Gardo® Pure WT — Water Treatment Products

Products	Form	Use	Parameters	Comments
CATIONIC COAGULANTS				
Gardo® Pure WT 2081	Liquid, alum-polymer blend	Neutralization and coagulation of suspended ions, oil splitting, and absorption of particulate	Dosage range will vary based upon the nature of the wastewater solids; medium molecular weight	Forms “microfloc” at pH 2–8; solids treated display enhanced coagulation, floc structure, size, and density
Gardo Pure WT 2082	Liquid, inorganic (Al/ Ca/Mg), mixed chloride solution	Primary coagulant; membrane compatible	Dosage range must be determined; proportional to charge differential and solids concentration	Effective in reducing sludge volumes as compared to traditional inorganic chemistries; membrane compatible
Gardo Pure WT 2083	All organic liquid solution	Sludge reduction, up to 80% more volume than liquid alum	Satisfactory results can be obtained when the product is diluted 20:1 prior to use	Partially or often totally replaces alum, ferric, lime or other inorganic coagulants, reducing sludge volume for disposal; effective over very wide pH ranges; produces a larger floc that settles faster with less pinfloc and carryover in the effluent
Gardo Pure WT 2084	Liquid, iron-based polymer, high molecular weight	Primary coagulant or metal precipitant/polishing solution; can be applied for paint detackification	Dosages will vary depending upon charge neutralization demand; effective on zinc and nickel containing wastewaters	Forms “microfloc” at pH 2–8; promotes rapid settling and dense floc formation
Gardo Pure WT 2085	Liquid solution	Sludge reduction, up to 80% more volume than liquid alum	Completely miscible, pH 4–7	Effective in potable water clarification, oily wastewater demulsification, secondary clarification in activated sludge systems
Gardo Pure WT 2086	Liquid, all inorganic, mixture of Al and Ca species	Primary coagulant or oily wastewater coagulant; membrane compatible	Dosage: 50–300 ppm for primary coagulant and 50–10,000 ppm for oily wastewater	Effective in reducing solids; completely inorganic in composition making it ideal for membrane filtration
Gardo Pure WT 2087	Liquid, alum-inorganic, metal precipitant solution	Primary coagulant or metal precipitant, polishing solution	Dosage: 100–300 ppm for primary coagulant and 10–100 ppm for polishing	Does not form metal sulfides; membrane compatible; very high affinity for oil and grease
Gardo Pure WT 2088	Unique Al/Ca/Cationic polymer containing liquid, reacted product	Neutralization of ionic charge differentials, complex chelating agents and absorption of oil and grease	Dosage: 50–1,000+ ppm	Feed as a concentrate; unique, versatile formula for metal solids removal
Gardo Pure WT 2089	Liquid solution	Sludge reduction, up to 80% more volume than liquid alum	Satisfactory results can be obtained when the product is diluted 20:1 prior to use	Effective in potable water clarification, oily wastewater demulsification, sand secondary clarification in activated sludge systems

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ANIONIC POLYMERS (FLOCCULANTS)				
Gardo Pure WT 3021	Liquid, emulsified, concentrate	Flocculates metal hydroxides; a concentrate for maximum efficiency	Dosage: A 0.1% solution as 400 milliliters per 100 gallons of make-up water; 32% charge density; add at 2–10 ppm	Will react quickly to flocculate metal hydroxides providing immediate settling in clarifiers and holding basins
Gardo Pure WT 3022	Liquid, polyelectrolyte hydrated form	Flocculates metal hydroxides and neutralized waste solids solutions	Dosage will range from 20–200 ppm; 40% charge density; can be diluted at any percentage	Liquid anionic polyelectrolyte that will react between pH 7–12 to rapidly form dense floc in clarifiers and holding basins
Gardo Pure WT 3023	Powder, polyelectrolyte	Flocculates metal hydroxides and neutralized solutions	Dosage: A 0.1 to 0.15% solution as 0.8 to 1.6 lbs. per 100 gallons of make-up water; 40% charge density; add at 2–15 ppm	Polymer that will react between pH 7–12 to form a dense hydroxide floc in clarifiers and holding basins
COOLING TOWER				
Gardo Pure WT 6061	Liquid, corrosion scale inhibitor for closed loop water systems	Controls scale and corrosion in hot water and chiller water closed loop water systems	Molybdate-based; dosage: 1,000–2,000 ppm	State-of-the-art closed loop system formulation that combines dispersants with corrosion inhibitors. Environmentally friendly
Gardo Pure WT 6062	Liquid, corrosion scale inhibitor for cooling towers	Controls scale and corrosion in open cooling water systems	Organic	Designed for open water systems exposed to oxygen; Used for 1.5 LSI. Environmentally friendly
BOILER WATER TREATMENTS				
Gardo Pure WT 1020	Polymer-based; Liquid scale and corrosion dispersant, all organic formula	Designed for maximum dispersion — to be used as the internal treatment for larger boilers and boilers with heavy deposition	Dosage: 100–400 ppm; use 400 ppm for heavily fouled (scaled) systems	Complete internal scale and corrosion dispersant; must use a separate oxygen scavenger and a condensate treatment
Gardo Pure WT 1027	Liquid scale and corrosion, all-in-one drum formulation	Designed for plants with periodic hardness or elevated alkalinity in feed water make-up	Dosage: 50–200 ppm; internal organic phosphate level 2–10 ppm	Complete scale, corrosion, oxygen scavenging, and condensate return neutralization
Gardo Pure WT 1041	Liquid-based oxygen scavenger	Designed to control feed water sulfite levels at 20–60 ppm per ASTM Standards	Add at 30 ppm per every 1 ppm of feed water oxygen; boiler internal sulfite is controlled to 20–60 ppm per ASTM Standards	Complete oxygen scavenging of feed water and boiler internals; ideal for systems with iron-based corrosion
Gardo Pure WT 1063	Liquid condensate neutralization treatment DEAE-based, multi-functional for short, middle, and long return line runs	Designed to control condensate return pH buffering to 7–10 pH units	Add at 4 ppm per every 1 ppm of feed water alkalinity; control condensate return at 7–10 pH	Provides for complete carbonic acid neutralization of return lines
Gardo Pure WT 1068	Liquid condensate neutralization treatment; triple amine formula; multi-functional for short, middle, and long return line runs	Designed to control condensate return pH buffering to 7–10 pH units	Add at 6 ppm per every 1 ppm of feed water alkalinity; control condensate return at 7–10 pH	Provides for complete carbonic acid neutralization of return lines

**Check with product manager or Chemetall Environment, Health, and Safety for state registration.*

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METAL PRECIPITANTS				
Gardo Pure WT 4075	Liquid, inorganic sulfide, heavy metal precipitant; Main coagulant or polishing agent to existing systems	Precipitates and removes heavy metals from wastewater; complexes heavy metals down to <0.5 ppm levels	pH 13–14 (concentrate), always add above a pH level of 8.0; dosage is based upon the metal loading of wastewater	Removes many heavy metals from spent solution including zinc, iron, nickel, copper, cadmium, lead, and aluminum
Gardo Pure WT 4078	Liquid, organic, heavy metal precipitant	Precipitates and removes heavy metal from wastewater systems	Can be used at any pH from 2–14	Removes heavy metals from wastewater systems, high affinity for copper, lead, and nickel ions
DEFOAMING AGENTS				
Gardo Pure WT 8477	Liquid solution	A versatile in-process foam control agent during the polymerization reaction and the stripping process of latex	May be added to the polymerization kettle or to the stripping operation. The addition level depends on the individual process and polymer. An initial trial range level of 0.01–0.1% on a total weight basis of the latex is recommended	Foam control agent composed of a proprietary blend of mineral oil, silica derivatives and surface active compounds designed to control foam in a variety of industrial processes
Gardo Pure WT 8479	Viscous liquid	Quick-dispersing, hydrocarbon oil-based antifoaming agent, designed for use where immediate foam-control action is wanted	Readily disperses in aqueous systems and develops its foam-control action rapidly	Designed for use in aqueous systems where foam must be controlled by chemical means, and where standard defoamers do not exhibit adequate endurance under high-temperature conditions

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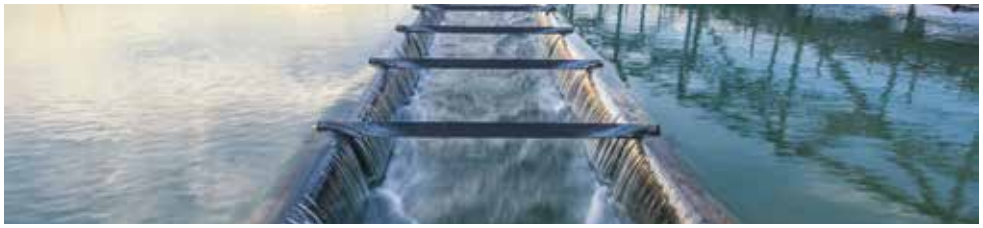

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- Increase effluent quality
- Meet discharge limitations
- Minimize sludge

Increase productivity

- Lower operational cost
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