	A	-	-	-	-	-	-	-	-
Epichlorohydrin	A	-	-	-	-	-	-	-	-
Ethers	A	A	A	A	B	B	B	A	A
Ethyl acetate	A	A	A	A	A	A	A	A	A
Ethyl alcohol	A	-	-	-	-	-	-	A	-
Ethyl amine	A	-	-	-	-	-	-	A	B

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Ethyl buty ester	A	-	-	-	-	-	-	A	-	
Ethyl chloride	A	B	A	A	B	B	B	A	A	
Ethyl mercaptane	A	-	-	-	-	-	-	-	-	
Ethyl methyl ketone	A	-	-	-	-	-	-	-	-	
Ethylene	A	-	-	-	-	-	-	-	-	
Ethylene chlorhydrin	A	-	-	-	-	-	-	-	-	
Ethylene dibromide	A	-	-	-	-	-	-	-	-	
Ethylene dichloride	A	-	-	-	-	-	-	-	-	
Ethylene glycol	A	-	-	-	-	-	-	-	-	
Ethylene oxide	A	-	-	-	-	-	-	-	-	
Fatty acids	A	-	-	-	-	-	-	-	-	
Ferrous sulphate	A	B	A	A	U	U	U	A	U	
Ferrous chloride	A	U	U	A	U	U	U	U	U	
Fluorine	B	-	-	-	-	-	-	-	-	
Folic acids	A	-	-	-	-	-	-	-	-	
Formaldehyde	A	-	-	-	-	-	-	-	-	
Formic acid	A	U	A	A	B	B	B	A	U	
Freon (11, 12, 14)	A	-	-	-	-	-	-	-	-	
Fuel oil	A	A	A	A	B	B	A	A	A	
Fuel oil (acid)	A	B	A	A	U	B	U	B	B	
Furfurol	A	A	A	A	B	A	B	A	A	
Gasoline	A	A	A	A	A	A	A	A	A	
Glue	A	A	A	A	A	A	A	A	A	
Glycerin E	A	A	A	A	A	A	A	A	A	
Glycols	A	-	-	-	-	-	-	-	-	
Gold	A	-	-	-	-	-	-	-	-	
Heat transfer oils	A	-	-	-	-	-	-	-	-	
Hexachloro benzene	A	-	-	-	-	-	-	-	-	

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Hexachlorophenyl acetic acid	A	-	-	-	-	-	-	-	-	-
Hydraulic oils	A	-	-	-	-	-	-	-	-	-
Hydrazine	A	-	-	-	-	-	-	-	-	-
Hydrobromic acid	A	U	U	A	U	U	U	U	U	U
Hydrocarbons	A	-	-	-	-	-	-	-	A	-
Hydrochloric acid										
- all temperatures	A	-	-	-	-	-	-	-	-	-
- room temperature	A	U	U	A	U	U	U	U	U	U
Hydrocyanic acid	A	A	A	A	B	B	B	A	B	
Hydrofluoric acid	A	U	U	A	A	A	A	U	U	
Hydrofluorosilicic acid	A	-	A	A	B	-	B	U	U	
Hydrogen bromide	A	-	-	-	-	-	-	-	-	
Hydrogen chloride	A	U	U	U	B	B	B	U	U	
Hydrogen fluoride	A	-	-	-	-	-	-	-	-	
Hydrogen peroxide	A	A	A	A	B	B	B	A	U	
Hydrogen sulphide (aqueous)	A	A	A	A	B	B	B	A	U	
Iodine	A	-	-	-	-	-	-	-	-	-
Iron	U	-	-	-	-	-	-	-	-	-
Isooctane	A	-	-	-	-	-	-	-	-	-
Isopropyl acetate	A	-	-	-	-	-	-	-	-	-
Isopropyl alcohol	A	-	-	-	-	-	-	-	A	-
Isopropyl ether	A	-	-	-	-	-	-	-	-	-
Lactic acid	A	B	A	A	B	U	U	B	U	
Lead	A	-	-	-	-	-	-	-	-	
Linseed oil	A	A	A	A	A	A	A	A	A	
Lye (caustic)	A	U	A	A	A	A	A	A	A	
Magnesium	A	-	-	-	-	-	-	-	-	-
Magnesium carbonate	A	B	A	A	A	A	A	A	U	

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Magnesium chloride	A	B	A	A	A	A	A	A	B
Magnesium hydroxide	A	U	A	A	A	A	A	A	A
Magnesium nitrate	A	A	A	A	B	B	-	A	B
Magnesium sulphate	A	A	A	A	B	B	B	A	A
Maleic acid	A	-	-	-	-	-	-	-	-
Manganese carbonate	A	A	A	B	B	B	B	A	U
Manganese chloride	A	U	B	B	B	B	B	A	U
Manganese sulphate	A	-	-	-	-	-	-	-	-
Mannitol	A	-	-	-	-	-	-	-	-
Mercaptanes	A	-	-	-	-	-	-	-	-
Mercuric chloride	A	U	U	A	U	U	U	U	U
Mercury	A	U	A	A	A	B	B	A	A
Methyl alcohol	A	-	-	-	-	-	-	A	-
Methyl ethyl ether	A	-	-	-	-	-	-	A	-
Methyl ethyl ketone	A	-	-	-	-	-	-	A	-
Methyl isobutyl ketone	A	-	-	-	-	-	-	A	-
Methylene chloride	A	U	U	A	U	U	U	U	B
Mobiltherm	A	-	-	-	-	-	-	-	-
Monochloro acetic acid	A	-	-	-	-	-	-	-	-
Monochloro benzene	A	-	-	-	-	-	-	-	-
Monoethanolamine	A	-	-	-	-	-	-	-	-
Monovinyl acetate	A	-	-	-	-	-	-	-	-
Muriatic acid	A	U	U	A	U	U	U	U	U
Nickel chloride	A	-	-	-	-	-	-	-	-
Nickel plating solution	A	-	-	-	-	-	-	-	-
Nickel sulphate	A	-	-	-	-	-	-	-	-
Nitrating acid	U	-	-	-	-	-	-	-	-
Nitric acid (< 65 %)	A	U	A	A	U	U	U	A	U
Nitrobenzene	A								
Nitrogen	A	-	-	-	-	-	-	-	-

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Nitrous acid	A	B	A	B	B	B	B	B	A	U
Nitrous oxide	A	A	A	A	U	A	U	B	B	
Octyl alcohol	A	B	B	B	B	B	B	A	B	
Oleic acid	A	A	A	A	A	B	B	A	B	
Oleum	U	-	-	-	-	-	-	-	-	
Oxalic acid	A	B	A	A	B	B	B	A	U	
Oxygen	B	-	-	-	-	-	-	-	-	
Paint thinner	A	-	-	-	-	-	-	-	-	
Paradichloro benzene	A	-	-	-	-	-	-	-	-	
Paraffin oil	A	A	A	A	A	A	A	A	A	
Paraldehyde	A	-	-	-	-	-	-	-	-	
Parkerizing solution	A	-	-	-	-	-	-	-	-	
Perchloric acid (< 20 %)	A	-	-	-	-	-	-	-	-	
Petroleum	A	A	A	A	A	A	A	A	A	
Phenol	A	-	-	-	-	-	-	-	-	
Phenyl acetic acid	A	-	-	-	-	-	-	-	-	
Phosgene	A	-	-	-	-	-	-	-	-	
Phosphoric acid	A	U	A	A	B	B	B	A	U	
Phosphorous trichloride	A	-	-	-	-	-	-	-	-	
Phthalic acid	A	-	-	-	-	-	-	-	-	
Picric Acid	A	A	A	A	U	U	U	A	A	
Potash	A	-	-	-	-	-	-	-	-	
Potassium (< 350 °C)	A	-	-	-	-	-	-	-	-	
Potassium bromide	A	B	A	A	B	A	B	A	B	
Potassium carbonate	A	B	A	A	B	A	A	A	B	
Potassium chlorate	U	-	-	-	-	-	-	-	-	
Potassium chloride	A	B	A	A	B	B	B	A	A	
Potassium cyanide	A	U	A	A	B	B	B	A	A	
Potassium hydrogensulphate	A	-	-	-	-	-	-	-	-	

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Potassium hydroxide	A	U	A	A	B	A	A	A	A	B
Potassium nitrate	A	-	-	-	-	-	-	-	-	-
Potassium sulphate	A	A	A	B	B	B	B	A	A	
Propane	A	-	-	-	-	-	-	A	A	
Propylene	A	-	-	-	-	-	-	-	-	
Rayon Spin Bath	A	-	-	-	-	-	-	-	-	
Refrigerants 11 and 12	A	-	-	-	-	-	-	-	-	
Sea water	A	B	A	A	B	B	B	A	B	
Sewage	A	B	-	-	-	-	-	A	B	
Silicones	A	-	-	-	-	-	-	-	-	
Siloxanes	A	-	-	-	-	-	-	-	-	
Silver	A	-	-	-	-	-	-	-	-	
Silver nitrate	A	U	A	B	B	U	U	A	U	
Soaps	A	B	A	A	A	A	A	A	A	
Sodium bicarbonate	A	B	A	A	A	A	A	A	B	
Sodium bisulphate	A	B	A	A	B	B	B	A	U	
Sodium bromide	A	B	A	A	B	B	B	A	B	
Sodium carbonate	A	B	A	A	B	B	B	A	A	
Sodium chloride	A	B	A	A	A	A	A	A	A	
Sodium hydroxide	A	U	A	A	A	A	A	A	A	
Sodium hypochlorite	A	U	B	A	U	U	U	A	U	
Sodium nitrate	A	A	A	A	A	B	B	A	A	
Sodium peroxide	A	A	A	A	B	B	B	A	B	
Sodium phosphate	A	A	A	A	B	B	B	A	B	
Sodium silicate	A	B	A	A	B	B	B	A	A	
Sodium sulphate	A	A	A	A	B	B	B	A	A	
Sodium sulphide	A	U	A	A	B	B	B	A	A	
Soy bean oil	A	A	A	A	-	B	-	A	U	
Stannic chloride	A	U	A	A	B	B	B	A	U	

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Steam (all commercial)	A	A	A	A	A	A	A	A	A	A
Stearic acid	A	A	A	A	B	B	B	A	B	
Styrene	A	-	-	-	-	-	-	-	-	-
Sulphonic acids	A	-	-	-	-	-	-	-	-	-
Sulphur (molten)	A	A	A	A	A	U	U	A	A	
Sulphur chloride	A	U	A	A	B	B	B	U	B	
Sulphur dioxide	A	A	A	A	A	A	A	A	A	A
Sulphur hexafluoride	A	-	-	-	-	-	-	-	-	-
Sulphur monochloride	A	-	-	-	-	-	-	-	-	-
Sulphur trioxide	U	-	-	-	-	-	-	-	-	-
Sulphuric acid										
- fuming	A	A	A	A	U	U	U	A	B	
- < 95 %	A	-	-	-	-	-	-	-	-	-
- < 10 % (cold)	A	B	A	A	U	B	B	B	U	
- < 10 % (hot)	A	U	B	A	U	B	U	U	U	
- 10 - 50 % (cold)	A	U	A	A	U	B	U	U	U	
- 10 - 50 % (hot)	A	U	U	A	U	U	U	U	U	
Sulphurous acid	A	-	-	-	-	-	-	-	-	-
Tannic acid	A	B	A	A	B	B	B	A	U	
Tartaric acid	A	B	A	A	B	B	B	A	U	
Tetrachloroethane	A	-	-	-	-	-	-	-	-	-
Therminol (all types)	A	-	-	-	-	-	-	-	-	-
Thionylchloride	A	-	-	-	-	-	-	-	-	-
Tin	A	-	-	-	-	-	-	-	-	-
Transformer oils	A	-	-	-	-	-	-	-	-	-
Trichloro acetic acid	A	-	-	-	-	-	-	-	-	-
Trichloro ethylene	A	-	-	-	-	-	-	-	-	-
Triethylamino ethanol	A	-	-	-	-	-	-	-	-	-
Ucon (all types)	A	-	-	-	-	-	-	-	-	-

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Resistance:		A = good		B = moderate			U = unsatisfactory		
Compatibility of media	Homo-	Graphite laminate with insert							
with	geneous Graphite	Alumi- num	Alloy 20	Hastel- loy	Inco- nel 600	Monel 400	Nickel 200	316 S.S.	Steel
Vinegar	A	B	A	A	A	A	A	A	B
Water - Borated	A	-	-	-	-	-	-	-	-
Water - Deaerated	A	-	-	-	-	-	-	-	-
Wood's alloy	A	-	-	-	-	-	-	-	-
Xylene	A	-	-	-	-	-	-	A	U
Zinc	A	-	-	-	-	-	-	-	-
Zinc ammonium chloride	A	-	-	-	-	-	-	-	-
Zinc chloride	A	U	A	B	B	B	B	U	B
Zinc sulphate	A	B	A	A	B	B	B	A	B