



Chem Proline® - Water Treatment Chemicals - Quick Reference Guide

Symbols: + = Resistant, x = Not Resistant. * All references are based on ambient temperature liquid.

Chemical Name	Chemical Symbol	Common Uses	Typical Concentrations / Conditions	Chem Proline Pipe Reference	Alternative Pipe Reference	Chem Proline Valve Body/Seal Material	Special Considerations
Aluminum Sulfate (Alum)	Al ₂ (SO ₄) ₃	Coagulant Flocculant	< 50%	+		PVC/EPDM	
Aluminum Chlorohydrate	Al ₂ Cl(OH)	Coagulant Flocculant	100%	+		PVC/EPDM	
Aluminum Hydroxide	Al(OH) ₃	Coagulant Flocculant	50%	+		PVC/EPDM	
Ammonia	NH ₃	Biocide	Gas Anhydrous	+		PVC/EPDM	
Ammonium Chloride	NH ₄ Cl	Water Treatment - Polymers	20%	+		PVC/EPDM	Vented Ball Valves
Ammonium Hydroxide	NH ₄ OH	Disinfection	40%	+		PVC/EPDM	(Aqueous Ammonia)
Ammonium Sulphate	(NH ₄) ₂ SO ₄	Biocide Chloramination	40%	+		PVC/EPDM	
Monosodium Phosphate	NaH ₂ PO ₄	RO Membranes Antiscalant	Solution	+		PVC/EPDM	
Aqueous Ammonia	NH ₄ OH	Biocide Chloramination	19%	+		PVC/EPDM	
Ascorbic Acid	C ₆ H ₈ O ₆	Dechlorination	Solution	+		PVC/EPDM	Based on Citric Acid. Ascorbic info N/A
Sodium Hypochlorite (Bleach)	NaOCl	Biocide	up to 25%	+		PVC/FKM	Vented Ball Valves
Calcium Carbonate	CaCO ₃	Neutralizing Agent	Solution	+		PVC/EPDM	
Calcium Chloride	CaCl ₂	Clarifying Agent / Drainage Aid / pH Control	Solution	+		PVC/EPDM	Vented Ball Valves
Calcium Fluoride	CaF ₂	Fluoridation	Solution	+		PVC/EPDM	No info for CaF ₂ . Based on CaCl ₂

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Calcium Hydroxide Solution (Lime)	Ca(OH) ₂	Neutralizing Agent	Solution	+		PVC/EPDM	
Calcium Hypochlorite	Ca(ClO) ₂	Biocide	Solution	+		PVC/FKM	Vented Ball Valves
Calcium Oxide (Quicklime)	CaO ₂	Softening	Solution	+		PP/EPDM	
Calcium Thiosulfate	CaS ₂ O ₃	Dechlorination	30%	+		No info. Available	
Carbon Dioxide	CO ₂	Corrosion Control	Gas	+		PVC/EPDM	
Sodium Hydroxide (Caustic)	NaOH	PH Adj./Corrosion Control	50%	+		PVC/EPDM	
Chlorine Dioxide	ClO ₂	Biocide	0.1 - 0.5%	x	HALAR E-CTFE	PVC/PTFE Dia. valves	
Citric Acid	C ₆ H ₈ O ₇	Resin/Membrane Cleaner	Solution	+		PVC/EPDM	
Copper Sulphate	CuSO ₄	Algaecide/Taste - Odor Control	22%	+		PVC/EPDM	
Nitrates & Nitrites		Corrosion Inhibitor	Solution	+		PVC/EPDM	
Ferric Chloride	FeCl ₃	Flocculant	40%	+		PVC/EPDM	Vented Ball Valves
Ferrous Chloride	FeCl ₂	Flocculant	40%	+		PVC/EPDM	Vented Ball Valves
Ferric Sulfate	FE ₂ (SO ₄) ₃	Coagulant	50%	+		PVC/EPDM	
Formic Acid	HCO ₂ H	Biocide Enhancer	Aqueous 85%	+		PVC/EPDM	

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Hydrochloric Acid	HCl	PH Adjustment	37%	+		PVC/FKM	Vented Ball Valves
Hydrofluosilicic Acid	H ₂ SiF ₆	Fluoridation	50%	+		PVC/EPDM	
Hydrogen Peroxide	H ₂ O ₂	Oxidant	100%	+		PVDF/PTFE Dia. Valve	
Lithium Bromide	LiBr	Absorption - Refrigerant	Solution	+		PVC/EPDM	
Methanol (Methyl Alcohol)	CH ₃ OH	Nitrate to Nitrogen Conversion	Pure	+		PVC/EPDM	
Oxygen	O ₂	Disinfection	Gas	+		PVC/EPDM	
Ozonated Water	H ₂ O + O ₃	Biocide	Dilute Solution	+		PVC/EPDM	≥ 0.5 ppm
Ozone	O ₃	Biocide	Gas	x	HALAR E-CTFE	PVC/EPDM	
Peracetic Acid	CH ₃ CO ₃ H	Biocide	12%	+		PVC/EPDM	
Phosphoric Acid	H ₃ PO ₄	Corrosion Control	Solution	+		PVC/EPDM	
Polyaluminum Chloride	Al(OH)Cl ₃	Coagulant	Solution 20%	+		PVC/EPDM	
Polymers		Dispersant	Solution	+		PVC/EPDM	
Potassium Hydroxide	KOH	Clarification Coagulant- Flocculant/Corrosion Control	50%	+		PVC/EPDM	
Potassium Permanganate	KMnO ₄	Biocide / Taste - Odor Control	1 - 4%	+		PVC/EPDM	
Sodium Carbonate (Soda Ash)	Na ₂ CO ₃	Softening	Solution	+		PVC/EPDM	
Sodium Aluminate	NaAl(OH ₄)	Coagulant	Solution	+		PVC/EPDM	

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Sodium Bisulfite	NaHSO ₃	Excess Chlorine Removal	40%	+		PVC/EPDM	
Sodium Chloride	NaCl	Softening	Solution	+		PVC/EPDM	
Sodium Chlorite	NaClO ₂	ClO ₂ Generation	25%	+		PVDF/PTFE Dia. Valve	
Sodium Fluoride	NaF	Fluoridation	Solution	+		PVC/EPDM	
Sodium Fluorosilicate	Na ₂ SiF ₆	Fluoridation	Solution	+		PVC/EPDM	
Sodium Nitrite	NaNO ₂	Odor Control	10%	+		PVC/EPDM	
Sodium Polyphosphates	Na ₃ PO ₄	Corrosion Control	Solution	+		PVC/EPDM	
Sodium Silicate	Na ₂ SiO ₃	Coagulant/Flocculant	Solution	+		PVC/EPDM	
Sodium Sulfite	Na ₂ SO ₃	Oxygen Scavenger/Dechlorination	Solution	+		PVC/EPDM	
Sodium Thiosulfate	Na ₂ S ₂ O ₃	Dechlorination	Solution	+		No info. Available	
Sulfur Dioxide	SO ₂	Dechlorination	Gas	+		PVC/EPDM	
Sulfuric Acid	H ₂ SO ₄	Raw Water Treatment & PH Adjustment	85%	+		PVC/FKM	
			86% - 93%	x	PVDF	PVDF/PTFE	
			93% - 98.3%	x	HALAR E-CTFE	HALAR E-CTFE	
Zinc Sulfate	ZnSO ₄	Corrosion Inhibitor	37%	+		PVC/EPDM	

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