

# Iwaki America Chemical Compatibility Chart



The data presented in this chart is based on information furnished by the manufacturers of the raw materials and our experience. This information may be considered as a basis for recommendation, but NOT AS A GUARANTEE. Materials should be tested under actual service conditions to determine suitability for a particular purpose. Added considerations other than chemical compatibility, i.e. motor characteristics, available NPSH, system pressure, required shaft power etc, should be given to particular applications.

Liquid	Molecular Formula	S.G.	Conc. %	MDM Series Temp. Max. °C				MMP Series MP Series Metallic 316S	Temp °C	MXM Series					MX Series			MD Series	MD-F Series Temp 80°C	
				PFA		ETFE				MX-F Series (Max. 80°C)					Temp °C	CV	RV			AV
				KK	CF	KK	CF	CV	AA/AV	CF/FV	RV	KK	CV	RV				AV		
Acetic Acid	CH3COOH	1.05	50	100	100	80	80	O	80	OE	OE	OE	OE	O	40	OE	OE	OE	OE	OE
Aceton	CH3COCH3	0.79	100	BP	BP	BP	BP	O	BP	OE	OE	O	O	OE		X	X	X	X	BPE
Acetyl Chloride	CH3COCl	1.10	100	80	80	X	X	X		X	X	X	X	X		X	X	X	X	X
Adipic Acid	COOH(CH2)4COOH	1.19	60	120	120	100	100	O	100	O	O	O	O	O	24	O	O	OE	O	O
Aluminium Chloride	AlCl3	1.42	50	120	120	100	100	X	100	O	O	O	O	O	80	10%O	10%O	10%O	10%O	O
Aluminium Nitrate	Al(NO3)3	1.40	40	100	100	100	100	80°C 10% O	100	O	O	O	O	O	80	20%O	20%O	10%O	20%O	O
Aluminium Sulphate	Al2(SO4)3	1.21	27.6	100	100	100	100	100°C O	100	O	O	O	O	O	55	O	O	O	O	O
Ammonia Water	NH4OH	0.89	30	120	120	100	100	50% O	100	OE	OE	OE	OE	OE	50	OE	OE	OE	OE	OE
Ammonium Chloride	NH4Cl	1.07	27	120	120	100	100	10% O	100	O	O	O	O	O	80	O	O	O	O	O
Ammonium Fluoride	NH4F	1.00	50	120	120	100	100	X	100	O	O	O	O	O	60	O	O	O	O	O
Ammonium Nitrate	NH4NO3	1.17	40	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Ammonium Oxalate	(NH4)2C2O4-H2O	1.04	10.5	120	120	100	100	O	100	O	O	O	O	O	40	O	O	O	O	O
Ammonium Perchlorate	NH4ClO4	1.11	20	120	40	100	40	X	40	O	O	O	O	O	40	O	O	O	O	O
		1.11	20	120	40	100	40	X	100	X	O	X	O	O	25	X	O	O	O	O
Ammonium Peroxydisulphate	(NH4)2S2O6	1.22	37	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Ammonium Phosphate	(NH4)3PO4		17	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Aniline	C6H5NH2	1.02	100	120	120	40	40	O	20	O	O	O	O	O	20	O	O	O	O	40°C
Aqua Regia	HCl+HNO3 (3:1 Ratio)			60	X	20	X	X	20	X	O	X	O	O		X	X	X	X	20°C
Arsenic Acid	H3AsO4	1.02	14	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Barium Carbonate	BaCO3	1.00	Saturated	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Barium Chloride	BaCl2	1.15	15	120	120	100	100	100°C O	100	O	O	O	O	O	80	O	O	O	O	O
Barium Nitrate	Ba(NO3)2	1.06	8.5	120	120	100	100	O	100	O	O	O	O	O	80	5%O	5%O	5%O	5%O	O
Benzaldehyde	C6H5CHO	1.05	100	40	40	20	20	O	20	O	O	O	O	O		X	X	O	X	20°C
Benzoyl Chloride	C6H5COCl	1.22	100	60	X	X	X	ND		X	X	X	X	X		X	X	X	X	X
Bleach				<b>See Sodium Hypochlorite</b>																
Boric Acid	H3BO3	1.07	23	120	120	100	100	30% O	100	O	O	O	O	O	70	2%O	2%O	2%O	2%O	O
Brass Plating	Cu(CN)2, EN(CN)2, NaCN,KSCN			120	120	100	100	ND	100	O	O	O		O		X	X	X	X	O
Bromine Water	Br2+H2O		Saturated	80	80	X	X	X	100	<>	<>	<>	<>	X		X	X	X	X	X
Butyl Alcohol	C4H3OH	0.81	100	BP	BP	BP	BP	O	BP	O	O	O	O	O	50	O	O	O	O	BP
Cadmium Plating	Cd, NaCN			120	120	100	100	ND	100	O	O	O	O	O	30	<>	<>	<>	<>	O
Calcium Chlorate	Ca(ClO3)2		60	120	40	100	40	X	40	O	O	X	O	O	40	O	O	O	O	O
Calcium Chlorate	Ca(ClO3)2		60	120	40	100	40	X	100	X	O	X	<>	O	70	X	O	O	O	O
Calcium Chloride	CaCl2	1.39	40	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Calcium Hydroxide	Ca(OH)2	1.00	0.13	120	120	100	100	50% O	100	O	O	O	O	O	80	O	O	O	O	O
Calcium Nitrate	Ca(NO3)2	1.17	25	120	120	100	100	100°C 40% O	100	O	O	O	O	O	80	O	O	O	O	O
Calcium Sulphate	CaSO4	1.00	0.19	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Carbonic Acid	H2CO3		Saturated	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O

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				PFA		ETFE		Metalic 316S	Temp °C	MX-F Series (Max. 80°C)					Temp °C	CV		RV	AV	Temp 80°C	
				KK	CF	KK	CF			CV	AA/AV	CF/FV	RV	KK							
Caustic Potash	KOH			See Caustic Soda																	
Caustic Soda	NaOH	1.11	10	120	120	100	100	50% O	30	OE	OE	OE	OE	OE	30	OE	OE	OE	OE	OE	
		1.22	20	120	120	100	100	50% O	60	X	X	OE	OE	OE		X	X	X	X	X	OE
		1.53	50	120	120	100	100	50% O	80	X	X	OE	OE	OE		X	X	X	X	X	OE
Chlorine Dioxide	ClO2	1.04	6	40	40	20	20	X	20	O	O	O	O	O		X	X	X	X	X	20°C
Chlorine Water	Cl2+H2O		0.7	120	40	100	40	X	40	O	O	O	O	O		X	X	X	X	X	O
			0.7	120	40	100	40	X	100	X	O	X	X	O		X	X	X	X	X	O
Chloroacetic Acid	CH2ClCOOH	1.19	50	120	120	100	100	X	100	O	O	O	O	O		X	X	X	X	X	O
Chloroform	CHCl3	1.50	100	60	60	X	X	O		X	X	X		X		X	X	X	X	X	X
Chromic Acid	H2CrO4	1.94	60	80	X	80	X	X	80	X	O	X	O	O	50	X	15%O	15%O	15%O	15%O	O
Chromium Plating	CrO3, H2SO4, Na2SiF6			120	X	100	X	X	100	X	O	X	O	O		X	X	X	X	X	O
Chromium Sulphate				120	X	100	X	ND	80	X		X	O	O		X		X	X	X	O
Citric Acid	(CH2COOH)O(CH)COOH	1.33	50	120	120	100	100	50% O	100	O	O	O	O	O	40	O	O	O	O	O	O
Copper Acid Bath	CuSO4,Cu,H2SO4			120	120	100	100	ND	100	O	O	O	O	O		X	X	X	X	X	O
Copper Alkali Bath	Cu(CN)2,NaCN,KCN			100	100	80	80	ND	80	O	O	O	O	O		X	X	X	X	X	O
Copper Carbonate	CuCO3	1.10	Saturated	120	120	100	100	ND	100	O	O	O	O	O	80	O	O	O	O	O	O
Copper Cyanide	Cu(CN)2	1.00	Saturated	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O	O
Copper Fluoride	CuF	1.00	0.75	80	50	70	50	ND	50	X	X	O	O	O		X	X	X	X	X	70°C
Copper Nitrate	Cu(NO3)2	1.34	50	120	120	100	100	10% O	100	O	O	O	O	O	80	O	O	O	O	O	O
Copper Sulphate	CuSO4	1.04	5	100	100	100	100	10% O	100	O	O	O	O	O	80	O	O	O	O	O	O
Cresol	C6H4OHCH3	1.05	100	80	80	40	40	O	20	O	O	O	O	O	20	O	O	O	O	O	40°C
Cyanic Acid	HCN	0.96	20	120	120	100	100	X	100	O	O	O	O	O	50	O	O	O	O	O	O
Cyclohexane	C6H12	0.78	100	120	120	40	40	O	20	O	O	O	O	O		X	X	X	X	X	40°C
Cyclohexanol	C6H11OH	0.97	100	80	80	40	40	X	20	O	O	O	O	O	20	O	O	O	O	O	40°C
Dichloroethane	C2H4Cl2	1.25	100	80	80	X	X	O		X	X	X		X		X	X	X	X	X	X
Dichloroethylene	C2H2Cl2	1.21	100	80	80	X	X	O		X	X	X		X		X	X	X	X	X	X
Di-methyl Amine	(CH3)2NH	0.69	100	BP	BP	BP	BP	O	BP	O	O	O	O	O		X	X	X	X	X	BP
Ethyl Alcohol	C2H5OH	0.79	100	BP	BP	BP	BP	O	BP	O	O	O	O	O	BP	O	O	O	O	O	BP
Ethylene Glycole	CH2OH·CH2OH	1.11	100	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O	O
Ethylenediamine Tetraacetic Acid			100	40	40	20	20	ND	20	OE	OE	OE	OE	OE		X	X	X	X	X	20°C
Fatty acid	CH3(CH2)2COOH		100	120	120	40	40	O	20	O	O	O	O	O	20	O	O	O	O	O	40°C
Ferric Chloride	FeCl3	1.50	47.9	120	120	100	100	X	100	O	O	O	O	O	60	O	O	O	O	O	O
Ferric Nitrate	Fe(NO3)3	1.07	16	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O	O
Ferric Sulphate	FeSO4	1.25	30	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O	O
Ferrous Chloride	FeCl2	1.40	38.5	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O	O
Ferrous Nitrate	Fe(NO3)2	1.22	45	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O	O
Ferrous Sulphate	Fe2(SO4)3	1.17	21	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O	O
Freon R-11	CCl2F2	1.49	100	BP	BP	X	X	X		X	X	X	X	X		X	X	X	X	X	X
Formic Acid (Formaldehyde)	HCOOH	1.22	100	80	80	40	40	X	20	OE	OE	OE	OE	OE	20	OE	OE	OE	OE	OE	40°C
Gasoline			100	100	100	100	100	O	100	O	O	O	O	O		X	X	X	X	X	O
Glycerine	(CH2OH)2CHOH	1.46	100	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O	O
Gold plating	AuC, (COOH)2-2H2O			120	120	100	100	ND	100	O	O	O	O	O	40	O	O	O	O	O	O
Gold plating	AuCN, H3PO4			120	120	100	100	ND	100	O	O	O	O	O	40	O	O	O	O	O	O
Gold plating	AuCN, CN, H2CO3			120	120	100	100	ND	100	O	O	O	O	O		X	X	X	X	X	O
Gold plating	Au(CN)2, HCl			120	120	100	100	ND	100	O	O	O	O	O		X	X	X	X	X	O
Gold plating	Au(CN)2, CN, H2CO3			120	120	100	100	ND	100	O	O	O	O	O		X	X	X	X	X	O
Gold plating	(Non Cyanide), H2SO3			120	120	100	100	ND	100	O	O	O	O	O	40	X	X	X	X	X	O

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Liquid	Molecular Formula	S.G.	Conc. %	MDM Series Temp. Max. °C				MMP Series	Temp °C	MXM Series					Temp °C	MX Series			MD Series	MD-F Series
				PFA		ETFE		Metallic 316S		MX-F Series (Max. 80°C)						CV	RV	AV		Temp 80°C
				KK	CF	KK	CF			CV	AA/AV	CF/FV	RV	KK						
Heptane	C6H16	0.68	100	120	120	100	100	O	100	O	O	O	O	O		X	X	X	X	O
Hydrazine	N2H4	1.01	100	50	50	50	50	O	50	O	O	O	O	O		X	X	X	X	50°C
Hydrobromic Acid	HBrO3(HBr)	1.46	50	120	120	X	X	X		<>	<>	<>	<>	<>		X	X	X	X	X
Hydrochloric Acid	HCl	1.18	38	120	120	100	100	X	100	O	O	O	O	O	40	10%O	10%O	10%O	10%O	O
Hydrofluoric Acid	HF	1.15	50	80	20	70	20	X	50	X	X	O	O	O		X	X	X	X	70°C
Hydrogen Peroxide	H2O2	1.44	100	120	X	100	X	10% O	25	X	O	X	O	O	25	X	30%O	30%O	30%O	O
Hydroiodic Acid	HI	1.40	40	100	100	80	80	X	80	O	O	O	O	O		X	X	X	X	O
Hydrosilicofluoric Acid	H2SiF6	1.13	50	80	X	70	X	X	50	X	X	O	O	O		X	X	X	X	70°C
Hypochlorous Acid	HCIO		10	120	X	100	X	X	100	X	O	X	O	O		X	X	X	X	O
Kerosene	C10~16		100	120	120	100	100	O	100	O	O	O	O	O		X	X	X	X	O
Lactic Acid	C3H6O3	1.03	16	120	120	100	100	50°C 60% O	100	O	O	O	O	O	20	O	O	O	O	O
Lead Plating			100	120	120	100	100	ND	100	O	O	O	O	O		X	X	X	X	O
Lead Acetate	Pb(CH3COO)2·3H2O	1.40	40	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Liquid Petrolatum			100	120	120	100	100	O	100	O	O	O	O	O		X	X	X	X	O
Magnesium Carbonate	MgCO3	1.21	0.15	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Magnesium Chloride	MgCl2	1.30	34	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Magnesium Fluoride	MgF2	1.03	4	80	50	70	50	ND	50	X	X	O	O	O		X	X	X	X	70°C
Magnesium Hydroxide	Mg(OH)2	1.00	Saturated	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Magnesium Nitrate	Mg(NO3)2	1.10	24	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Magnesium Sulphate	MgSO4	1.19	25.3	120	120	100	100	40% O	100	O	O	O	O	O	80	O	O	O	O	O
Maleic Acid	HOOCCH=CHCOOH	1.42	80	120	120	100	100	O	100	O	O	O	O	O		X	X	X	X	O
Matting Acid				See Sulfuric Acid																
Manganese Chloride	MnCl2	1.18	20	120	120	100	100	100°C 30% O	100	O	O	O	O	O	80	O	O	O	O	O
Mercuric Chloride	HgCl2	1.05	6	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Mercuric Nitrate	Hg(NO3)2	1.16	25	100	100	20	20	X	20	O	O	O	O	O	20	O	O	O	O	20°C
Mercurous Chloride	Hg2Cl2	1.05	Saturated	120	120	100	100	X	100	O	O	O	O	O	40	O	O	O	O	100
Mercurous Nitrate	Hg2(NO3)2	1.22	23	100	100	20	20	ND	20	O	O	O	O	O	20	O	O	O	O	20°C
Methanol	CH3OH	0.79	100	BP	BP	BP	BP	O	BP	OE	OE	OE	OE	OE	80	OE	OE	OE	OE	BPE
Mixture Acid	H2SO4+HNO3	1.68		80	X	50	X	O	50	X	O	O	O	O		X	X	X	X	50°C
	H2SO4+H2CrO4	2.20		60	X	20	X	ND	20	X	O	X	O	O		X	X	X	X	20°C
Muriatic Acid				See Hydrochloric Acid																
Naphtha			100	120	120	100	100	O	100	O	O	O	O	O		X	X	X	X	O
Nickel Chloride	NiCl2	1.10	10	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Nickel Nitrate	Ni(NO3)2	1.33	48	120	120	100	100	X	100	O	O	O	O	O	80	20%O	20%O	20%O	20%O	O
Nickel Plating (Lucid & Non Lucid)				120	120	100	100	ND	100	O	O	O	O	O	70	O	O	O	O	O
Nickel Sulphate	NiSO4	1.26	28	120	120	100	100	80°C 40% O	100	O	O	O	O	O	80	O	O	O	O	O
Nitric Acid	HNO3	1.35	50	100	X	80	X	O	50	X	O	O	O	O	50	X	X	X	X	O
		1.35	50	100	X	80	X	O	80	X	OA	X	O	OA	80	X	X	X	X	O
		1.51	98	50	X	40	X	20 O	40	X	<>A	X	O	OA		X	X	X	X	40°C
Nitrouse Acid	HNO2		40	120	120	100	100	25°C O	100	O	O	O	O	O	25	O	O	O	O	O
Oleic Acid	C18H34O2	0.89	100	120	120	100	100	O	100	OE	OE	OE	OE	OE	80	OE	OE	OE	OE	O
Oleum	H2SO4+SO3	1.92		40	X	20	X	25°C O	20	X	O	X	O	O		X	X	X	X	20°C
Oxalic Acid	(COOH)2·2H2O	1.90	100	120	120	100	100	30°C O	100	O	O	O	O	O	40	8%O	8%O	8%O	8%O	O
Perchloric Acid	HClO4	1.46	40	120	40	100	40	X	40	O	O	O	O	O		X	X	X	X	O
		1.46	40	120	40	100	40	X	100	X	O	X	O	O		X	X	X	X	O
Perchloroethylene	C2Cl4	1.62	100	80	80	X	X	O		X	X	X	X	X		X	X	X	X	X
Peroxide				See Hydrogen Peroxide																

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				PFA		ETFE		Metallic 316S		MX-F Series (Max. 80°C)						CV	RV	AV		Temp 80°C
				KK	CF	KK	CF			CV	AA/AV	CF/FV	RV	KK						
Phenol	C6H5OH	1.07	100	120	120	100	100	O	100	O	O	O	O	O	20	O	O	O	O	O
Phosphoric Acid	H3PO4	1.25	40	120	X	100	X	50°C 80% O	100	X	X	X	X	O		X	X	X	X	O
		1.69	85	50	X	50	X	50°C 80% O	20	X	X	X	X	O		X	X	X	X	50°C
Photographic Developer				120	120	100	100	ND	100	O	O	O	O	O	80	O	O	O	O	O
Photographic Fixative				100	100	80	80	ND	80	O	O	O	O	O	80	O	O	O	O	O
Picric Acid	C6H3O7N3	1.03	6.2	120	120	100	100	X	100	O	O	O	O	O		X	X	O	X	O
Potassium Bicarbonate	KNCO3	1.03	5	120	100	100	100	30% O	100			O		O						O
Potassium Bromide	KBr	1.37	40	120	120	100	100	100 90% O	100	O	O	O	O	O	80	30%O	30%O	30%O	30%O	O
Potassium Carbonate	K2CO3	1.45	53	120	120	100	100	O	100	O	O	O	O	O	80	30%O	30%O	30%O	30%O	O
Potassium Chlorate	KClO3	1.04	6.8	120	40	100	40	60% O	40	O	O	O	O	O	40	O	O	O	O	O
		1.04	6.8	120	40	100	40	60% O	100	X	O	X	O	O	60	X	O	O	O	O
Potassium Chloride	KCl	1.28	36	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Potassium Chromate	K2CrO4	1.39	40	120	X	100	X	X	100	X	O	X	O	O	50	X	20%O	20%O	20%O	O
Potassium Cyanide	KCN	1.16	40	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Potassium Dicarboxylate	KHCO3	1.03	5	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Potassium Dichromate	K2Cr2O7	1.07	10	120	X	100	X	O	100	X	O	X	O	O	40	X	O	O	O	O
Potassium Ferricyanide	K3[Fe(CN)6]	1.16	30	120	120	100	100	20 O	100	O	O	O	O	O	40	10%O	10%O	10%O	10%O	O
Potassium Ferrocyanide	K4[Fe(CN)6]	1.10	20	120	120	100	100	O	100	O	O	O	O	O	40	10%O	10%O	10%O	10%O	O
Potassium Fluoride	KF	1.42	50	80	50	70	50	ND	50	X	X	O	O	O		X	X	X	X	70°C
Potassium Hydroxide				See Caustic Soda																
Potassium Iodide	KI	1.89	60	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Potassium Nitrate	KNO3	1.16	24	120	120	100	100	100 80% O	100	O	O	O	O	O	80	15%O	15%O	15%O	15%O	O
Potassium Perchlorate	KClO4	1.01	1.8	120	40	100	40	X	40	O	O	O		O		X	X	X	X	O
		1.01	1.8	120	40	100	40	X	100	X	O	X		O		X	X		X	O
Potassium Permanganate	KMnO4	1.03	4	X	40	X	40	X	40	O	O	O	O	X		X	X	X	X	X
		1.03	4	X	40	X	40	X	100	X	O	X	O	X		X	X	X	X	X
Racemic Acid			40	120	120	100	100	ND	100	O	O	O	O	O	80	O	O	O	O	O
Rhodium Phosphate	H3PO4			120	100	100	100	ND	100	O	O	O	O	O		X	X	X	X	O
Rhodium Sulphate	H2SO4			120	100	100	100	ND	100	O	O	O	O	O		X	X	X	X	O
Sea Water				120	120	100	100	25°C O	100	O	O	O	O	O	80	O	O	O	O	O
Silver Alkali Bath	KCN, KLI, Kag, (CN)2, KO4, KL03			120	120	100	100	ND	100	O	O	O	O	O	50	X	X	X	X	O
Silver Cyanide	AgCN		Saturated	120	120	100	100	ND	100	O	O	O	O	O	80	O	O	O	O	O
Silver Nitrate	AgNO3	1.69	50	120	120	100	100	60% O	100	O	O	O	O	O	80	25%O	25%O	25%O	25%O	O
Sodium Bisulphite	NaHSO3		Saturated	120	120	100	100	80°C 10% O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Bisulphate	NaHSO4	1.04	5	120	120	100	100	80°C 10% O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Carbonate	Na2CO3	1.10	100	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Chlorate	NaClO3	1.23	30	120	40	100	40	X	40	O	O	O	O	O	40	O	O	O	O	O
		1.23	30	120	40	100	40	X	100	X	O	X	O	O	60	X	O	O	O	O
Sodium Chloride	NaCl	1.19	25	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Chlorite	NaClO2		10	120	X	100	X	X	100	X	O	X	O	O		X	X	X	X	O
Sodium Cyanide	NaCN	1.22	40	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Dichromate	Na2Cr2O7	1.40	60	120	X	100	X	100 O	100	X	O	X	O	O	40	X	O	O	O	O
Sodium Ferricyanide	Na4[Fe(CN)6]	1.10	30	120	120	100	100	20 O	100	O	O	O	O	O	40	10%O	10%O	10%O	10%O	O
Sodium Ferrocyanide	Na[Fe(CN)6]	1.17	50	120	120	100	100	ND	100	O	O	O	O	O	40	10%O	10%O	10%O	10%O	O
Sodium Fluoride	NaF	1.03	4	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Hydroxide				See Caustic Soda																
Sodium Hypochlorite	NaClO	1.14	12	100	X	100	X	X	100	X	O	X	O	O		X	X	X	X	O

## Iwaki America Chemical Compatibility Chart

Liquid	Molecular Formula	S.G.	Conc. %	MDM Series Temp. Max. °C				MMP Series	Temp °C	MXM Series					MX Series			MD Series	MD-F Series	
				PFA		ETFE		Metalic 316S		MX-F Series (Max. 80°C)					Temp °C	CV	RV		AV	Temp 80°C
				KK	CF	KK	CF			CV	AA/AV	CF/FV	RV	KK						
Sodium Iodide	NaI	1.61	64	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Nitrite	NaNO2	1.30	45	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Oxalate	Na2(COO)2	1.11	17.5	120	120	100	100	ND	100	O	O	O	O	O	40	O	O	O	O	O
Sodium Perborate	NaBO3	1.04	5	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Peroxide	Na2O2	1.35	40	120	X	100	X	10% O	100	X	O	X	O	O	80	X	O	O	O	O
Sodium Phosphate	Na3PO4	1.02	4	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Sulphate	Na2SO4	1.10	14	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Sodium Thiosulfate	Na2S2O3		41	120	120	80	80	20% O	80	O	O	O	O	O	80	25%O	25%O	25%O	25%O	O
Solder Plating	Sn(BF4)2, Pb, HBF4			120	120	100	100	ND	100	O	O	O	O	O		X	X	X	X	O
Stannic Chloride	SnCl4	2.20	100	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Stannous Chloride	SnCl2	1.77	60	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Sulphuric Acid	H2SO4	1.23	25	120	80	100	80	X	100	O	O	O	O	O	50	10%O	10%O	10%O	10%O	O
		1.62	70	120	80	100	80	X	80	O	O	O	O	O		X	X	X	X	O
		1.84	98	100	50	100	50	X	50	O	O	O	O	O		X	X	X	X	O
Sulphurous Acid	H2SO3	1.06	10	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Tartaric Acid	C4H6O6	1.20	40	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
Tetrachloro Carbon	CCl4	1.59	100	80	80	X	X	X		X	X	X	X	X		X	X	X	X	X
Tin Acid Bath	SnSO4, H2SO4, C7H8O4S			120	120	100	100	ND	100	O	O	O	O	O	20	O	O	O	O	O
Tin Alkali Bath	K2SnO3, Sn, Naoh, KOH			120	120	100	100	ND	100	O	O	O	O	O		X	X	X	X	O
Toluene	C6H5CH3	0.87	100	40	40	20	20	O	20	O	O	O	O	O		X	X	X	X	20°C
Trichloro Ethylene	C2HCl3	1.33	100	80	80	X	X	X		X	X	X	X	X		X	X	X	X	X
Vinegar	SME, LLYZ			120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O
White Gold	H2SO4, HOS04, NH2			120	120	100	100	ND	100	O	O	O	O	O		X	X	X	X	O
Zinc Acid Bath	ZnSO4, Na2SO4, MaSO4			120	120	100	100	ND	100	O	O	O	O	O	65	O	O	O	O	O
Zinc Alkali Bath	Zn, NaCN, NaOH			120	120	100	100	ND	100	O	O	O	O	O		X	X	X	X	O
Zinc Chloride	ZnCl2	1.57	100	120	120	100	100	10% O	100	O	O	O	O	O	80	O	O	O	O	O
Zinc Cyanide	Zn(CN)2	1.05	10	120	120	100	100	X	100	O	O	O	O	O	80	O	O	O	O	O
Zinc Nitrate	Zn(NO3)2	1.75	60	120	120	100	100	O	100	O	O	O	O	O	80	30%O	30%O	30%O	30%O	O
Zinc Sulphate	ZnSO4	1.33	35	120	120	100	100	O	100	O	O	O	O	O	80	O	O	O	O	O

**Legend:**

- O = Excellent
- OE = Use EPDM O-ring
- <> = Fair to Poor
- X = Not Recommended
- BP = Boiling Point
- ☐ = No Chemical Compatibility Information is available
- OA = Use aflas o-ring
- OS = Use SiC mouth ring
- ND = No Data