

WaterCare Process catalogue

Version 6

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ANIONIC FLOCCULANT

Characteristics	Process Name	Description / Key Features	Operation parameters (dosage of application)	Ecology
<p>Anionic Powder Polymer</p> <p>100% active polymer</p> <p>Charge density: 40%</p>	OMEGA AP-2040	<p>Flocculation of neutralized solids.</p> <p>Maximum use-cost applications</p>	<p>Prepare at a 0.12% solution.</p> <p>5 to 25 ppm</p>	Less packaging material, less transport cost
<p>Anionic Liquid Polymer</p> <p>A Hydrated solution</p> <p>'Ready-to-use'</p> <p>Charge density: 40%</p>	OMEGA AP-2140	<p>Flocculation of neutralized solids.</p> <p>Ready-to-use formula for small systems</p>	<p>Prepare at a 10% to 100% solution.</p> <p>100 to 200 ppm</p>	
<p>Anionic Liquid Polymer</p> <p>Emulsion concentrate</p> <p>Charge density: 32%</p>	OMEGA AP-2210	<p>Flocculation of neutralized solids.</p> <p>For large systems</p>	<p>Prepare at a 0.1% Solution.</p> <p>0.5 to 15 ppm</p>	Less packaging material, less transport cost

ANTIFOAM

Characteristics	Process Name	Description / Key Features	Operation parameters (dosage of application)	Ecology
Silicone with dispersant for maximum foam kill	OMEGA SAF-10	A multi-purpose application foam control agent	Apply at full strength or at any desirable dilution. 20 to 100 ppm	Silicone base provides minimal organic loading. A low contribution to BOD*/COD*
All organic formulation of a non-silicone and non-hydrocarbon nature	OMEGA OAF-88	For use when silicone and/or hydrocarbons are prohibited in use	Apply at full strength. 100 to 200 ppm	All organic in composition, no hydrocarbons Low contribution to BOD*/COD*
All organic hydrocarbon based formulation	OMEGA OAF-100	Ideal for large systems requiring a rapid foam removal	Apply at full strength. 25 to 200 ppm	
All organic hydrocarbon based formulation	OMEGA TE-11 (EU)	Ideal for large systems requiring a rapid foam removal	Apply at full strength. 25 to 200 ppm	

INORGANIC COAGULANT – CATIONIC

Characteristics	Process Name	Description / Key Features	Operation parameters (dosage of application)	Ecology
Coagulant inorganic A mixed chloride based solution	OMEGA C-3112	Multiple cation-based formulation neutralizes a wide range of wastewater solutions	Applied to wastewater collection and neutralization tanks. 50 to 1000 ppm.	High affinity for phosphorus removal
Coagulant inorganic A reacted aluminium solution with proprietary metal precipitant	OMEGA C-3114	Metal Finishing and Metal Processing wastewaters. Highly effective for both metal and organic removal	Applied to wastewater collection and neutralization tanks. 50 to 1000 ppm	THE product of choice for systems required to meet toxicity criteria.
Coagulant inorganic A reacted aluminium – calcium solution	OMEGA C-3115	Metal Finishing and Metal Processing wastewaters. Excellent for organic acid neutralization and treatment of trivalent passivates	Applied to wastewater collection and neutralization tanks. 100 to 1000 ppm	High affinity for organic acid containing wastewaters.

INORGANIC COAGULANT – CATIONIC POLYMER BLEND

Characteristics	Process Name	Description / Key Features	Operation parameters (dosage of application)	Ecology
<p>Iron – cationic polymer blend</p> <p>Ferric form with cationic polymer</p>	OMEGA BP-4123	<p>For metallic, organic, and suspended solids control.</p> <p>Excellent for rapid solids neutralization and conditioning. Produces a dense and rapidly settled floc formation</p>	<p>Usually applied at full strength. Can also be diluted.</p> <p>50 to 1000 ppm</p>	High affinity for phosphorus and oil & grease removal.
<p>Aluminum – cationic polymer blend</p> <p>Alum form with cationic polymer</p>	OMEGA BP-4145	<p>For metallic, organic, and suspended solids control.</p>	<p>Usually applied at full strength but can be diluted.</p> <p>50 to 1000 ppm</p>	
<p>Aluminum, Calcium and cationic polymer blend</p> <p>Chloride form</p>	OMEGA BP-4188	<p>For metallic, organic, and suspended solids control.</p>	<p>Apply at full strength.</p> <p>50 to 1000 ppm</p>	High affinity for phosphorus and oil & grease removal.

■ CATIONIC POLYMER

Characteristics	Process Name	Description / Key Features	Operation parameters (dosage of application)	Ecology
<p>Medium molecular weight EPI-DMA based polymer (quaternary amine)</p> <p>Charge density: high</p>	OMEGA CP-1154	Improves solids neutralization and density	<p>Usually diluted to a 10% solution before application.</p> <p>Metal finishing application dosage: 20 to 100 ppm</p>	Can be used to split oil from cleaners extending cleaner life.
<p>High molecular weight</p> <p>Polyamine based polymer</p> <p>Charge density: high</p>	OMEGA CP-1162	Surfactant neutralization of wastewaters	<p>Applied at full strength but can be diluted as required.</p> <p>Metal finishing application dosage: 50 to 100 ppm</p>	Surfactants can be denatured in some applications lowering BOD*/COD* effluent demand.
<p>Very high molecular weight Polyamine based polymer</p> <p>Charge density: very high</p>	OMEGA CP-1169	A strong charge neutralizer for aggressive wastewaters	<p>A viscous material – always dilute to a 5% to 10% solution before use.</p> <p>Metal finishing application dosage: 50 to 100 ppm</p>	

METAL PRECIPITANT

Characteristics	Process Name	Description / Key Features	Operation parameters	Ecology
DMTC-based Dimethyldithio- carbamate based metal precipitant	OMEGA MP-5140	<p>Metal sulfide formation to assist in metal precipitation</p> <p>Metal reduction to <1.0 ppm range</p> <p>High affinity for copper and nickel ions. Use at any pH range.</p>	<p>Applied at pH levels of 1 to 12 for metal complexing.</p> <p>Reaction time of 30 minutes is desired</p>	
Specialty blend: Inorganic sulfide- DMTC mixture	OMEGA MP-5152	<p>Specialty blend for enhanced metal precipitation</p> <p>Metal reduction to <0.5 ppm range</p> <p>High affinity for zinc and nickel ions. Must be applied above pH 8.0 in application</p> <p>Excellent for Zn/Ni alloy applications</p>	<p>Applied at pH levels of 7 to 12 for metal complexing.</p> <p>Reaction time of 30 minutes is desired</p>	

Characteristics	Process Name	Description / Key Features	Operation parameters	Ecology
<p>Inorganic sulfide-based</p> <p>Inorganic sulfide buffered with an alkaline base</p>	<p>OMEGA MP-5165</p>	<p>Metal sulfide formation to assist in metal precipitation</p> <p>Metal reduction to <0.5 ppm range</p> <p>High affinity for zinc and chrome ions. Must be applied above pH 8.0 in application</p>	<p>Applied at pH levels of 8 to 12 for metal complexing.</p> <p>Reaction time of 30 minutes is desired</p>	
<p>Inorganic sulfide-based</p> <p>Inorganic sulfide buffered with an alkaline base</p>	<p>OMEGA MP-5177 (EU)</p>	<p>Metal sulfide formation (stronger than MP-5165).</p> <p>Metal reduction to <0.5 ppm range</p> <p>High affinity for zinc and chrome ions. Must be applied above pH 8.0 in application</p>	<p>Applied at pH levels of 8 to 12 for metal complexing.</p> <p>Reaction time of 30 minutes is desired</p>	

* BOD: Biological Oxygen Demand / COD: Chemical Oxygen Demand

RESIN CLEANERS / RO MEMBRANE CLEANERS /RO DISPERSANTS

Characteristics	Process Name	Description / Key Features	Operation parameters	Ecology
Alkaline liquid Resin and RO Membrane cleaning agent.	OMEGA SP-8300	Cleans Resin / RO Membranes of organic foulants and colloidal silts.	See Process Flash. Dosage of application: 1.5% to 4.0% by weight.	Keeps resins and RO membranes at optimum condition.
Acidic liquid Resin and RO Membrane cleaning agent.	OMEGA SP-8200	Cleans Resin / RO Membranes of Metal Oxides and Hydroxides. Scale deposits of carbonates are also removed.	See Process Flash. Dosage of application: 0.75% to 4.0% by weight.	Keeps resins and RO membranes at optimum condition.
A polyacrylic based formulation for RO Membrane dispersion of scale forming deposits.	OMEGA TH-7120	Applied as a continuous treatment and conditioner of RO Membranes for increased throughput (flux rates).	See TDS sheet. Dosage is applied based upon make-up water hardness. Usually a dosage of 10 ppm to 30 ppm is used as a continuous feed.	Improves RO membrane operation cycles, thereby decreasing regenerations and cleaning cycles.

GENERAL PURPOSE CLEANERS / DISINFECTANTS / DEODORIZERS

Characteristics	Process Name	Description / Key Features	Operation parameters	Ecology
Quaternary based Cleaning agent Concentrate	OMEGA AQ-6125	General Purpose Cleaner Concentrate for any application Quaternary based formula at high strength	See Process Flash. Dosage is highly variable from 0.06% or 600 ppm (wiping) to 10% 100,000 ppm for (heavy soils) Wipe / Mop / Spray Use in floor cleaning machines	Quaternary based and provides all the benefits of an effective cleaner in this family of surfactants.
Quaternary based Cleaning agent And Deodorizer RTU "Ready-to-Use"	OMEGA AQ-6126 RTU	General Purpose Cleaner RTU « Ready-to-Use » for any application. Quaternary based formula with sweet smell as deodorizer as well.	See Process Flash. Dosage of application: Apply as ready to use or any dilution rate as needed. Wipe / Mop / Spray Use in floor cleaning machines	Quaternary based and provides all the benefits of an effective cleaner in this family of surfactants. Orange in color Sweet smell like vanilla as a deodorizer.
Quaternary based Cleaning agent US EPA Approved as a Disinfectant Cleaner Deodorizer RTU "Ready-to-Use"	FOSTER First Defense 40-80	COVENTYA is a distributor for FOSTER FD 40-80 US EPA Approved Disinfectant against COVID-19	See Process Flash. Dosage of application: Apply as ready to use or any dilution rate as needed. Wipe / Mop / Spray Use in floor cleaning machines	Quaternary based and provides all the benefits of an effective cleaner in this family of surfactants. Disinfection, Cleaning and Deodorizing use effective.

APPLICATION GUIDE: NEUTRALIZATION

The following should be used as a 'general guideline' of product affinity for various types of General Metal Finishing (GMF) and Metal Processing (MF) applications.

Product affinity	Passivates	Zn	Ni	Cu	Enhanced metal removal	Phosphate	Surfactants	Improved solids agglomeration	Chelated solutions
C-3112	X					X		X	
C-3114	X	X	X		X		X	X	X
C-3115	X			X		X			X
BP-4123		X	X		X	X		X	
BP-4145				X	X			X	
BP-4188	X	X		X	X	X	X	X	X
CP-1154					X			X	
CP-1162					X		X	X	
CP-1169								X	
MP-5140			X	X	X				X
MP-5152		X	X	X	X			X	X
MP-5165		X		X	X			X	X

APPLICATION GUIDE: FLOCCULATION

The following should be used as a 'general guideline' of product affinity for flocculation of neutralized and conditioned solids.

Product affinity	Smaller applications <5,000 US Gallons / day <18,000 L / day	larger applications >5,000 US Gallons / day >18,000 L / day	Product dilution for application	Product dilution requirements
AP-2140: prepared liquid	X		Not required	If desired: 10%
AP-2040: powder		X	Yes	0.12%
AP-2210: emulsion		X	Yes	0.1%