PILOT® CHEMICAL COMPANY

Leadership. Service. Flexibility. Success. **We're going further®.**

Product Catalog

PILOT® CHEMICAL COMPANY

Leadership. Service. Flexibility. Success. **We're going further®.**

Charting Your Course with Innovative Chemical Solutions

Pilot's tailored solutions have spanned the globe for more than 70 years. A commitment to unique chemical processes and efficient manufacturing is our hallmark. Pilot's industry insight allows us to create surfactants designed to maximize your opportunities in new product development.

With strategically located facilities, we provide customized manufacturing solutions, and our expert team of technical specialists gives you rapid access to knowledgeable and reliable assistance at all stages of production. In addition, Pilot's well-established distributor network has built a record of consistent, on-time delivery.

Time after time, our custom programs succeed at delivering high yields. Pilot's leading-edge approach, personalized to each customer's needs, helps you achieve success.

We are a dynamic, market-focused and environmentally conscious company, offering the comprehensive chemical dexterity you expect from an industry leader. Whether you're producing detergents, personal care products, synthetic rubber, lubricants or other products, you can depend on Pilot to help lead you to success.

Pilot's unique industry insight allows us to create surfactants designed to maximize your opportunities in new product development.

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You can rely on Pilot for the highest quality chemistries in the industry, coupled with an unwavering commitment to the environment.

Household, Industrial, & Institutional

Alkyl Ether Sulfates	Calfoam® ammonium and sodium laureth sulfates are biodegradable anionic surfactants that have great cleansing properties with water hardness tolerance. They are excellent foamers with high flash foam and high viscosity response using amides, betaines and salts.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calfoam® ES-301	Sodium Laureth Sulfate (1 Mole EO)	Liquid/26%	• Can replace sulfonates in most HI&I formulations. • Sodium laureth sulfates are compatible with high pH formulations. • Higher moles of EO increase mildness and flash foaming properties. • Calfoam® ES-302HS has high viscosity and ES-302HV has very high viscosity. • Calfoam® ES-603 contains ethanol solvent. • Calfoam® ES-702 and ES-703 offer cost savings over lower active products, but require special handling and storage capabilities.	Laundry, Dish Wash, Car Wash, other HI&I Cleaners
Calfoam® ES-302	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%		
Calfoam® ES-302HS	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%		
Calfoam® ES-303	Sodium Laureth Sulfate (3 Mole EO)	Liquid/28%		
Calfoam® ES-562	Sodium Laureth Sulfate (2 Mole EO)	Liquid/55%		
Calfoam® ES-603	Sodium Laureth Sulfate (3 Mole EO)	Liquid/60%		
Calfoam® ES-702	Sodium Laureth Sulfate (2 Mole EO)	Liquid/70%		
Calfoam® ES-703	Sodium Laureth Sulfate (3 Mole EO)	Liquid/70%		
Calfoam® ALS-30	Ammonium Lauryl Sulfate	Liquid/30%	Calfoam® ALS-30 should be used with formulations having a pH of 7.0 or below.	Laundry, Hand Dish Wash, General Purpose Cleaner, Industrial Degreaser, Pot and Pan Cleaner, Car Wash Products, Carpet Cleaners
Calfoam® TLS-40	TEA Lauryl Sulfate	Liquid/40%	Calfoam® TLS-40 offers higher activity and increased clarity at lower temperatures and builds excellent viscosity and detergency properties with other surfactants.	Laundry, Hand Dish Wash, General Purpose Cleaner, Industrial Degreaser, Pot And Pan Cleaner, Car Wash Products, Carpet Cleaners

Household, Industrial, & Institutional

Alkanolamides	Pilot's Alkanolamides are biodegradable, naturally derived, 100% active 1:1 and 2:1 amides which provide foam boosting, foam stabilization and viscosity building properties. They also offer multiple lubrication and emulsification characteristics.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calamide® C	Cocamide DEA	Liquid/100%	Calamide® C is a clear 1:1 super amide which is widely used in numerous HI&I formulations for building and stabilization of viscosity and foam.	Laundry, Hand Dish Wash, General Purpose Cleaner, Industrial Degreaser, Pot And Pan Cleaner, Car Wash Products, Carpet Cleaners
Calamide® CW-100	Cocamide DEA	Liquid/100%	Calamide® CW-100 is a 2:1 alkanolamide with a considerable amount of free alkali which increases solubility and detergency.	
Calamide® MC	Cocamide MEA	Flake/100%	Calamide® MC is a 1:1 super amide with some emollient and lubrication characteristics. Requires heat to bring product to a liquid state.	

Thickeners	DEA alternative viscosity building thickeners offering naturally derived, multi-functional performance in a wide range of cleaning applications			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Masamide® REP	DEA Alternative - Surfactant Blend	Liquid/36%	Surfactant blend; characterized by very good wetting, dispersing, detergency, foaming, coupling, hydrotrope, and surface tension reduction properties for increased soil removal & emulsification; excellent solubility, viscosity & stability in alkaline & high electrolyte systems; used as a standalone surfactant or with amphoteric, nonionic, cationic & anionic surfactants.	Liquid Detergents, Household and Industrial Cleaners
Masamide® R-4	PEG-4 Rapeseedamide	Liquid/90%	Naturally plant derived PEG-4 rapeseedamide in water; unique thickening; uniquely natural compliment for use in products as a multi-functional replacement for Cocamide DEA while being Nitrosamine, allergen, and DEA alternative; Eco-friendly label with high biodegradability and low aquatic toxicity; mild surfactant; nonionic emulsifier, foam booster & stabilizer.	Household and Industrial Products

Household, Industrial, & Institutional

Sulfonates and Sulfonic Acids	Pilot's sulfonates produce economical formulations with superb cleansing, high foam volume, great flash foam and nice viscosity characteristics in a variety of HI&I applications. They are fully compatible with anionic, nonionic, and amphoteric surfactants.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calsoft® AOS-1245	Sodium C12 Alpha Olefin Sulfonate	Liquid/45%	Calsoft® AOS-1245 offers excellent hard water and electrolyte stability, increased low temperature stability, excellent detergency, wetting, and hydrotroping in HI&I formulations.	Laundry, Hand Dish Wash, General Purpose Cleaner, Industrial Degreaser, Pot And Pan Cleaner, Car Wash Products, Carpet Cleaners
Calsoft® AOS-40	Sodium C14-16 Alpha Olefin Sulfonate	Liquid/40%	Calsoft® AOS-40 offers excellent detergency, wetting and foaming characteristics.	
Calsoft® AOS-FS	Sodium C14-16 Alpha Olefin Sulfonate	Liquid/43%	Calsoft® AOS-FS is specially designed for improved low temperature handling properties and increased hydrotroping and detergency. Also has a great freeze-thaw profile.	
Calsoft® F-90	Sodium Linear Alkyl Benzene Sulfonate	Flake/90%	Calsoft® F-90 is a high active low color sodium alkyl benzene sulfonate flake used for wet and dry compounding of HI&I products. Perfect for ultra concentrated and high activity products.	Laundry, Dish Wash, All-Purpose Cleaner, Hard Surface Cleaner, Floor Cleaner, Dairy Cleaner, Wax Stripper, Degreaser, Car Wash
Calsoft® L-60	Sodium Linear Alkyl Benzene Sulfonate	Paste/60%	Calsoft® L-60 has excellent detergency and high-foaming properties. It contains a hydrotrope to aid in clarity.	
Calsoft® L-50 Slurry	Sodium Linear Alkyl Benzene Sulfonate Slurry	Slurry/50%	The Calsoft® L-50 Slurry sulfonate does not contain a hydrotrope, and therefore, has a lower clarity and higher viscosity.	Laundry, Dish Wash, All-Purpose Cleaner, Hard Surface Cleaner, Floor Cleaner, Dairy Cleaner, Wax Stripper, Degreaser, Car Wash
Calsoft® LAS-99	Linear Alkyl Benzene Sulfonic Acid	Liquid/97%	Calsoft® LAS-99 is a high 2-phenyl product that provides copious and stable foam with outstanding detergency, wetting, rinsability and grease cutting ability when neutralized with a suitable alkali.	
Calsoft® LPS-99	Linear Alkyl Benzene Sulfonic Acid	Liquid/97%	Calsoft® LPS-99 is a low 2-phenyl product with slightly lower water solubility than LAS-99 when neutralized with a suitable alkali.	
Calimulse® PRS	Isopropylamine Linear Alkyl Benzene Sulfonate	Liquid/93%	Calimulse® PRS offers great detergency, emulsification and oily and particulate soil removal characteristics. It is soluble in water and soluble or dispersible in organic solvents like ethyl/isopropyl alcohol, and mineral spirits. Produces crystal clear d'limonene microemulsions in water and is an excellent o/w emulsifier. Perfect for dry cleaning, 2X/3X laundry, and d'limonene cleaner products.	Laundry, Dish Wash, All-Purpose Cleaner, Hard Surface Cleaner, Floor Cleaner, Dairy Cleaner, Wax Stripper, Degreaser, D'limonene Microemulsions, Car Wash
Calsoft® P-85	Sodium Linear Alkyl Benzene Sulfonate	Flake/85%	Calsoft® P-85 is a high active sodium alkyl benzene sulfonate flake with a lower solubility than Calsoft® F-90, perfect for HI&I applications requiring extended release detergency. Can be wet or dry compounded and has good anti-caking features.	Laundry, Dish Wash, All-Purpose Cleaner, Hard Surface Cleaner, Floor Cleaner, Dairy Cleaner, Wax Stripper, Degreaser, Car Wash
Calsoft® T-60	Triethanolamine Linear Alkyl Benzene Sulfonate	Liquid/60%	Calsoft® T-60 is a clear, odorless sulfonate with good detergency and excellent foam properties in soft and hard water environments, very stable with low temperature applications.	

Sulfonates and Sulfonic Acids	Continued			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Pilot® PTSA-65	p-Toluene Sulfonic Acid	Liquid/65%	Pilot® PTSA-65 is a high-quality clear toluene sulfonic acid with consistent performance.	Hand Dish Wash, Car Wash, Hard Surface Cleaner, Laundry, Institutional and Industrial Cleaners
Pilot® SXS-40	Sodium Xylene Sulfonate	Liquid/40%	Pilot® SXS-40 is a widely-used hydrotrope in many HI&I applications; effectively reducing viscosity, increasing solubility and improving clarity. It imparts dispersing and coupling properties in many formulations.	

Diphenyl Oxide Disulfonates and Disulfonic Acids	Pilot's Calfax® line offers both linear and super stable branched products, which are APEO alternative, VOC alternative and halogenated solvent alternative and can find uses in a variety of applications.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calfax® 10L-45	Sodium C10 Linear Diphenyl Oxide Disulfonate	Liquid/45%	• Multifunctionality – surfactant and hydrotrope in one. • Alkali, acid, electrolyte, bleach and peroxide stability • Non-streaking and spotting • Viscosity reducers • Thermal stability • Calfax® 10L-45 offers low streaking properties and solubilizes phenolic germicides in disinfectant formulations. It provides excellent rinsability and good coupling performance. • Calfax® 10LA-75 allows users to neutralize with the base of their choice, generating unique products with the same Calfax performance features • Calfax® 16L-35 offers outstanding detergency, emulsification characteristics and a very low CMC. • Calfax® DB-45 produces high foam and extremely stable emulsions in many HI&I applications. It provides great rinsability. • Calfax® 6LA-70 utilizes a low carbon chain which presents excellent hydrotroping properties and rinses easily from surfaces. • Calfax® DBA-70, when neutralized with alkali of choice, produces high foam and extremely stable emulsions in many HI&I formulations.	Glass Cleaner, Bath Cleaner, Kitchen Cleaner, Concrete Cleaner, Industrial And Institutional Laundry, Pot And Pan Cleaner, Car Wash, Floor Cleaner, Hard Surface Cleaner, Auto Dish Gel, Ultra and Compact Laundry Detergent
Calfax® 16L-35	Sodium C16 Linear Diphenyl Oxide Disulfonate	Liquid/35%		
Calfax® DB-45	Sodium C12 Branched Diphenyl Oxide Disulfonate	Liquid/45%		
Calfax® 6LA-70	C6 Linear Diphenyl Oxide Disulfonic Acid	Liquid/72%		Concentrated Home Laundry, Glass Cleaner, Bath Cleaner, Kitchen Cleaner, Concrete Cleaner, Industrial And Institutional Laundry, Pot And Pan Cleaner,Car Wash, Floor Cleaner, Hard Surface Cleaner, Auto Dish Gel
Calfax® DBA-70	C12 Branched Diphenyl Oxide Disulfonic Acid	Liquid/71%		

Household, Industrial, & Institutional

Performance Concentrates	Calsuds® products are economical concentrates that require minimal additional ingredients to produce a desired cleaner/ detergent formulation with excellent detergency and emulsification properties. These concentrates serve as bases for a wide variety of industrial and institutional applications. Pilot can custom-manufacture performance concentrates to meet your specifications.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calsuds® 81	Proprietary Concentrated Detergent Blend	Liquid/60%	Calsuds® 81 is a completely balanced detergent base with excellent detergency, great grease cutting, emulsification, wetting, foaming, flash foam and handling properties.	Heavy Duty Cleaner, Pot And Pan Cleaner, Laundry, Hard Surface Cleaner, Car Wash, Dish Wash Formulations, All Purpose Cleaner
Calsuds® A	Proprietary Concentrated Detergent Blend	Liquid/50%	Calsuds® A is an anionic and nonionic surfactant concentrate which can be used "as is" or compounded with other ingredients. Imparts excellent detergency, oily and particulate soil removal, grease cutting and foaming characteristics.	Manual Dish Wash, General Purpose Cleaners, Car Wash Products, Tub/Tile Cleaner, Laundry
Calsuds® CD-6	Proprietary Modified Coconut Diethanolamide	Liquid/100%	Calsuds® CD-6 is a 100% active, high-alkalinity base with excellent emulsifying, viscosity-building, detergency and foam-stabilizing properties. It is ideal for high-viscosity and economical formulations.	Waterless Hand Cleaner, Laundry Detergent, Manual Dish Wash, Car Wash, Degreasers

Performance Blends	CalBlend® products are pre-formulated performance blends. Simply mix with water to the preferred active level, then add preservative, fragrance, and dye to obtain a finished product ready for packaging. These products offer formulators convenience and reduction of production errors and inventory.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
CalBlend® DF	Sodium Laureth Sulfate, Sodium Lauryl Sulfate, Cocamidopropyl Betaine, Cocamide MIPA	Liquid/30%	DEA alternative blend that produces formulations which easily build viscosity levels, while yielding premium instant flash foam. CalBlend® DF is environmentally friendly, VOC alternative, and solvent alternative	Liquid Dish Detergents and Laundry Detergents
CalBlend® ECO-1	Sodium Lauryl Sulfate, Sodium Laureth Sulfate, Cocamide MEA, Cocamidopropyl Betaine	Liquid/35%	Environmentally and economical friendly performance blend that is biodegradable. Offers excellent cleansing, viscosity, flash foam, luxurious lather and skin mildness characteristics.	Mild HI&I Cleaners, Liquid Dish Detergents, Laundry Detergents
CalBlend® Mild	Sodium Laureth Sulfate, PEG-80 Sorbitan Laurate, Lauramidopropyl Betaine, PEG-150 Distearate	Liquid/30%	Ultra-mild optimized blend of gentle foaming and cleansing agents with excellent viscosity characteristics, contains no solvents, is naturally derived, DEA alternative, and VOC alternative	Mild Dish Wash & Laundry Detergents for Sensitive Skin and Baby Product Use
CalBlend® PC	Sodium C14-16 Olefin Sulfonate, Cocamidopropyl Betaine, Cocamide MIPA	Liquid/30%	Dioxane alternative, DEA alternative performance blend that offers excellent viscosity building to produce a creamy lather and soft after-feel.	Shampoo, body wash, liquid hand soap, pet shampoo, liquid dish and laundry detergents
CalBlend® PSX	Sodium Laureth Sulfate, Sodium Lauryl Sulfate, Glycol Stearate, Cocamidopropyl Betaine, Cocamide MIPA, PEG-46M	Liquid/30%	DEA alternative, solvent alternative, and VOC alternative concentrated blend of surfactants specially formulated to produce rich lathering pearlescent personal care products.	Shampoo, body wash, hand soap, pet shampoo

UV Protectants	Ultraviolet light absorbers for use in a range of surface cleaning and protection formulations.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Masurf® UV-150	Benzotriazole Based Products UV Absorber for Textiles and Hard Surfaces	Liquid/55%	Self-emulsible Ultraviolet Light Absorber for aqueous systems, designed to impart UV protection to fabrics and hard surfaces; utilizing proven benzotriazole UV chemistry with Mason StayClean™ advanced microemulsion technology, UV-150 is easy to use and highly efficient; readily micro-emulsible in cold water with minimal stirring, creating very stable, clear, small particle size (<50nm) microemulsion for uniform dispersion and coverage; use UV-150 in nonionic, anionic, amphoteric and weakly cationic systems; Non-Flammable; does not contain or release ozone depleting chlorofluorocarbons (CFC's), alkylphenol ethoxylates (APE's), and does not release formaldehyde.	Carpet Shampoos, Extraction Cleaners and Spotters, Upholstery Shampoos, Steam Cleaners and Treatments, Apparel Finishes and Treatments

Polymers	Pilot's functionalized polymers are designed to impart soil resistance, cleaning, and surface protection in a variety of applications			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Masurf® SP-535A	Anionic Polymers StayClean™ Anti-Soiling Agents	Liquid/40%	Functionalized anionic polymers designed to impart soil resistance, anti-soil redeposition, soil release and stain blocking properties to carpet & upholstery cleaner formulations. Treated surfaces repel dry soil, and resist stains. Use Masurf® SP-535, SP-535A to impart superior dry soil resistance with soil release. Masurf® SP-535 and SP-535A are Nonflammable, and do not contain or release ozone depleting chlorofluorocarbons (CFC's), alkylphenol ethoxylates (APE's), and/or formaldehyde.	Carpet Shampoos, Extraction Cleaners and Spotters,Upholstery Shampoos and Steam Cleaners.
Masurf® SP-925	Anionic Polymers StayClean™ Hard Surface Protector	Liquid/25%	Functionalized "smart" polymer designed to impart cleaning with surface protectant and soil resistance and release properties to treated surfaces, optimized for Surface Protection of bathroom, shower and related surfaces subject to soap-film and similar soils; effective over the pH range <1 to 14; when used on hard surfaces such as glazed ceramic tile, shower doors, plastic, chrome, fiberglass, glazed porcelain, synthetic marble, painted surfaces, polished stone & glass, it will create an "invisible barrier" that repels soils and protects against build-up; used to also create highly hydrophilic surfaces that sheet water.	Household Products, Bathroom Cleaning, Anti-Fog Glass Cleaners and Spotless Car Wash Detergents

Household, Industrial, & Institutional

Cationic Surfactants	Available in a wide range of activity levels, Pilot's cationic surfactants find use in a variety of cleaning applications.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Maquat® FD-2003	Granular Floor Deodorizer	Solid Granular/100%	Manufactured from a special low dust process, ideal for broadcast application, easy to identify the light blue/green color as non-food ingredient for use in USDA inspected facilities, granules crush easily to release odor control ingredients and readily rinse cleanly into floor drains.	TSCA/CDSL listed granular cationic surfactant/urea floor deodorizer & treatment. Use in Meat, poultry, dairy & food processing establishments; effective odor control agent in moist environments. Wherever odor control can be a problem - commercial kitchens, trash & dumpster areas, loading docks & other food handling areas.
Maquat® C-2	Coco bis (2-hydroxyethyl) Methylammonium Chloride	Liquid/75%	Naturally plant derived coco bis (2-hydroxyethyl)methylammonium chloride in 2-propanol, or No-Flash propylene glycol, unique anti-static, dispersing, solubilizing and foaming properties used in many products.	Degreasers, Pine Oil and d-Limonene Cleaners, Vehicle Cleaners, Sanitation Products, Electroplating Bath Formulations, Textile Anti Stats, Water Based Degreasers, Household Cleaners
Maquat® C-15	Cocoalkylmethyl PEG-15 Ammonium Chloride	Liquid/95%	Naturally plant derived cocoalkylmethyl PEG-15 ammonium chloride, unique anti-static, dispersing, hydrotrope, solubilizing and foaming properties used in many products.	Degreasers, Pine Oil and d-Limonene Cleaners, Vehicle Cleaners, Corrosion Inhibitors, Electroplating Bath Formulations, Textile Anti Stats, Water Based Degreasers, Household Cleaners
Maquat® QSX -105 S	Stabilized Organosilane Quaternary Ammonium Compound	Liquid/5%	3-(trihydroxysilyl) propyldimethyl octadecyl ammonium chloride in a stabilized or aqueous dilution, for durable mold & mildew resistant finishing on textiles & related surfaces; effective protection of treated surfaces against odor, staining & discoloration associated with bacteria, fungi (mold & mildew) and algae.	Paper Production and Wood Treatment
Mason® CS 24M / CS 15M	"Fifth Generation" Quaternary Ammonium Blend	Liquid/50% Liquid/80%	TSCA/CDSL listed 80% and 50% active, naturally plant derived dialkyldimethyl ammonium chlorides and alkyldimethylbenzyl ammonium chlorides in a water/ethanol solution, for use in non-EPA/ Canadian registered biocide applications; non-registered version of Maquat® MQ-624M and MQ-615M; cationic surfactants have a multitude of uses: anti-foam, emulsifier, anti-stat, scour; the high purity of the starting material delivers a consistent, low color and odor, high performance product that can be differentiated into consistent, high value end-use products.	Carpet Extraction Cleaners, Degreasers, Pine Oil and d-Limonene Cleaners, Vehicle Cleaners, and Sanitation Products
Mason® CS-445 / CS-448	Didecyldimethyl Ammonium Chloride	Liquid/50% Liquid/80%	Naturally plant derived didecyldimethyl ammonium chloride for use as cationic surfactants in a wide range of applications: anti-foam, emulsifier, anti-stat, scour, corrosion inhibitors & clay stabilizers; characteristically low in color, low in odor and reliably consistent batch to batch; useful in increasing the cloud point of cationic/nonionic cleaning formulations while enhancing oil/lipid solubilizing performance; this product was made from a Palm Kernel oil source with greater than 90% biorenewable Carbon; the high purity of the starting material delivers a consistent, low color and odor, high performance product that can be differentiated into consistent, high value end-use products.	Carpet Extraction Cleaners, Degreasers, Pine Oil and d-Limonene Cleaners, Vehicle Cleaners, and Sanitation Products

Cationic Surfactants	Continued			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Mason® CS-125	Alkyldimethylbenzyl Ammonium Chloride	Liquid/50%	Alkyldimethylbenzyl ammonium chloride in a water solution, with an alkyl distribution of C12 67%, C14 25%, C16 7%, C18 1%, for use in non-EPA/Canadian registered applications; cationic surfactants and a multitude of uses.	Carpet Extraction Cleaners, Degreasers, Pine Oil and d-Limonene Cleaners, Vehicle Cleaners, and Sanitation Products
Mason® CS-425	Alkyldimethylbenzyl Ammonium Chloride	Liquid/50%	Alkyldimethylbenzyl ammonium chloride in a water solution, with an alkyl distribution of C12 40%, C14 50%, C16 10%, for use in non-EPA/Canadian registered applications; cationic surfactants have a multitude of uses.	Carpet Extraction Cleaners, Degreasers, Pine Oil and d-Limonene Cleaners, Vehicle Cleaners, and Sanitation Products
Mason® CS-428		Liquid/80%	Naturally plant derived alkyldimethylbenzyl ammonium chloride in a water/ethanol, or No-Flash water/ethylene glycol solution with an alkyl distribution of C14 50%, C12 40%, C16 10%, for use in non-EPA/Canadian registered applications; cationic surfactants have a multitude of uses: anti-foam, emulsifier, scour.	
Mason® CS-428EG		Liquid/80%		
Mason® CS EBC50/EBC80	Cationic Surfactant Blend	Liquid 50%/ Liquid 80%	Both contain a 50:50 blend of alkyl dimethyl benzyl ammonium chloride with an alkyl distribution of C14 50%, C12 40%, C16 10%, and alkyl dimethyl ethyl benzyl ammonium chloride with an alkyl distribution of C12 68%, C14 32%; EBC-50% contains no solvent; EBC-80% is in a water/ethanol solution; both are for use in non-EPA/Canadian registered applications; cationic surfactants provide positive deodorant action (not as a masking agent but as a chemical destroyer of noxious odors arising from non-organic sources as well as putrefactive processes); non-volatile, unaffected by freezing or high temperatures; no long term storage problems; easy to formulate into multi-purpose, one-step products to provide powerful cleaning and deodorizing action; not affected by pH or flammable solvents.	Cleaners and Deodorizers

Amine Oxides	Offering a wide range of naturally derived Amine Oxides that produce a mild, creamy lather, while providing excellent foam boosting and stabilizing characteristics as well as Bleach, Peroxide, Acid, and Alkali Stability			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Caloxamine® CPO	Cocamidopropylamine Oxide	Liquid/32%	Fully compatible with anionic, nonionic and amphoteric surfactants. It is bleach and peroxide stable, compatible with biocidal quats and provides excellent foam stability, copious foam, foam-boosting and mildness properties. It also offers tremendous emulsification and great viscosity-building characteristics.	Kitchen And Bath Cleaners, Laundry Detergents, Car Wash, Hand Dish Wash Detergent, Drain Cleaners, Carpet Shampoo, HI&I Cleaners
Caloxamine® LO	Lauramine Oxide	Liquid/30%	Provides outstanding foam volume, good foam stabilization, foam-boosting and grease cutting properties and offers great emulsification and viscosity-building characteristics.	Kitchen And Bath Cleaners, Laundry Detergents, Car Wash, Hand Dish Wash Detergent, Drain Cleaners, Carpet Shampoo, HI&I Cleaners

Amine Oxides	Offering a wide range of naturally derived Amine Oxides that produce a mild, creamy lather, while providing excellent foam boosting and stabilizing characteristics as well as Bleach, Peroxide, Acid, and Alkali Stability			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**

Household, Industrial, & Institutional

Macat® AO-8	Octyl Dimethylamine Oxide	Liquid/30% or Liquid/40%	Naturally plant derived octyl (C8) dimethylamine oxide in water, effective low foam wetting and coupling agent that is hypochlorite and acid stable, broad surfactant compatibility, exhibits enhanced surface activity for use in acidic floor and bathroom cleaners. **CleanGredients® Listed.**	HI&I Cleaners, Textile Finishing, Bleach and Peroxy Cleaners, Floor Cleaners, Dairy Cleaners, Food Processing Cleaners, Bathroom Cleaners
Macat® AO-10	Decyl Dimethylamine Oxide	Liquid/30%	Naturally plant derived decyl (C10) dimethylamine oxide in water, effective wetting agent, outstanding grease cutter that is hypochlorite and acid and alkali stable, exhibits enhanced surfactant activity for use in acidic floor and bathroom cleaners, non-rewetting above 350 degrees Fahrenheit, useful as a foaming agent in brine solutions. **CleanGredients® Listed.**	Dishwash Detergents, HI&I Cleaners, Textile Finishing, Oilfield Applications, Bleach and Peroxy Cleaners, Floor Cleaners, Dairy Cleaners, Food Processing Cleaners, Bathroom Cleaners
Macat® AO-12	Alkyl Dimethylamine Oxide	Liquid/30%	30% Active lauryl (C12) dimethylamine oxide in water, effective wetting agent, outstanding foam booster and grease cutter that is hypochlorite and acid and alkali stable, enhanced surface activity for use in acidic floor and bathroom. **CleanGredients® Listed.**	Dishwash Detergents, HI&I Cleaners, Bleach and Peroxy Cleaners, Floor Cleaners, Dairy Cleaners, Food Processing Cleaners, Bathroom Cleaners
Macat® AO-12-2	Dihydroxyethyl Cocamine Oxide	Liquid/30%	30% Active dihaydroxyethyl cocamine oxide in water, provides viscosity control, outstanding foam booster and foam stabilizer. **CleanGredients® Listed.**	Dishwash Detergents, HI&I Cleaners, Bleach and Peroxy Cleaners, Floor Cleaners, Dairy Cleaners, Food Processing Cleaners, Bathroom Cleaners
Macat® AO-18:1	Oleamine Oxide	Liquid/30%	Naturally oleyl (C18.1) dimethylamine oxide in water, dilutes to high viscosity aqueous solutions, outstanding foam booster and grease cutter that is chlorine and acid stable, biodegradable and contains no solvents or VOC's.	HI&I Cleaners, Drain Openers and Cleaners, Hypochlorite Formulations, Bleach and Peroxy Cleaners, Floor Cleaners, Dairy Cleaners, Food Processing Cleaners, Bathroom Cleaners

Amine Oxides	Continued			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Macat® MCO	Myristyl/Cetyl Dimethylamine Oxide	Liquid/30%	Naturally plant derived myristyl/cetyl (C14/16) dimenthylamine oxide in water, provides viscosity control, outstanding foam booster and grease cutter that is chlorine and acid stable. Available as 20% active Macat® MCO-20.	Dishwasher Detergents, HI&I Cleaners, Drain Openers and Cleaners, Bleach and Peroxy Cleaners, Floor Cleaners, Dairy Cleaners, Food Processing Cleaners, Bathroom Cleaners
Macat® Ultra LMDO	Lauramidopropylamine Oxide	Liquid/30%	Naturally plant derived lauryl (C12) amidopropyl dimethylamine oxide in water, effective wetting agent, outstanding foam booster, grease cutter and low pH thickener. Low Free Peroxide version available.	Dishwash Detergents, HI&I Cleaners, Bleach and Peroxy Cleaners, Floor Cleaners, Dairy Cleaners, Food Processing Cleaners, Bathroom Cleaners, and Low Free Peroxide Version Available
Macat® Ultra CDO	Cocamidopropylamine Oxide	Liquid/30%	Naturally plant derived coco (C12) amidopropyl dimethylamine oxide in water, effective wetting agent, outstanding foam booster, grease cutter and low pH thickener. Low Free Peroxide version available. **CleanGredients® Listed.**	

Betaines	Biodegradable viscosity building thickeners offering mildness and foam boosting and stabilizing characteristics, available in various alkyl chains and active levels, and compatible with a wide range of primary surfactants.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Macat® LB	Lauryl Alkyl Betaines	Liquid/34%	Naturally plant derived lauryl (C12), cetyl (C16) or lauryl/cetyl (C12/16) dimethyl betaines in water, classic zwitterion surfactants with good detergency and coupling performance, with exceptional mildness to skin, biodegradable and contains no solvents or VOC's, exhibiting very low toxicity.	Liquid Laundry Detergent, Hand Dish Wash, Multi-Purpose Cleaner, Floor Cleaner, HI&I Cleaners
Macat® LCB	Lauryl/ Cetyl Alkyl Betaines	Liquid/30%		
Macat® LFB	Capryl/Capramidopropyl Betaine	Liquid/30%	Naturally plant derived caprylic/capric (C8/10) amidopropyl betaine in water, classic zwitterion surfactant with good detergency and coupling performance, with exceptional mildness to skin, biodegradable, contains no solvents or VOC's, exhibits very low toxicity.	Liquid Laundry Detergent, Hand Dish Wash, Multi-Purpose Cleaner, Floor Cleaner, HI&I Cleaners
Macat® Ultra CG	Cocamidopropyl Betaine	Liquid/30%	Naturally plant derived coco (C12-16) amidopropyl betaine in water, classic zwitterion surfactant, used as an exceptionally mild cleansing agent, skin conditioner, foam booster and thickener, biodegradable, contains no solvents or VOC's, exhibits very low toxicity.	Liquid Laundry Detergent, Hand Dish Wash, Multi-Purpose Cleaner, Floor Cleaner, HI&I Cleaners

Household, Industrial, & Institutional

Betaines	Continued			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Caltaine® C-35	Cocamidopropyl Betaine	Liquid/30%	Mild, viscosity-building and foam-boosting agent with great detergency properties. It is fully compatible with anionic, nonionic and amphoteric surfactants and provides outstanding foam intensity, foam stabilization and viscosity-building properties.	Liquid Laundry Detergent, Manual Dish Wash, Multi-Purpose Cleaner, Floor Cleaner, HI&I Cleaners
Macat® LHS	Lauryl Hydroxysultaine	Liquid/42%	Naturally plant derived lauryl (C12) hydroxysultaine in water, effective wetting and detergency, outstanding foam stabilizer, stable in strongly acid and alkaline systems, biodegradable, contains no solvents or VOC's, exhibits very low toxicity.	Liquid Laundry Detergent, Manual Dish Wash, Multi-Purpose Cleaner, Floor Cleaner, HI&I Cleaners
Macat® CAP-HS	Cocamidopropyl Hydroxysultaine	Liquid/50%	Naturally plant derived coco (C12-16) amidopropyl hydroxysultaine in water, effective wetting and detergency, outstanding foam stabilizer, stable in strongly acid and alkaline systems, biodegradable, contains no solvents or VOC's, very mild ingredient, exhibiting very low toxicity.	Liquid Laundry Detergent, Manual Dish Wash, Multi-Purpose Cleaner, Floor Cleaner, HI&I Cleaners

Specialty Products	Pilot specialty products are designed to enhance a variety of cleaning formulations, and come in a range of active levels.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calinate® LE	Disodium Laureth Sulfosuccinate	Liquid/40%	Very mild and high-foaming anionic surfactant with excellent wetting characteristics. Produces Sulfate alternative formulations with good foam properties and viscosity response to amides, betaines and salts.	Laundry Detergents, Mild Dish Wash Detergents, Hard Surface Cleaners
Macat® DOSS-70PG S	Sodium Dioctyl Sulfosuccinate	Liquid/70%	Di-2-ethylhexyl sodium sulfosuccinate in water and propylene glycol, compatibility in a wide range of solvent systems for use as a versatile wetting, dispersing, emulsifying and detergent ingredients, readily biodegradable, listed on the EPA Inert ingredient list 4B as a Minimal Risk Material.	Cleaning Formulations
Macat® DOSS-75E	Sodium Dioctyl Sulfosuccinate	Liquid/75%	Di-2-ethylhexyl sodium sulfosuccinate in water and ethanol, broad FDA Status, compatibility in a wide range of solvent systems for use as a versatile wetting, dispersing, emulsifying and detergent ingredients, readily biodegradable, complying with decree on surfactant biodegradability of the European Community, listed on the EPA Inert ingredient list 4B as a Minimal Risk Material.	Cleaning Formulations and HI&I
Macat® DOSS-70MSO	Sodium Dioctyl Sulfosuccinate	Liquid/70%	Di-2-ethylhexyl sodium sulfosuccinate in Mineral seal oil, broad FDA Status, compatibility in a wide range of solvent systems for use as a versatile wetting, dispersing, emulsifying and detergent ingredients, readily biodegradable, complying with decree on surfactant biodegradability of the European Community, listed on the EPA Inert ingredient list 4B as a Minimal Risk Material.	Cleaning Formulations

Specialty Products	Continued			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Masurf® NF-10	High Alkaline Stable Low Foam Surfactant	Liquid/50%	Highly efficient, high alkaline stable surfactant that delivers exceptional low foam detergency, unique detergent system that features high alkaline hydrotrope properties of an anionic with low foam cloud point performance of a nonionic, recommended for all applications where efficient low foam detergency is critical, including Spray, Soak, In-Line and other Clean-In-Place systems, non-flammable, non-VOC, low foaming, alkaline stable and water soluble.	Automatic Dishwashing Liquid and Low Foam Cleaner Concentrate
Masurf® NF-25	High Alkaline Stable Low Foam Surfactant	Liquid/50%	Highly efficient, high alkaline stable surfactant that delivers exceptional low foam detergency, unique detergent system that features high alkaline hydrotrope properties of an anionic with low foam cloud point performance of a nonionic, recommended for all applications where efficient low foam detergency is critical, including Spray, Soak, In-Line and other Clean-In-Place systems, non-flammable, non-VOC, low foaming, alkaline stable and water soluble.	Low Foam Cleaner Concentrate and Bottle Wash Concentrate
Masoteric™ 160C-30	Sodium Lauriminodipropionate	Liquid/30%	Sodium lauriminodipropionate surfactant in water, salt-free, multifunctional amphoteric surfactant characterized by acid/alkali stability, detergency, and ability to couple nonionic surfactants into strong electrolyte solutions, detergency, solubilizing and emulsification properties with compatibility in nonionic, anionic and cationic surfactant solutions.	Liquid Detergents, Household and Industrial Cleaners
Masoteric™ C-2SF	Disodium Cocoamphodipropionate	Liquid/38%	Disodium coco imadozoline dicaboxylate surfactant in water, salt-free, multi-functional amphoteric surfactant characterized by acid/alkali stability, detergency, and ability to couple nonionic surfactants into strong electrolyte solutions, listed in 2007 CIR Compendium as safe for use as a cosmetic ingredient & mild enough for use in Baby Shampoo, ability to mitigate irritation of surfactants, detergency, solubilizing and emulsification properties with compatibility in nonionic, anionic and cationic surfactant solutions.	Liquid Detergents, Household and Industrial Cleaners and Electroplating
Macat® AEC-8964	Capryleth-9 Carboxylic Acid & Hexeth-4 Carboxylic Acid	Liquid/87%	Naturally plant derived mixed alcohol ether carboxylate surfactant blend, shipped as the free acid, for neutralization into a range of products & applications, tailored as a function of pH, under acidic conditions functions as a nonionic, under alkaline conditions functions as a hard water tolerant anionic, biodegradable, non-VOC and easy to handle.	All applications where low foam, wetting, alkaline stability and hypochlorite stability is critical. Use in low foaming anionic systems for detergency and oil solubilization. Take advantage of the hypochlorite stabiliteyin CIP formulations & specialty cleaners, Automatic Dishwashing Liquid

Household, Industrial, & Institutional

Alcohol Ethoxylates	Nonionic surfactants characterized by high surface activity, and rapid biodegradability, to readily enhance cleaning formulations.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Masodol® 1-3	Alcohol Ethoxylates	Liquid/100%	Narrow-range linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity; unique degreasing, wetting, dispersing, detergent and oil solubilizing properties; unique multifunctional surfactant for use in wide range of products & applications; exceptionally rapid penetration of soils for improved cleaning performance on hard surfaces. **CleanGredients® Listed.**	Paints & Coatings, Water Based Degreasers, Laundry & Textile Wetting, Spray Dried Detergents, Deinking, Vehicle & Household Hard Surface Cleaners
Masodol® 1-7	Alcohol Ethoxylates	Liquid/100%	Narrow-range linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity; unique degreasing, wetting, dispersing, detergent and oil solubilizing properties; unique multifunctional surfactant for use in wide range of products & applications **CleanGredients® Listed.**	Degreasers, Pine Oil and d-Limonene Cleaners, Laundry Detergents, Vehicle Cleaners, Paintings & Coatings, Water Based Degreasers, Laundry & Textile Wetting, Spray Dried Detergents, Deinking, Vehicle & Household Hard Surface Cleaners
Masodol® 25-7	Alcohol Ethoxylates	Liquid/100%	Linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity; unique degreasing, wetting, dispersing, detergent & oil solubilizing properties; unique multifunctional surfactant for use in wide range of products & applications; standalone surfactant or with amphoteric, cationic, and anionic surfactants; **CleanGredients® Listed.**	Degreasers, Pine Oil and d-Limonene Cleaners, Liquid Laundry, Floor Cleaners and Strippers, Paintings & Coatings, Water Based Degreasers, Laundry & Textile Wetting, Spray Dried Detergents, Deinking, Vehicle & Household Hard Surface Cleaners
Masodol® 25-9	Alcohol Ethoxylates	Liquid/100%	Linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity; unique degreasing, wetting, dispersing, detergent & oil solubilizing properties; unique multifunctional surfactant for use in wide range of products & applications; standalone surfactant or with amphoteric, cationic, and anionic surfactants; **CleanGredients® Listed.**	Degreasers, Pine Oil and d-Limonene Cleaners, Liquid Laundry, Floor Cleaners and Strippers, Paints & Coatings, Water Based Degreasers, Laundry & Textile Wetting, Spray Dried Detergents, Deinking, Vehicle & Household Hard Surface Cleaners
Masodol® 900	Alcohol Ethoxylates	Liquid/95%	Linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity; unique degreasing, wetting, dispersing, detergent & oil solubilizing properties; unique multifunctional surfactant for use in wide range of products & applications; standalone surfactant or with amphoteric, cationic, and anionic surfactants; **CleanGredients® Listed.**	Degreasers, Pine Oil and d-Limonene Cleaners, Liquid Laundry, Floor Cleaners and Strippers, Paints & Coatings, Water Based Degreasers, Laundry & Textile Wetting, Spray Dried Detergents, Deinking, Vehicle & Household Hard Surface Cleaners

Alcohol Ethoxylates	Continued			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Masodol® 91-2.5	Alcohol Ethoxylates	Liquid/100%	Low HLB linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity; unique degreasing, wetting, dispersing, detergent and oil solubilizing properties; unique multifunctional surfactant for use in wide range of products and applications; exceptionally rapid penetration of soils for improved cleaning performance on hard surfaces; use with other nonionic surfactants or with amphoteric, cationic, and anionic surfactants; grease cutting emulsifier.	Degreasers, Pine Oil and d-Limonene Cleaners, Vehicle Cleaners, Paints & Coatings, Water Based Degreasers, Laundry & Textile Wetting, Spray Dried Detergents, Deinking, Vehicle & Household Hard Surface Cleaners
Masodol® 91-6	Alcohol Ethoxylates	Liquid/100%	Linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity; unique degreasing, wetting, dispersing, detergent & oil solubilizing properties; unique multifunctional surfactant for use in wide range of products & applications; exceptionally rapid penetration of soils for improved cleaning performance on hard surfaces; use as a standalone surfactant or with amphoteric, cationic, and anionic surfactants; **CleanGredients® Listed.**	Degreasers, Pine Oil and d-Limonene Cleaners, Vehicle Cleaners, Paints & Coatings, Water Based Degreasers, Laundry & Textile Wetting, Spray Dried Detergents, Deinking, Vehicle & Household Hard Surface Cleaners
Masodol® 91-8	Alcohol Ethoxylates	Liquid/100%	Linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity; unique degreasing, wetting, dispersing, detergent & oil solubilizing properties; unique multifunctional surfactant for use in wide range of products & applications; exceptionally rapid penetration of soils for improved cleaning performance on hard surfaces; use as a standalone surfactant or with amphoteric, cationic, and anionic surfactants; **CleanGredients® Listed.**	Degreasers, Pine Oil and d-Limonene Cleaners, Vehicle Cleaners, Paints & Coatings, Water Based Degreasers, Laundry & Textile Wetting, Spray Dried Detergents, Deinking, Vehicle & Household Hard Surface Cleaners

Household, Industrial, & Institutional

Neutral Disinfectants

EPA Reg. No.	Product Name	Active Ingredient	% Active	Dilution Ounces per Gallon			Notes
				Hospital Disinfectant	General Disinfectant	Sanitizer	
10324-114	Maquat® 32 MN	MQ615M/624M	2.713	4.0	4.0	4.0	Disinfectant/ Non-Food Contact Sanitizer/ Athletic Surface Disinfectant/ Non-Dulling to Floors/ Extensive Hospital Claims/ Small Fly Ovicidal/ Avian Influenza/ HIV, HBV, HCV/ Resistant Strains
10324-113	Maquat® 64 MN	MQ615M/624M	5.426	2.0	2.0	2.0	
10324-112	Maquat® 128 MN	MQ615M/624M	10.85	1.0	1.0	1.0	
10324-108	Maquat® 256 MN	MQ615M/624M	21.7	0.5	0.5	0.5	
10324-157	Maquat® 32-NHQ	2420-50%/80%	2.113	4.0	4.0	4.0	Disinfectant/ Cleaner/ Non-Food Contact Sanitizer/ Athletic Surface Disinfectant/ Non-Dulling to Floors/ Extensive Claims/ Avian Influenza/ Parvo Virus
10324-154	Maquat® 64-NHQ	2420-50%/80%	4.225	2.0	2.0	2.0	
10324-155	Maquat® 128-NHQ	2420-50%/80%	8.45	1.0	1.0	1.0	
10324-141	Maquat® 256-NHQ	2420-50%/80%	16.9	0.5	0.5	0.5	
10324-156	Maquat® 512-NHQ	2420-50%/80%	33.8	0.25	0.25	0.25	

Alkaline pH Disinfectants

EPA Reg. No.	Product Name	Active Ingredient	% Active	Dilution Ounces per Gallon			Notes
				Hospital Disinfectant	General Disinfectant	Sanitizer	
10324-164	Maquat® 256 PD	MQ2525M-50%/80%	12.5		0.5-0.75	0.75	Disinfectant/ Cleaner/ Non-Food Contact Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Avian Influenza
10324-58	Maquat® 128	MQ2525M-50%/80%	9.0	1.0	1.0	0.28-1.0	Disinfectant/ Cleaner/ Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Norovirus/ Ebola Virus/ Avian Influenza/ Parvovirus
10324-105	Maquat® 128 PD	MQ2525M-50%/80%	9.0	1.0	1.0	1.0	Disinfectant/ Cleaner/ Non-Food Contact Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Avian Influenza/ Norovirus
10324-59	Maquat® 64	MQ2525M-50%/80%	4.5	2.0	2.0	0.57-2.0	Disinfectant/ Cleaner/ Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Ebola Virus/ Avian Influenza/ Norovirus/ Parvovirus
10324-93	Maquat® 64 PD	MQ2525M-50%/80%	4.5	2.0	2.0	2.0	Disinfectant/ Cleaner/ Non-Food Contact Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Ebola Virus/ Norovirus/ Avian Influenza
10324-166	Maquat® 32	MQ2525M-50%/80%	1.563	4.0-6.0	4.0	1.6-6.0	Disinfectant/ Cleaner/ Sanitizer/ Non-Acid Bathroom Cleaner/ Non-Dulling to Floors/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Avian Influenza
10324-167	Maquat® 32 PD	MQ2525M-50%/80%	1.563	4.0	4.0	6.0	Disinfectant/ Cleaner/ Non-Food Contact Sanitizer/ Non-Acid Bathroom Cleaner/ Non-Dulling to Floors/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Avian Influenza
10324-57	Maquat® 42	MQ2525M-50%/80%	3.2	3.0	2.0		Disinfectant/ Cleaner/ Detergent/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Avian Influenza/ Parvovirus
10324-71	Maquat® 280	MQ2525M-50%/80%	1.6	6.0	4.5		Disinfectant/ Cleaner/ Deodorizer/ Non-Acid Bathroom Cleaner/ Non-Dulling to Floors/ Athletic Surface Disinfectant/Avian Influenza/ Parvovirus
10324-140	Maquat® MQ2525M-CPV	MQ2525M-50%/80%	3.2	3.0	3.0		Disinfectant/ Cleaner/ Detergent/ Deodorizer/ Animal Premises/ Avian Influenza/ Parvovirus

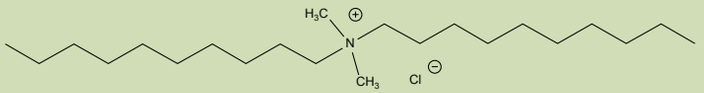
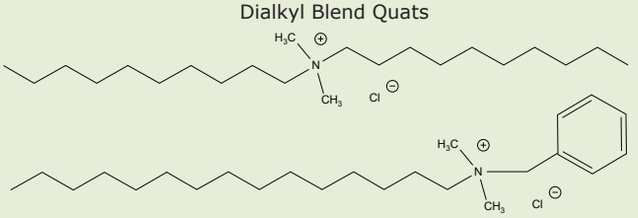
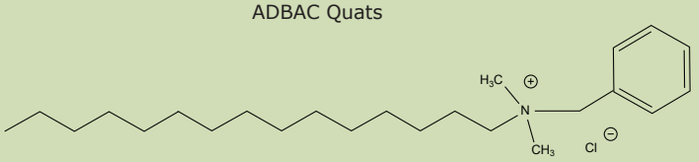
Alkaline pH Disinfectants Continued

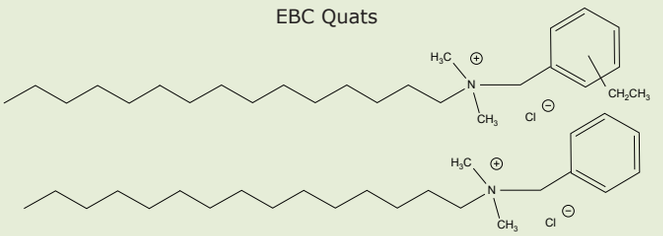
EPA Reg. No.	Product Name	Active Ingredient	% Active	Dilution Ounces per Gallon			Notes
				Hospital Disinfectant	General Disinfectant	Sanitizer	
10324-72	Maquat® 615-HD	MQ615M/ 624M	21.7	0.5	0.5	0.09	Disinfectant/ Non-Food Contact Sanitizer/ Cleaner/ Deodorizer/ Athletic Surface Disinfectant/ Small Fly Ovicidal/Avian Influenza
10324-169	Maquat® 615-MR	MQ615M/ 624M	5.5	2.0 oz. per gallon (Mold & Mildew)			Mold Remediation - Construction Materials , HVAC Systems, Water Damage Restoration
10324-80	Maquat® 5.5-M	MQ615M/ 624M	5.5	2.0	1.25	0.36	Disinfectant/ Cleaner/ Non-Food Contact Sanitizer/ Deodorizer/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Avian Influenza

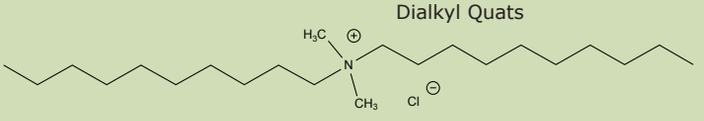
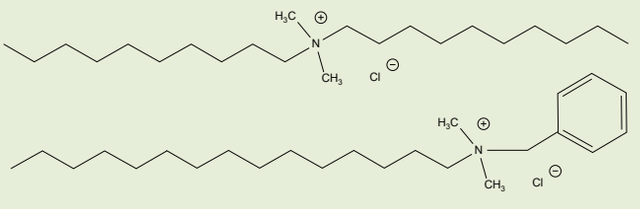
No-Rinse Food and Non-Food Contact Sanitizers

EPA Reg. No.	Product Name	Active Ingredient	% Active	Dilution Ounces per Gallon			Notes
				Hospital Disinfectant	General Disinfectant	Sanitizer	
10324-198	Maquat® 702.5-M	MQ615M/ 624M	2.5	2.40	1.40	0.75-2.0	Disinfectant/ Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Third Compartment Sink/ Laundry Sanitizer/ Ebola Virus/ Avian Influenza
10324-177	Maquat® 705-M	MQ615M/ 624M	5.0	1.20	0.70	0.25-0.5	Disinfectant/ Sanitizer/ Non-Acid Bathroom Cleaner/ Third Compartment Sink/ Laundry Sanitizer/ Ebola Virus/ Avian Influenza
10324-81	Maquat® 7.5-M	MQ615M/ 624M	7.5	0.78	0.44	0.25-0.67	Disinfectant/ Sanitizer/ Non-Acid Bathroom Cleaner/ Third Compartment Sink/ Laundry Sanitizer/ Norovirus/ Ebola Virus/ Avian Influenza
10324-117	Maquat® 710-M	MQ615M/ 624M	10.0	0.60	0.35	0.18 - 0.5	Disinfectant/ Sanitizer/ Non-Acid Bathroom Cleaner/ Third Compartment Sink/ Laundry Sanitizer/ Ebola Virus/ Avian Influenza
10324-159	Maquat® 710-HF	MQ615M/ 624M	10.0		1.00	0.25-0.50	High Foam Disinfectant/ Non-Food Contact Sanitizer - Drains, Entryways/ Avian Influenza
10324-115	Maquat® 750-M	MQ615M/ 624M	50.0	0.12	0.07	0.0375 - 0.2	High Concentrated Disinfectant/ Sanitizer/ Non-Acid Bathroom Cleaner/ Third Compartment Sink/ Laundry Sanitizer/ Ebola Virus/ Avian Influenza
10324-63	Maquat® 10	MQ2525M-50%/80%	10.0	0.80	0.60	0.25	Disinfectant/ Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant, Small Fly Ovicidal/ HIV, HCV/ HBV, Avian Influenza
10324-99	Maquat® 10-PD	MQ2525M-50%/80%	10.0	0.80	0.60	0.25	Disinfectant/ Non-Food Contact Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Perfume & Dye/ Avian Influenza
10324-142	Maquat® MQ2525M-14	MQ2525M-50%/80%	14.08	0.67	0.45	0.18-0.36	Disinfectant/ Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Avian Influenza
10324-94	Maquat® 20-M	MQ2525M-50%/80%	20.0	0.40	0.30	0.13	Disinfectant/ Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Third Compartment Sink/ Horticultural & Ornamental Plant Treatments/ Small Fly Ovicidal/ Avian Influenza
10324-96	Maquat® 50DS	MQ2525M-50%/80%	50.0	0.16	0.12	0.04-0.10	Disinfectant/ Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Small Fly Ovicidal/ Avian Influenza
10324-67	Maquat® MQ615-AS	MQ615M/ 624M	10.25		1.00	0.25	Multi-Purpose, No-Rinse Acid Cleaner/ Disinfectant/ Sanitizer/ Multiple Acid Options/ Avian Influenza/ Removes Milkstone or Beerstone
10324-194	Maquat® 2420-10%	2420-50%/80%	10.0	1.00	1.00	0.188-0.5	Disinfectant, Sanitizer, Cold Temperature Food Contact Sanitizer/ Non-Acid Bathroom Cleaner/ Athletic Surface Disinfectant/ Avian Influenza
10324-187	Maquat® 1010N-10%	4450-E/ 4480-E	10.0		1.00	0.188-0.3	Disinfectant/ Cleaner/ Sanitizer/ Athletic Surface Disinfectant/ Third Compartment Sink/ Ecologo
10324-111	Maquat® 1412-10% FCS	MC1412-50%/ 1412-80%E	10.0	1.00	1.00	0.25	Disinfectant/ Cleaner/ Sanitizer/ Third Compartment Sink/ Small Fly Ovicidal

Household, Industrial, & Institutional

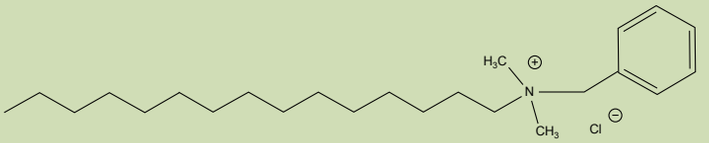
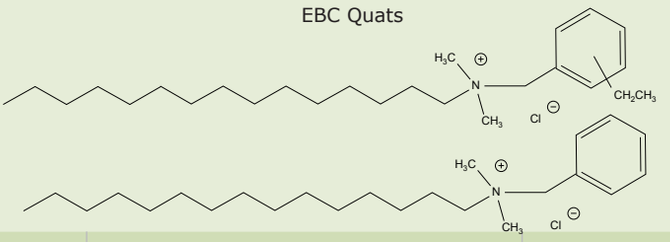
Maquat® Grade	Structure/Description	Cross Reference: Stepan EPA #1839	Cross Reference: EPA#6836	Cross Reference: Lonza EPA# 47371
Dialkyl Quats 		Dialkyl (Dialkyl Dimethyl Ammonium Chloride) Quats are recognized as the most efficacious defined by outstanding germicidal performance, unusual tolerance for anionic surfactants, protein loads and hard water, and are FDA cleared for use as "indirect food additives" in sanitizing solutions for food contact surfaces at concentrations up to 400ppm active without a potable water rinse.		
40-50 (EPA Reg.#10324-31)	20% Dioctyl, 30% Didecyl, 50% Octyldecyl dimethyl ammonium chlorides	BTC 818 BTC 818-80%	Bardac 2050 Bardac 2080	FMB 302
4450-E (EPA Reg.#10324-34) 4480-E (EPA Reg.#10324-35)	Didecyl ammonium chloride	BTC 1010 BTC 1010-80%	Bardac 2250 Bardac 2280	FMB 210-5 FMB 210-8
Dialkyl Blend Quats 		Dialkyl (Dialkyl Dimethyl Ammonium Chloride) Quats blended quats benefit from the increased surfactant and fragrance solubility with ADBACs, while exhibiting high germicidal performance, tolerance for protein loads and hard water. Maquat® Dialkyl Blend Quats are FDA cleared for use as "indirect food additives" in sanitizing solutions for food contact surfaces at concentrations up to 400ppm active without a potable water rinse.		
MQ 615M (EPA Reg.#10324-51) MQ 624M (EPA Reg.#10324-52	40% n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride/ 60% Dioctyl, didecyl, octyldecyl dimethyl ammonium chlorides	BTC 885 BTC 888	Bardac 205M Bardac 208M	FMB 504 FMB 604-8
2420-50 (EPA Reg.#10324-126) 2420-80 (EPA Reg.#10324-127)	40% n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride/ 60% Didecyl ammonium chloride			FMB 504 FMB 604-8
ADBAC Quats 		ADBAC (Alkyl DimethylBenzyl Ammonium Chloride) Quats are generally referred to as First Generation or Single Chain Quats. The Maquat® ADBAC Series products provide a broad spectrum of bacteriological control at an economical price, and are FDA cleared for use as "indirect food additives" in sanitizing solutions for food contact surfaces at concentrations up to 200ppm active without a potable water rinse.		
LC12S-50% (EPA Reg.#10324-3) LC12S-80% (EPA Reg.#10324-129)	n-Alkyl (67% C12, 25% C14, 7% C16, 1% C18) dimethylbenzyl ammonium chloride	BTC 65	Bardac LB-50 BioQuat 50-65	FMB 504
MC1412-50% (EPA Reg.#10324-6) MC1412-80%E (EPA Reg.#10324-14)	n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride	BTC 835 BTC 8358	Barquat MB-50 Barquat MB-80 Hyamine 3500	FMB 451-5 FMB 451-8
MC1416-50% (EPA Reg.#10324-8) MC1416-80% (EPA Reg.#10324-9) MC1416-80% (EPA Reg.#10324-165)	n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride	BTC 824 BTC 8248	Barquat MX-50 Barquat MX-80	FMB 4500-5 FMB 4500-8

Maquat® Grade	Structure/Description	Cross Reference		
		Stepan		Lonza
		EPA #1839	EPA#6836	EPA# 47371
MC5815 (EPA Reg.#10324-98)	n-Alkyl (58% C14, 28% C16, 14% C12) dimethylbenzyl ammonium chloride		BioQuat 50-28	
MC6025-50% (EPA Reg.#10324-26)	n-Alkyl (60% C14, 25% C12, 15% C16) dimethylbenzyl ammonium chloride	BTC 2565 BTC 2568	Barquat PJ-50 Barquat OJ-80	FMB 65-15 FMB 65-28
TC76-50% (EPA Reg.#10324-1)	99.6% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 0.4% n-Dialkyl (60% C14, 30% C16, 5% C12, 5% C18) methylbenzyl ammonium chloride	BTC 776	Barquat 1552	
EBC Quats 		EBC (Alkyl DimethylEthylbenzyl Ammonium Chloride) Quats (blended with ADBACs) are generally referred to as Second Generation or Dual Chain Quats, with the advantage of organic soil tolerance allowing for "one-step" cleaning and disinfecting. Mason® EBC quats are FDA cleared in sanitizing solutions for food contact surfaces up to 200ppm active without a potable water rinse		
MQ2525-50% (EPA Reg.#10324-17)	50% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 50% n-Alkyl (50% C12, 30% C14, 17% C16, 3% C18) dimethylethylbenzyl ammonium chloride	BTC 2125	Barquat 4250	FMB 6075-5
MQ2525M-50% (EPA Reg.#10324-28) MQ2525M-80% (EPA Reg.#10324-27)	50% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 50% n-Alkyl (68% C12, 32% C14) dimethylethylbenzyl ammonium chloride	BTC 2125M BTC 2125M-80	Barquat 4250Z Barquat 4280Z	FMB 3328-5 FMB 3328-8

Maquat® Grade	Structure/Description	BioRenewable %
Dialkyl Quats 		
40-50 (EPA Reg.#10324-31)	20% Dioctyl, 30% Didecyl, 50% Octyldecyl dimethyl ammonium chlorides	90
4450-E (EPA Reg.#10324-34)* 4480-E (EPA Reg.#10324-35)	Didecyl ammonium chloride	91
Dialkyl Blend Quats 		

* Maquat® 4450E/4480E EcoLogo® approved for use in Environmental Choice™ Program CCD-166 Disinfectants and Disinfectants-Cleaners.

Household, Industrial, & Institutional

Maquat® Grade	Structure/Description	BioRenewable %
MQ615M (EPA Reg.#10324-51) MQ624M (EPA Reg.#10324-52)	40% n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride/ 60% Dioctyl, didecyl, octyldecyl dimethyl ammonium chlorides	78
2420-50 (EPA Reg.#10324-126) 2420-80 (EPA Reg.#10324-127)	40% n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride/ 60% Didecyl ammonium chloride	79
	ADBAC Quats 	
LC12S-50% (EPA Reg.#10324-3) LC12S-80% (EPA Reg.#10324-129)	n-Alkyl (67% C12, 25% C14, 7% C16, 1% C18) dimethylbenzyl ammonium chloride	59
MC1412-50% (EPA Reg.#10324-6) MC1412-80%E (EPA Reg.#10324-14)	n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride	60
MC1416-50% (EPA Reg.#10324-8) MC1416-80% (EPA Reg.#10324-9)	n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride	62
MC5815 (EPA Reg.#10324-98) MC5815-80% (EPA Reg.#10324-89)	n-Alkyl (58% C14, 28% C16, 14% C12) dimethylbenzyl ammonium chloride	61
MC6025-50% (EPA Reg.#10324-26)	n-Alkyl (60% C14, 25% C12, 15% C16) dimethylbenzyl ammonium chloride	60
TC76-50% (EPA Reg.#10324-1)	99.6% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 0.4% n-Dialkyl (60% C14, 30% C16, 5% C12, 5% C18) methylbenzyl ammonium chloride	62
	EBC Quats 	
MQ2525-50% (EPA Reg.#10324-17)	50% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 50% n-Alkyl (50% C12, 30% C14, 17% C16, 3% C18) dimethylethylbenzyl ammonium chloride	58
MQ2525M-50% (EPA Reg.#10324-28) MQ2525M-80% (EPA Reg.#10324-27)	50% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 50% n-Alkyl (68% C12, 32% C14) dimethylethylbenzyl ammonium chloride	58

Personal Care

At Pilot, our wide variety of anionic, cationic, amphoteric and nonionic surfactant chemistries deliver luxurious foam, mildness and superior cleansing characteristics in shampoo, body wash, bar soap, hand soap, lotion, dental, pet care, and skin care applications. These low-color, high-purity performance products help you create the best personal care products.

Alkyl Ether Sulfates

Calfoam® ammonium and sodium laureth sulfates are biodegradable anionic surfactants that have great cleansing properties with water hardness tolerance. They are excellent foamers with high flash foam and high viscosity response using amides, betaines and salts.

Product	INCI Name	Physical Form/Activity	Features/Benefits	Application
Calfoam® ES-301	Sodium Laureth Sulfate (1 Mole EO)	Liquid/26%	• Ammonium laureth sulfates should be used with formulations having a pH of 7.0 or below. • Sodium laureth sulfates are compatible with high pH formulations. • Higher moles of EO may increase skin mildness and flash foaming properties. • Calfoam® ES-302HS has high viscosity. • Calfoam® ES-603 contains ethanol as a solvent. • Calfoam® ES-702, ES-702LD and ES-703 offer cost savings over lower active products, but require special handling and storage capabilities. • Calfoam® ES-302LD and ES-702LD are specially processed to achieve extremely low dioxane levels. • Calfoam® ES-562 is a high active product with the ease of handling of a low active product and does not contain alcohol.	Shampoos, personal and pet cleansers, liquid hand soaps, baby wash, bubble bath, facial cleansers
Calfoam® ES-302	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%		
Calfoam® ES-302HS	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%		
Calfoam® ES-302LD	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%		
Calfoam® ES-303	Sodium Laureth Sulfate (3 Mole EO)	Liquid/28%		
Calfoam® ES-562	Sodium Laureth Sulfate	Liquid/55%		
Calfoam® ES-702	Sodium Laureth Sulfate (2 Mole EO)	Liquid/70%		
Calfoam® ES-702LD	Sodium Laureth Sulfate (2 Mole EO)	Liquid/70%		
Calfoam® ES-703	Sodium Laureth Sulfate (3 Mole EO)	Liquid/70%		

Alkyl Sulfates

Calfoam® lauryl sulfates are biodegradable anionic surfactants derived from renewable vegetable resources. They have excellent cleansing and foaming properties. They produce creamy lather; copious high flash foam; soft and silky after-feel properties; and provide excellent viscosity response with amides, betaines and salts.

Product	INCI Name	Physical Form/Activity	Features/Benefits	Application
Calfoam® ALS-30	Ammonium Lauryl Sulfate	Liquid/30%	• Calfoam® ALS-30 should be used with formulations having a pH of 7.0 or below. • Calfoam® TLS-40 offers higher activity, increased mildness and clarity at lower temperatures. Lower viscosity and foam responses with amides, betaines and salts, compared to SLS and ALS.	Shampoos, personal and pet cleansers, liquid hand soaps
Calfoam® TLS-40	TEA Lauryl Sulfate	Liquid/40%		

Personal Care

Alkanolamides	Pilot's alkanolamides are biodegradable, naturally derived, 100% active 1:1 super amides which provide foam boosting, foam stabilization and viscosity building properties in personal care products. They also offer multiple lubrication and emulsification characteristics.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calamide® C	Cocamide DEA	Liquid/100%	Calamide® C is a clear amide used for viscosity building and foam stabilization.	Shampoos, personal and pet cleansers, liquid hand soaps, baby wash, bubble bath, facial cleansers
Calamide® MC	Cocamide MEA	Flake/100%	Calamide® MC is an amide with some emollient and lubrication characteristics. Requires heat to bring product to a liquid state.	
Masamide® R-4	PEG-4 Rapeseedamide	Liquid/90%	A unique thickening, foam boosting and stabilizing, and solubilizing agent, free of diethanolamine and nitrosamine, and high biodegradability and low aquatic toxicity.	

Performance Blends	CalBlend® products are pre-formulated performance blends. Simply mix with water to the preferred active level, then add preservative, fragrance and dye to obtain a finished product ready for packaging. CalBlend® products offer formulators convenience and reduction of production errors and inventory.			
Product	**INCI Name**	**Physical Form/Solids**	**Features/Benefits**	**Application**
CalBlend® CLEAR	Sodium Laureth Sulfate, Cocamidopropyl Betaine, Cocamide DEA	Liquid/35%	CalBlend® CLEAR is a clear, high-foaming performance blend with good foam stability, excellent lather, high flash foam and great cleansing properties. All surfactants in CalBlend® CLEAR are biodegradable.	General hand soaps for pump and foam dispensers, body wash, and pet care products
CalBlend® DF	Sodium Laureth Sulfate, Sodium Lauryl Sulfate, Cocamidopropyl Betaine, Cocamide MIPA	Liquid/33%	DEA alternative blend that produces formulations which easily build viscosity levels, while yielding premium instant flash foam. CalBlend® DF is environmentally friendly, VOC alternative, and solvent alternative. Offers deep cleansing and leaves a silky after-feel.	Shampoo, body wash, liquid hand soap, and pet shampoo
CalBlend® ECO-1	Sodium Lauryl Sulfate, Sodium Laureth Sulfate, Cocamide MEA, Cocamidopropyl Betaine	Liquid/35%	CalBlend® ECO-1 is an environmentally and economically friendly performance blend that is biodegradable. Offers excellent cleansing, viscosity, flash foam, luxurious lather and skin mildness characteristics.	Shampoos, body wash, pet care products and hand soaps
CalBlend® MILD	Sodium Laureth Sulfate, PEG-80 Sorbitan Laurate, Lauramidopropyl Betaine, PEG-150 Distearate	Liquid/38%	Ultra-mild optimized blend of gentle foaming and cleansing agents with excellent viscosity characteristics, low eye irritation, contains no solvents, is naturally derived, DEA alternative, and VOC alternative.	Baby shampoo, baby bath, puppy shampoo, ultra-mild personal and pet care applications
CalBlend® PXS	Sodium Laureth Sulfate, Sodium Lauryl Sulfate, Glycol Stearate, Cocamidopropyl Betaine, Cocamide MIPA, PEG-46M	Liquid/36%	CalBlend® PXS is a DEA alternative, ready-to-use pearlescent, high-foaming performance blend with good foam stability, excellent lather, flash foam and great cleansing properties. All surfactants in CalBlend® PXS are biodegradable.	Pearlescent body wash, shampoos, and hand soaps
Masamide® REP	Surfactant Blend	Liquid/36%	High foaming thickener with excellent wetting, detergency, and foaming characteristics. Displays great solubility and stability in alkaline and high electrolyte systems and is 1,4 Dioxane alternative. This multifunctional blend can be used as a stand-alone surfactant or with amphoteric, nonionic, cationic, and anionic surfactants.	Body Wash, Shampoo, Facial Cleansers, Hand Soap

Personal Care

At Pilot, our wide variety of anionic, cationic, amphoteric and nonionic surfactant chemistries deliver luxurious foam, mildness and superior cleansing characteristics in shampoo, body wash, bar soap, hand soap, lotion, dental, pet care, and skin care applications. These low-color, high-purity performance products help you create the best personal care products.

Sulfonates	Calsoft® sulfonates produce economical, sulfate alternative personal care formulations with excellent cleansing, high foam volume, great flash foam and nice viscosity characteristics. They are fully compatible with anionic, nonionic and amphoteric surfactants.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calsoft® AOS-40	Sodium C14-16 Olefin Sulfonate	Liquid/40%	Olefin sulfonates produce sulfate alternative and economical personal care formulas with excellent cleansing, foam volume, flash foam and viscosity characteristics over a broad pH range.	Shampoos, hand soaps, personal and pet cleansers
Calsoft® T-60	Triethanolamine Dodecylbenzene Sulfonate	Liquid/60%	Triethanolamine alkyl benzene sulfonates provide a high surfactant activity with excellent cleansing properties. Great solubilizer for perfumes.	Personal and pet care shampoos and cleansers

Specialty Products	Pilot's specialty products offer excellent mildness, lather, foam stability and viscosity-building characteristics in numerous personal care and sulfate alternative formulations. They are biodegradable and derived from natural vegetable resources.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calinate® LE	Disodium Laureth Sulfosuccinate	Liquid/40%	Calinate® LE is a cleansing agent with exceptional mildness and creamy lather characteristics, that will not remove the essential oils from the hair and skin. Produces sulfate alternative formulations with good foam properties and good viscosity response to amides, betaines and salts. Biodegradable and derived from renewable vegetable resources.	Bubble bath, facial cleansers, syndet bars, sulfate alternative products, baby wash, shampoos, body wash
Masoteric™ 160C-30	Sodium Lauriminodipropionate	Liquid/30%	A salt-free, multi-functional amphoteric surfactant characterized by hydrolytic stability and its ability to couple nonionic surfactants into strong electrolyte solutions along with exceptional foaming, detergency, solubilizing and emulsification properties.	Waterless hand and cosmetic skin cleaners, conditioning shampoos, aerosol shave creams and as an emulsifier in creams and lotions

Personal Care

Amine Oxides	Pilot offers a wide range of naturally derived Amines that produce a mild, creamy lather, and impart conditioning for a soft after feel while providing excellent foam boosting and stabilizing characteristics.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Caloxamine® CPO	Cocamidopropylamine Oxide	Liquid/32%	Caloxamine® CPO is fully compatible with anionic, nonionic and amphoteric surfactants. Provides excellent foam stabilization, copious foam and foam-boosting properties. Offers good viscosity-building and emulsification characteristics. Stable in low and high pH formulations. Biodegradable and derived from renewable vegetable resources.	Bubble bath, facial cleansers, syndet bars, sulfate alternative products, baby wash, shampoos, body wash
Caloxamine® LO	Lauramine Oxide	Liquid/30%	Caloxamine® LO is similar to Caloxamine® CPO in applications. It offers great cleansing and good emulsification and viscosity-building characteristics. Fully compatible with anionic, nonionic and amphoteric surfactants. Provides outstanding foam volume, good foam stabilization and foam-boosting properties. Stable in low and high pH formulations. Biodegradable and derived from renewable vegetable resources.	Bubble bath, facial cleansers, syndet bars, sulfate alternative products, baby wash, shampoos, body wash
Macat® AO-12	Lauryl Dimethylamine Oxide	Liquid/30%	Rheology modifier, emulsifier, and cleansing agent with excellent foam boosting/ stabilizing characteristics.	Shampoo, body wash, bubble bath, cleansers
Macat® AO-12-2	Dihydroxyethyl Cocamine Oxide	Liquid/30%	Provides viscosity control, and is an outstanding foam booster and foam stabilizer. Biodegradable, solvent and VOC alternative.	Conditioners, creams, shampoo
Macat® AO-14	Myristamine Oxide	Liquid/30%	A naturally plant derived myristyl (C14) dimethylamine oxide in water that provides viscosity control, and is an outstanding foam booster.	Creams, lotions, conditioners, and shampoos
Macat® AO-18:1	Oleamine Oxide	Liquid-Gel/30%	A naturally plant derived oelyl (C18:1) dimethylamine oxide in water that provides viscosity control, and is an outstanding foam booster.	Creams, lotions, conditioners, and shampoos
Macat® BD	Behenamidopropyl Dimethylamine	Pastille/100%	Naturally derived Behenamidopropyl Dimethylamine, offering superior conditioning performance and detangling ability, without causing build up on hair.	Creams, lotions, conditioners, and rinses
Macat® MCO	C12-18 Alkyldimethyl Amine n-Oxides	Liquid/30%	Naturally plant derived myristyl/cetyl (C12-18) dimethylamine oxide in water that provides viscosity control, and is an outstanding foam booster.	Creams, lotions, conditioners, and shampoos
Macat® Ultra CDO	Cocamidopropylamine Oxide	Liquid/32%	Naturally plant derived coco amidopropyl dimethylamine oxide in water, and is based on the renewable vegetable lipid found in coconut oil.	Shampoo, conditioners, rinses
Macat® Ultra LMDO	Lauramidopropylamine Oxide	Liquid/30%	Naturally plant derived lauryl (C12) amidopropyl dimethylamine oxide in water that provides effective wetting, outstanding foam boosting, grease cutting and thickening properties at low pH.	Shampoos, conditioners, rinses, and skin cleansers

Personal Care

At Pilot, our wide variety of anionic, cationic, amphoteric and nonionic surfactant chemistries deliver luxurious foam, mildness and superior cleansing characteristics in shampoo, body wash, bar soap, hand soap, lotion, dental, pet care, and skin care applications. These low-color, high-purity performance products help you create the best personal care products.

Amine Oxides	Pilot offers a wide range of naturally derived Amines that produce a mild, creamy lather, and impart conditioning for a soft after feel while providing excellent foam boosting and stabilizing characteristics.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Caloxamine® CPO	Cocamidopropylamine Oxide	Liquid/32%	Caloxamine® CPO is fully compatible with anionic, nonionic and amphoteric surfactants. Provides excellent foam stabilization, copious foam and foam-boosting properties. Offers good viscosity-building and emulsification characteristics. Stable in low and high pH formulations. Biodegradable and derived from renewable vegetable resources.	Bubble bath, facial cleansers, syndet bars, sulfate alternative products, baby wash, shampoos, body wash
Caloxamine® LO	Lauramine Oxide	Liquid/30%	Caloxamine® LO is similar to Caloxamine® CPO in applications. It offers great cleansing and good emulsification and viscosity-building characteristics. Fully compatible with anionic, nonionic and amphoteric surfactants. Provides outstanding foam volume, good foam stabilization and foam-boosting properties. Stable in low and high pH formulations. Biodegradable and derived from renewable vegetable resources.	Bubble bath, facial cleansers, syndet bars, sulfate alternative products, baby wash, shampoos, body wash
Macat® AO-12	Lauryl Dimethylamine Oxide	Liquid/30%	Rheology modifier, emulsifier, and cleansing agent with excellent foam boosting/ stabilizing characteristics.	Shampoo, body wash, bubble bath, cleansers
Macat® AO-12-2	Dihydroxyethyl Cocamine Oxide	Liquid/30%	Provides viscosity control, and is an outstanding foam booster and foam stabilizer. Biodegradable, solvent and VOC alternative.	Conditioners, creams, shampoo
Macat® AO-14	Myristamine Oxide	Liquid/30%	A naturally plant derived myristyl (C14) dimethylamine oxide in water that provides viscosity control, and is an outstanding foam booster.	Creams, lotions, conditioners, and shampoos
Macat® AO-18:1	Oleamine Oxide	Liquid-Gel/30%	A naturally plant derived oelyl (C18:1) dimethylamine oxide in water that provides viscosity control, and is an outstanding foam booster.	Creams, lotions, conditioners, and shampoos
Macat® BD	Behenamidopropyl Dimethylamine	Pastille/100%	Naturally derived Behenamidopropyl Dimethylamine, offering superior conditioning performance and detangling ability, without causing build up on hair.	Creams, lotions, conditioners, and rinses
Macat® MCO	C12-18 Alkyldimethyl Amine n-Oxides	Liquid/30%	Naturally plant derived myristyl/cetyl (C12-18) dimethylamine oxide in water that provides viscosity control, and is an outstanding foam booster.	Creams, lotions, conditioners, and shampoos
Macat® Ultra CDO	Cocamidopropylamine Oxide	Liquid/32%	Naturally plant derived coco amidopropyl dimethylamine oxide in water, and is based on the renewable vegetable lipid found in coconut oil.	Shampoo, conditioners, rinses
Macat® Ultra LMDO	Lauramidopropylamine Oxide	Liquid/30%	Naturally plant derived lauryl (C12) amidopropyl dimethylamine oxide in water that provides effective wetting, outstanding foam boosting, grease cutting and thickening properties at low pH.	Shampoos, conditioners, rinses, and skin cleansers

Personal Care

Betaines/Sultaines	Biodegradable viscosity building thickeners offering mild and naturally derived foam boosting, enhancing, and stabilizing characteristics built to enhance your Personal Care product line. Available in various alkyl chains and active levels. Compatible with a wide range of primary surfactants.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Caltaine® C-35	Cocamidopropyl Betaine	Liquid/30%	Caltaine® C-35 is a mild, viscosity-building and foam-boosting agent typically used as a secondary surfactant in numerous personal care applications. Fully compatible with anionic, nonionic, and amphoteric surfactants. Provides outstanding foam, foam stabilization and viscosity-building properties. Biodegradable and derived from renewable vegetable resources.	Bubble bath, facial cleansers, syndet bars, sulfate alternative products, baby wash, shampoos, body wash
Macat® CAP-HS	Cocamidopropyl Hydroxysultaine	Liquid/44%	Derived from coconut oil, commonly used as a replacement for cocamidopropyl betaine. Biodegradable, and contains no solvents or VOCs.	shampoo, body wash, and rinses
Macat® LB	Lauryl Betaine	Liquid/30%	Naturally plant derived lauryl (C12)dimethyl betaines in water that provides good detergency and coupling performance, with exceptional mildness to skin.	Shampoos, conditioners, rinses, and skin cleansers
Macat® LFB	Capryl/Capramidopropyl Betaine	Liquid/30%	Naturally plant derived caprylic/capric (C8/10) amidopropyl dimethyl glycine (betaine) in water that provides good detergency and coupling performance, with exceptional mildness to skin.	Shampoos, conditioners, rinses, and skin cleansers
Macat® LHS	Lauryl Hydroxysultaine	Liquid/44%	Naturally plant derived lauryl (C12) hydroxysultaine in water that provides effective wetting and detergency, outstanding foam stabilization, and is stable in strongly acid and alkaline systems.	skin conditioners, shampoos, soaps, cosmetics, and baby products.
Macat® Ultra CG	Cocamidopropyl Betaine	Liquid/30%	Classic zwitterion surfactant, used as an exceptionally mild cleansing agent, skin conditioner, foam booster and thickener, and is based on the renewable vegetable lipid found in coconut oil, retaining the natural humectancy of glycerin.	Shampoo, conditioners, and rinses

Personal Care

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Preservatives & Preservative Alternatives	Cost effective preservatives that are stable in a wide range of pH and temperature conditions. Pilot's Personal Care preservatives are compatible with surfactants, emulsifiers, and proteins.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Enhansys® CG-100	Caprylyl Glycol	Liquid/Solid 100%	Widely regarded as an effective emollient base, that functions as a conditioning ingredient, wetting agent, viscosity modifier and biological stabilizer. Stabilizing and pH control in place of traditional preservatives. Typically used in combination with phenoxyethanol and chloroxylenol.	Hair & skin conditioner and personal care formulations
Enhansys® M-100	Glycereth-2 Cocoate & Benzoic Acid	Liquid/100%	An effective moisturizer and thickener; benzoic acid is useful in pH control. Stabilizing and pH control in place of traditional preservatives. The efficacy of the benzoic acid is enhanced in the presence of proplene glycol.	Shampoo, body wash, liquid hand soap, and other personal care formulations
Maguard® H-55	DMDM Hydantoin	Liquid/55%	Versatile and cost effective preservative that provides a high level of antimicrobial activity, inhibiting the growth of bacteria, yeasts and molds. Fully compatible with surfactants, emulsifiers and proteins, and stable over wide pH and temperature ranges for use as a cosmetic preservative.	Shampoos, conditioners, personal scrubbing and cleansing wipes, creams and lotions, sunscreens, raw materials and baby products

Specialty Products	Pilot's specialty Personal Care emollients and thickeners produce mild, thick emulsions, while improving performance across a wide range of applications.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Macare™ G-2C	Glycereth Cocoate	Liquid/100%	Non-irritating, thickener, foam booster/ stabilizer, solubilizer, emulsifier, conditioner and emollient free of diethanolamine and nitrosamine.	Liquid soaps, lotions, body washes, shower gels, shampoos, facial cleansers, bubble baths and decorative cosmetics

Personal Care

Specialty Products	Specialty Hair Care polymer that imparts volume, soft feel, and dry combability, while providing flexible hold performance and curl retention with humidity resistance with no residue or build up.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Macare™ HP-230	Acrylates Copolymer	Liquid/100%	A low viscosity acrylic emulsion polymer when neutralized delivers a crystal-clear, practically colorless film forming solution that imparts volume, soft feel and dry combability. In addition it provides flexible hold performance and curl retention with humidity resistance and good wash-out removability for no residue or buildup. The emulsion form allows very low viscosities in high water formulations, with molecular weights optimized for humidity resistance, imparting a light, cushiony feel and an enhanced tactile experience in use.	Pump and aerosol mousse hair fixative and styling products, hair sprays, hair gels and styling mousse products.

Alkyl Trimethyl Ammonium Chlorides	Pilot's naturally derived cationic surfactants are available in a wide range of active levels, both in flake and liquid form, and impart exceptional conditioning, emulsifying, and emollient properties.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Maquat® BTMC-85	Behentrimonium Chloride	Flake/80%	Naturally plant derived behenyl trimethyl ammonium chloride offered as an 80% active flake that imparts exceptional conditioning, wet-comb, detangling, softening, suspending and emulsification.	Conditioners, rinses, skin creams and lotions
Maquat® C-15	PEG-15 Cocomonium Chloride	Liquid/95%	Naturally plant derived cocoalkylmethyl PEG-15 ammonium chloride that provides anti-static, dispersing, hydrotrope, solubilizing and foaming properties.	Conditioners and skin creams and lotions
Maquat® CETAC-30%	Cetrimonium Chloride	Liquid/30%	Naturally plant derived cetyl trimethyl ammonium chloride in water with excellent substantive and anti-static properties that imparts exceptional conditioning, and detangling.	Conditioners, rinses, skin creams and lotions
Maquat® OAC	Olealkonium Chloride	Liquid/50%/80%	Naturally derived oleyl dimethylbenzyl ammonium chloride in water/ethanol that provides substantive conditioning, emulsifying and emollient properties.	Conditioners, mousses, styling gels, lotions and creams
Maquat® SC1632	Cetearyl Alcohol, PEG 40 Castor Oil, Stearalkonium Chloride	Flake/14%	Naturally plant derived stearalkonium chloride with cetearyl alcohol and PEG 40 Castor Oil that provides substantive conditioning, emulsifying and emollient properties.	Conditioners, Lotions and Creams
Maquat® SC18	Stearalkonium Chloride	Paste/Flake/ 25%/85%	Naturally plant derived stearyl dimethylbenzyl ammonium chloride in water/ethanol that provides substantive conditioning, emulsifying and emollient properties.	Conditioners, mousses, styling gels, lotions and creams

Personal Care

At Pilot, our wide variety of anionic, cationic, amphoteric and nonionic surfactant chemistries deliver luxurious foam, mildness and superior cleansing characteristics in shampoo, body wash, bar soap, hand soap, lotion, dental, pet care, and skin care applications. These low-color, high-purity performance products help you create the best personal care products.

Specialty Products	Unique conditioning agents, available in a variety of active levels, that impart detangling properties and build volume to enhance a wide range of Personal Care applications.			
Product	**INCI Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Mason® CS-445, CS-448	Didecyldimonium Chloride	Liquid/50%/80%	Naturally plant derived didecyl dimethyl ammonium chloride for use as a cationic surfactant to impart antistatic and conditioning properties.	Conditioners, creams and lotions
Maquat® PQ-100 Series	Polymethacrylamidopropyl Trimonium Chloride	Liquid/30%	An anti-static agent and film former that imparts conditioning, detangling, improved dry comb and fly away, build volume and sheen properties.	Conditioners, relaxers, conditioning volumnizing shampoos, skin lotions, and styling gels, mousses and sprays
Maquat® PQ-200 Series	Polyquaternium 37	Liquid/30%	An anti-static agent and film former that imparts conditioning, detangling, improved dry comb and fly away, build volume and sheen properties.	Conditioners, relaxers, conditioning volumnizing shampoos, skin lotions, and styling gels, mousses and sprays
Maquat® SL-5	Dihydroxypropyl PEG-5 Linoleammonium Chloride	Liquid/40%	Naturally plant derived dihydroxypropyl PEG-5 linoleammonium chloride in water that has unique substantive, lubricating, detangling, anti-static and anionic compatible foaming properties.	2-in-1 shampoos, restorative conditioners, conditioning hair color, creams and lotions
Maquat® SOY-QSX	Soy Trimethoxysilylpropyldimonium Chloride	Liquid/80%	A unique naturally derived "deep-conditioning" agent that provides a true "Heat Activated" hair conditioning treatment for deep, long lasting conditioning with outstanding curl retention.	Hair straightners, hair curling and perm formulations, hair conditioners and pet and animal grooming products

Oil Field and Gas Well

Gas Well, Drilling, & Production

Specialized Oilfield Chemistries				
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Aristonic® Acids and Aristonate® Products	Alkyl Aryl Sulfonic Acids and Sulfonates	Liquid/50-90%	Aristonic® and Aristonate® products are consistent oil/water emulsifiers, corrosion inhibitors, demulsifiers and lubricity providers for drilling. Low, medium and high molecular weight products are available featuring highly desirable features in a variety of applications. They can easily replace natural sulfonates.	Well drilling and stimulation, water-based drilling mud systems, silt suspension, paraffin control, production, EOR projects
Calamide® Products	Alkanolamides	Liquid and Dry/100%	Calamide® products are a foam booster, viscosity enhancer, lubricity agent, torque reducer and corrosion inhibitor. They also are an effective emulsification aid.	Well drilling and stimulation, torque reduction and corrosion inhibition
Calfax® Products	Linear/Branched Diphenyl Oxide Disulfonates and Disulfonic Acids	Liquid/35-70%	Calfax® products are great wetting agents and foamers used in high temperature applications. They offer great stability over a wide pH range and high tolerance to highly electrolytic systems.	Detergent and dispersing agent for well cleanout operations
Calimulse® EM-99	Branched Alkyl Benzene Sulfonic Acid	Liquid/97%	Calimulse® EM-99 is a high active intermediate to make various salts for demulsifiers and anti-sludge agents.	Anti-sludge agent for well stimulation, primary and secondary production
Calimulse® PR	Isopropylamine Branched Alkyl Benzene Sulfonate	Liquid/93%	Calimulse® PR is a consistent and high active branched emulsifier or wax crystal modifier	Paraffin control and demulsification for primary and secondary production
Calimulse® PRS	Isopropylamine Linear Alkyl Benzene Sulfonate	Liquid/93%	Calimulse® PR is a consistent and high active linear emulsifier or wax crystal modifier	Paraffin control and demulsification for primary and secondary production
Calsoft® AOS-40	Sodium C14-16 Alpha Olefin Sulfonate	Liquid/40%	Calsoft® AOS-40 is a foamer used in high temperature applications. It has extended stability and good flash-foaming characteristics within a wide pH range.	Foam drilling, foam fracturing and well stimulation
Calsoft® F-90	Linear Alkyl Benzene Sulfonate, Sodium Salt	Flake/90%	Calsoft® F-90 is an easy-to-handle sulfonate flake with good anti-caking and wetting properties.	Cementing
Calsoft® LAS-99	Linear Alkyl Benzene Sulfonic Acid	Liquid/97%	Calsoft® LAS-99 is a high active intermediate to make various salts for consistent and predictable demulsifiers. Can also function as a detergent, wetting agent and foaming agent.	Cleaning, lubricity, anti-sludge and penetration agent for well stimulation and production
Caltaine® C-35	Cocamidopropyl Betaine	Liquid/30%	Caltaine® C-35 is a foaming agent, foam booster and foam stabilizer with consistent performance.	Foam drilling and unloading gas wells
Macat® DOSS	Dioctyl Sodium Sulfosuccinate	Liquid/70%	Macat® DOSS Sulfosuccinates offer compatibility in a wide range of solvent systems for use as a versatile wetting, dispersing, emulsifying, and detergent ingredient.	Drilling fluids, wetting agent, detergent and dispersing agent for well cleanout operations
Pilot® DABSA	Oil Soluble Alkyl Aryl Sulfonic Acid	Liquid/80%	Pilot® DABSA is a high molecular weight intermediate used to make various salts for demulsifiers. It can also inhibit the precipitation of calcium naphthenate	Primary and secondary production, emulsifier for crude. Naphthenate inhibitor.

Oilfield Biocides

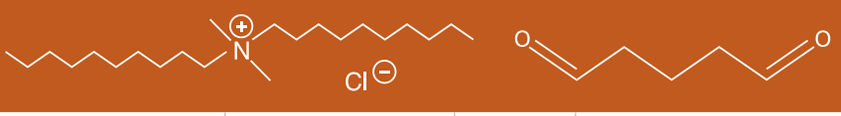
Didecyl Dimethyl Ammonium Chloride (DDAC)

Product	EPA Reg. #	Active Ingredient	% Active	Description
Maquat® 4450-CT	10324-70	Maquat® 4450-E	50	Didecyl dimethyl ammonium chloride. Approved for use in ALL 50 states and Canada.
Maquat® 4450-CTI (Winterized)	10324-70	Maquat® 4480-E	50	Didecyl dimethyl ammonium chloride - Isopropanol (IPA) winterized version of Maquat® 4450-CT, manufactured by diluting Maquat® 4480-E with IPA. Approved for use in ALL 50 states and Canada.
Maquat® 4450-CTE (Winterized)	10324-70	Maquat® 4480-E	50	Didecyl dimethyl ammonium chloride - ethanol (EtOH) winterized version of Maquat® 4450-CT, manufactured by diluting Maquat® 4480-E with EtOH. Approved for use in ALL 50 states and Canada.
Maquat® 4450-CTM (Winterized)	10324-210	Maquat® 4480-E	50	Didecyl dimethyl ammonium chloride - methanol (MeOH) winterized version of Maquat® 4450-CT, manufactured by diluting Maquat® 4480-E with MeOH. Approved for use in 49 states and Canada - **No** California registration.
Maquat® 4450-10% -S&W	10324-88	Maquat® 4450-E or Maquat® 4480-E	10	EPA registered, 10% active, naturally plant derived didecyldimethyl ammonium chloride "end-use" product, manufactured by diluting Maquat® 4450-E or Maquat® 4480-E. Approved for use in ALL 50 states- **No** Canada registration.

Dialkyl Dimethyl Ammonium Chloride (DDAC) & Alkyl Dimethyl Benzyl Ammonium Chloride (ADBAC) Blends

Product	EPA Reg. #	Active Ingredient	% Active	Description
Maquat® 7.5M	10324-81	Maquat® MQ 615M or Maquat® MQ 624M	7.5	3.000% n-Alkyl dimethyl benzyl ammonium chloride (50% C14, 40% C12, 10% C16) 1.125% Didecyl dimethyl ammonium chloride 2.250% Octyldecyl dimethyl ammonium chloride 1.125% Dioctyl dimethyl ammonium chloride
Maquat® 710M	10324-117	Maquat® MQ 615M or Maquat® MQ 624M	10	4.000% n-Alkyl dimethyl benzyl ammonium chloride (50% C14, 40% C12, 10% C16) 1.500% Didecyl dimethyl ammonium chloride 3.000% Octyldecyl dimethyl ammonium chloride 1.500% Dioctyl dimethyl ammonium chloride
Maquat® 750M	10324-115	Maquat® MQ 615M or Maquat® MQ 624M	50	20.000% n-Alkyl dimethyl benzyl ammonium chloride (50% C14, 40% C12, 10% C16) 7.500% Didecyl dimethyl ammonium chloride 15.000% Octyldecyl dimethyl ammonium chloride 7.500% Dioctyl dimethyl ammonium chloride

Glutaraldehyde & Didecyl Dimethyl Ammonium Chloride Blends



Product	EPA Reg. #	Active Ingredient	% Active	Description
Maquat® 1010N-25:12	10324-211	Glutaraldehyde & Didecyl dimethyl ammonium chloride	25.7% 12.5%	Synergistic blend of 25.7% glutaraldehyde and 12.5% didecyl dimethyl ammonium chloride in a water/ ethanol solution. It is produced by diluting and combining 50% glutaraldehyde, Maquat® 4450E or Maquat® 4480E with water. Maquat® 1010N-25:12 is approved for use in Canada and in 49 states. – **No** California registration

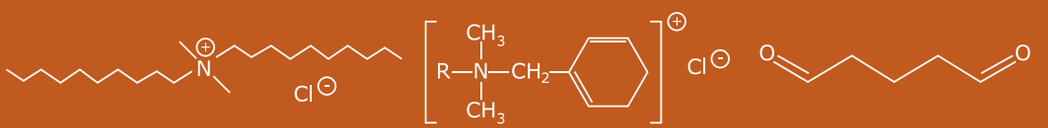
Oil Field and Gas Well

Oilfield Biocides

n-Alkyl Dimethyl Benzyl Ammonium Chloride (ADBAC)

Product	EPA Reg. #	Active Ingredient	% Active	Description
Maquat® MC1412-10%-W	10324-43	Maquat® MC1412-50% or Maquat® MC1412-80%	10.0	n-Alkyl (50% C14, 40% C12, 10% C16) dimethyl benzyl ammonium chloride
Maquat® MC1412-16%-W	10324-46		16.0	
Maquat® MC1412-50%-W	10324-42		50.0	
Maquat® MC1412-20%-S&W	10324-175		20.0	
Maquat® MC1412-40%-S&W	10324-87		40.0	
Maquat® MC1412-PS	10324-122	Maquat® MC1412-80%	80.0	
Maquat® MC1416-FB	10324-97	Maquat® MC1416-50%	50.0	n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride
Maquat® MC1416-V	10324-116		50.0	
Maquat® MC1416-10%CTP	10324-130	Maquat® MC1416-50% or Maquat® MC1416-80%	10.0	
Maquat® MC1416-40%CTP	10324-133		40.0	

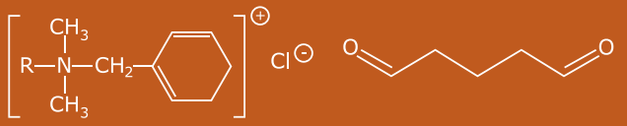
Didecyl Dimethyl Ammonium Chloride / n-Alkyl Dimethyl Benzyl Ammonium Chloride / Glutaraldehyde Blends



Product	EPA Reg. #	Active Ingredient	% Active	Description
Maquat® 40:10	10324-188	Glutaraldehyde & Maquat® 2420 (50% / 80%)	50.0	40.0% Glutaraldehyde 4.0% Alkyl dimethyl benzyl ammonium chloride 6.0% Didecyl dimethyl ammonium chloride
Maquat® 25:12	10324-185		38.2	25.7% Glutaraldehyde 5.0% Alkyl dimethyl benzyl ammonium chloride 7.5% Didecyl dimethyl ammonium chloride
Maquat® 25:12A (Winterized version of Maquat® 25:12)	10324-221		38.2	25.7% Glutaraldehyde 5.0% Alkyl dimethyl benzyl ammonium chloride 7.5% Didecyl dimethyl ammonium chloride
Maquat® 12:3	10324-209		15.5	12.5% Glutaraldehyde 1.2% Alkyl dimethyl benzyl ammonium chloride 1.8% Didecyl dimethyl ammonium chloride

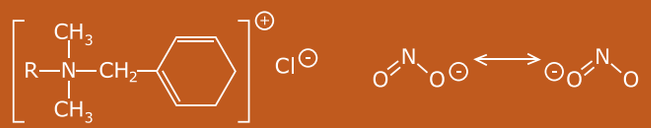
Oilfield Biocides

n-Alkyl Dimethyl Benzyl Ammonium Chloride / Glutaraldehyde Blend



Product	EPA Reg. #	Active Ingredient	% Active	Description
Maquat® 1412-40:10	10324-207	Glutaraldehyde & Maquat® MC1412 (50% / 80%)	50.0	40.0% Glutaraldehyde 10.0% Alkyl dimethyl benzyl ammonium chloride
Maquat® 5:10	10324-222		15.0	5.0% Glutaraldehyde 10.0% Alkyl dimethyl benzyl ammonium chloride
Maquat® 10:15	10324-223		25.0	10.0% Glutaraldehyde 15.0% Alkyl dimethyl benzyl ammonium chloride

n-Alkyl Dimethyl Benzyl Ammonium Chloride / Sodium Nitrite Blend



Product	EPA Reg. #	Active Ingredient	% Active	Description
Maquat® LC12S-NT	10324-186	Maquat® LC12S-50%	30.0	30.0% Alkyl dimethyl benzyl ammonium chloride. Maquat® LC12S-NT is a combination of n-alkyl dimethyl benzyl ammonium chloride and sodium nitrite. Sodium nitrate is a metabolic inhibitor of sulfate reducing bacteria. This product kills as well as inhibit growth of sulfate reducing bacteria whereby it causes a shift in the bacteria population down-hole. It allows the nitrogen fixing bacteria to out compete the sulfate reducing bacteria

Peracetic Acid

Product	EPA Reg. #	Active Ingredient	% Active	Description
Maguard® 5626	10324-214	Peroxyacetic Acid & Hydrogen Peroxide	33.2	5.900% Peroxyacetic Acid 27.30% Hydrogen Peroxide

Oil Field and Gas Well

Oilfield Foamers

Specialty Foaming Surfactants

Product	Chemical Name	Description	Brine Tolerance	Condensate Tolerance	Flash Foam	Foam Half Life
Caloxamine® LO	Lauramine Oxide	Caloxamine® LO is a 30% active lauryl dimethylamine oxide surfactant solution in water. The product is used as a foam booster, grease cutter and coupler. It's good detergency, tolerance of hypochlorite and compatibility with other surfactants make it an ideal component for multiple applications	Medium	Low	Average	Average
Calsoft® AOS-1245	Sodium Alpha Olefin (C12) Sulfonate	Calsoft® AOS-1245 is a 45% active clear amber aqueous solution of sodium alpha olefin sulfonate with high flash foam in highly electrolytic solutions, & hard/soft water environments. Perfect for oilfield down-hole drilling applications.	Medium	Medium	Average	Great
Macat® LHS	Lauryl Hydroxysultaine	Macat® LHS is a 42% active, naturally plant derived lauryl (C12) hydroxysultaine in water, optimized for high acid and high alkaline foaming applications. The exceptional quality of Macat® LHS allows for use in a wide range of markets and applications. Stable in acidic systems, LHS exhibits enhanced surface activity.	High	Low	Poor	Poor
Macat® AO-10	Decyl Dimethylamine Oxide	Macat® AO-10 is a 30% active, naturally plant derived decyl (C10) dimethylamine oxide in water. It is an effective wetting agent, outstanding foam stabilizer and grease cutter that is hypochlorite and acid stable. The exceptional quality allows for a wide range of applications, and is excellent as a foaming agent in brine solution	High	High	Excellent	Excellent
Macat® LB	Lauryl Betaine	Macat® Alkyl Betaines are 30% active naturally plant derived lauryl (C12), cetyl (C16), or lauryl/cetyl (C12/16) dimethyl betaines in water. Macat® Alkyl Betaines are classic zwitterion surfactants with good detergency and coupling performance.	Medium	Medium	Average	Average
Macat® LFB	Capryl/ Capramidopropyl Betaine	Macat® LFB is a 30% active, naturally plant derived caprylic/ capric (C8/10) amidopropyl dimethyl glycine (betaine) in water.	High	High	Excellent	Excellent
Macat® Ultra CDO	Cocamido-propylamine Oxide	Macat® Ultra CDO is a 30% active, naturally plant derived coco (C12) amidopropyl dimethylamine oxide in water.	High	High	Great	Great
Calfax® DB-45	Sodium Diphenyl Oxide Disulfonate	Calfax® DB-45 is a 45% active clear light amber aqueous solution of sodium dodecyl branched diphenyl oxide disulfonate. Outstanding wetting, emulsifying, coupling and stabilizing agent.	Low	Low	Poor	Poor
Macat® LMAB	Lauryl/Myristyl Amidopropyl-dimethyl Betaine	Macat® LMAB is a 30% active, naturally plant derived lauryl/ myristyl (C12/14) amidopropyl dimethyl glycine (betaine) in water.	Low	Medium	Average	Great

Corrosion Inhibition

Cationic Surfactants	Pilot offers a very broad array of cationic surfactants utilized within the oil and gas industry. Our Mason CS and Maquat® cationic surfactants offer many alternatives for oilfield formulators in producing oil soluble and water soluble corrosion inhibitors, anti-sludge additives, non-emulsifiers, KCl replacements, scale inhibitors, water-flood surfactant packages and cleaners, drilling fluid additives, acid inhibitors, emulsifiers, emulsion breakers, and hot oil and water treatment additives.	
Product	**Description**	**Attributes**
Mason® CS-125	Alkyl dimethyl benzyl ammonium chloride	Mason® ADBAC surfactants are excellent products for the formulating of corrosion inhibitors and water treating additives, providing multi-functional properties which include the formation of a uniform protective film as well as outstanding surfactancy and detergency. Mason® ADBAC surfactants are highly surface active and provide superior performance where a fouled system requires a thorough cleanup. The products are effective at removing deposited oil wet solids, such as iron sulfide, as well as certain scales, sand, hydrocarbons, and other foreign matter. This surfactancy performance also assists in establishing an uncontaminated system. Can be formulated with water and methanol for water soluble products, or diluted with HAN for oil soluble applications. The usage of exceptional quality natural raw materials provides for improved performance and lower dosage rates over traditional cocobenzyl ammonium chloride surfactants.
Mason® CS-424		
Mason® CS-425		
Mason® CS-428		
Mason® CS-465		
Mason® CS-468		
Mason® CS-445	Didecyl dimethyl ammonium chloride	Mason® DIDAC surfactants provide robust performance for the harshest oilfield environments. Typically more soluble than ADBAC cationic surfactants for improved performance in higher chlorides, for example. They are widely used for pipeline inhibitors, and are excellent additives for multi-functional gas and oil well treatment packages. Mason® DIDAC surfactants are excellent products to incorporate into corrosion inhibitors and water treating additive formulations, providing multi-functional properties which include the formation of a uniform protective film as well as outstanding surfactancy and detergency.
Mason® CS-448		
Mason® CS-050	Dialkyl dimethyl ammonium chloride blends	Mason® Dialkyl Blends offer synergistic corrosion inhibitor properties by combining both ADBAC and DIDAC quaternary surfactants for enhanced performance benefits. The blend ratio of the products have been optimized for maximum effectiveness for the formulation of corrosion inhibitors and water treatment additives, providing outstanding solubility, uniform protective film as well as outstanding surfactancy and detergency.
Mason® CS-15M		
Mason® CS-24M		
Mason® CS-405		
Mason® CS-408		
Mason® CSEBC-50	n-Alkyl dimethyl benzyl ammonium chloride & n-Alkyl dimethyl ethyl benzyl ammonium chloride	Mason® EBC 50 & EBC 80 are synergistic blends of ADBAC and ADEBAC which provide increased performance over the ADBAC products alone. These are considered 3rd generation quaternary ammonium chlorides and offer a multitude of uses for cationic corrosion inhibitors.
Mason® CSEBC-80		
Maquat® C-2	Coco bis(2-hydroxyethyl) methyl ammonium chloride	Maquat® C-2 is a 75% active, naturally plant derived coco bis(2-hydroxyethyl) methylammonium chloride in 2-propanol. The modified polar head group provides highly surface active properties and unique functionality with adsorptive capabilities. It provides proven anti-static, dispersing, hydrotrope, and solubilizing properties, C-2 is a unique multifunctional product for use in acidizing as an anti-sludge agent, iron dispersant, non-emulsifier, and an additive for corrosion inhibition and cleaners.

Oil Field and Gas Well

Corrosion Inhibition

Cationic Surfactants (cont.)		
Product	**Description**	**Attributes**
Maquat® C-15	Coco alkyl methyl PEG-15 ammonium chloride	Maquat® C-15 is a 95% active, naturally plant derived cocoalkylmethyl PEG-15 ammonium chloride. It is highly cationic and provides anti-static, dispersing, hydrotrope, and emulsifying properties. It is an excellent cationic surfactant and provides performance synergy to nonionic emulsifiers. It can also be used for applications such as corrosion inhibitors, drag reducers, and organoclay suspensions.
Maquat® CETAC	Hexadecyl trimethyl ammonium chloride	Maquat® CETAC is a 30% active, naturally plant derived hexadecyl trimethyl ammonium chloride in water with excellent substantive and anti-static properties when used as a base for the manufacturing of oilfield corrosion inhibitors. Highly surface active, Maquat® CETAC affords a broad range of uses based on the unique properties of this material. Use CETAC as a cationic emulsifier, as a corrosion inhibitor, and as a surface modifier of organo-modified clays and zeolites.
Maquat® DSC-75PG	Dimethyl dioctadecyl ammonium chloride	Maquat® DSC is a 75% active paste dimethyl dioctadecyl ammonium chloride which is a high quality, alcohol soluble, water dispersible cationic surfactant with excellent substantive properties. It is an outstanding anti-stat, dispersant, and corrosion inhibitor base. It is also uniquely qualified to be used as an effective additive for lubricants, self diverting stimulation fluid systems (viscoelastic diverting aids VDA), organo-modified clays, and even fabric softeners. It is very hydrophobic and non-regulated.
Maquat® LATAC	Dodecyl trimethyl ammonium chloride	Maquat® LATAC-30% is a 30% active lauryl trimethyl ammonium chloride in water with excellent substantive and anti-static properties for use in water soluble corrosion inhibitors and emulsion breakers. Maquat® LATAC-30% imparts exceptional wetting, cleaning, suspending and emulsification properties. Emulsion Breaker for EOR applications.
Maquat® OAC	Oleyl dimethyl ammonium chloride	OAC is a 50% active, naturally plant derived oleyl dimethylbenzyl ammonium chloride in ethanol. OAC is derived from natural soybean oil and is water soluble. OAC is a highly substantive cationic surfactant with multiple applications including corrosion inhibitors, lubricants, self-diverting stimulation fluids with viscoelastic properties (viscoelastic diverting acid VDA). Providing very adsorptive properties, it also find use in organo-modified clays and zeolites. Trimethyl versions can be produced if needed.
Maquat® Q-50S	Soy amidopropyl ammonium chloride	Maquat® Q-50S is a 50%, naturally derived soy amidopropyl ammonium chloride in water and isopropanol, for use as a cationic surfactant in a wide range of applications. Its unique surface active properties make it an excellent film forming agent to inhibit corrosion of metal surfaces. Other suggested uses include clay stabilizers and organo-modified clays and zeolites with a wide range of adsorptive capacities.
Maquat® T-15	Tallow alkyl methyl PEG-15 ammonium chloride	Maquat® T-15 is a 95% active tallowalkylmethyl PEG-15 ammonium chloride. Applications include anti-stats, water soluble corrosion inhibitors, dispersants, emulsifiers, and degreasers.

Metalworking and Lubricant Additives

At Pilot, our well-known, first-intent lubricant additives offer excellent corrosion inhibition and emulsification characteristics, with lower viscosities and improved handling features, than comparable natural sulfonates. The reason is our proprietary ice-cold sulfonation process. We manufacture the leading sulfonates for metalworking, corrosion inhibitor, emulsifier, demulsifier and lubrication applications.

Specialty Additives	Pilot produces a variety of specialty additives designed to enhance your metalworking and lubrication formulation			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Pilot® DABSA	Alkyl Aryl Sulfonic Acid	Liquid/80%	Pilot® DABSA is a high molecular weight sulfonic acid for neutralization to specialty sulfonates. Its acid form permits in situ neutralizations.	
Pilot® SXS-40	Sodium Xylene Sulfonate	Liquid/40%	Pilot® SXS-40 is a great solubilizer, coupling agent, cloud point depressant and viscosity reducer. Biodegradable.	

Alcohol Ethoxylates	Nonionic chemistries characterized by high surface activity, and rapid biodegradability, to readily enhance your formulations			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Masodol® 91-2.5	C9-11 Alcohol Ethoxylate	Liquid/100%	Low HLB linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity	Lubrication and metalworking formulations
Masodol® 1-3	C11 Alcohol Ethoxylate	Liquid/100%	Narrow-range linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity	
Masodol® 1-7	C11 Alcohol Ethoxylate	Liquid/100%	Narrow-range linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity	
Masodol® 25-7	C12-15 Alcohol Ethoxylate	Liquid/100%	Linear primary alcohol ethoxylate nonionic surfactant characterized by high surface activity, rapid biodegradability and low aquatic toxicity	

Metalworking and Lubricant Additives

Sulfonates	Pilot Chemical's sulfonates are manufactured utilizing custom tailored first-intent alkylates which offer consistent emulsification, demulsifying characteristics, corrosion inhibition performance and great handling properties that natural sulfonates cannot match.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Aristonate® C-5000	Neutral Calcium Sulfonate (EW=515)	Liquid/50%	Aristonate® C-5000 is a high performance corrosion inhibitor and demulsifier. It has a typical total base number (TBN) of 5mgKOH/g and features great water rejection characteristics for hydraulic fluids and greases.	Lubrication, metalworking and coating formulations
Aristonate® S-4000	Low Molecular Wt. Alkyl Aryl Sulfonate (MW=400)	Liquid/60%	Aristonate® S-4000 is a very efficient and low foaming emulsifier for soluble oils. It easily forms microemulsions generating the basis for semi-synthetic fluids.	
Aristonate® S-5000	Very High Molecular Wt. Alkyl Aryl Sulfonate (MW=500)	Liquid/60%	Aristonate® S-5000 is a corrosion inhibition agent with a low foam profile and good emulsification properties. It is well suited for semi-synthetics.	
Aristonate® H	High Molecular Wt. Alkyl Aryl Sulfonate (MW=470)	Liquid/60%	Aristonate® H is a corrosion inhibitor with good emulsification performance and has great iron and hard water tolerance.	
Aristonate® L	Low Molecular Wt. Alkyl Aryl Sulfonate (MW=400)	Liquid/60%	Aristonate® L is a high performance emulsifier for soluble oils.	
Aristonate® M	Medium Molecular Wt. Alkyl Aryl Sulfonate (MW=430)	Liquid/60%	Aristonate® M is a general utility and economical sulfonate that offers emulsification and corrosion protection.	
Aristonate® VH-2	Very High Molecular Wt. Alkyl Aryl Sulfonate (MW=520)	Liquid/60%	Aristonate® VH-2 is a strong corrosion inhibitor. It has good emulsification properties for soluble oils and semi-synthetics, used on paraffinic base stocks.	
Calfax® DB-45	Sodium C12 Branched Diphenyl Oxide Disulfonate	Liquid/45%	Calfax® DB-45 and Calfax® 16L-35 are specialty detergents that can increase the hard water tolerance of an emulsion without increasing foam tendencies. Offers excellent synergies with Aristonate® S-series products.	
Calfax® 16L-35	Sodium C16 Linear Diphenyl Oxide Disulfonate	Liquid/35%		
Calsoft® OS-45S	Sodium Oleic Sulfonate	Liquid/45%	Calsoft® OS-45S is an emulsifier and wetting agent with defoaming and anti-foam characteristics. It imparts corrosion resistance in many formulations and is a good solubilizer and dispersant. Biodegradable and derived from natural and renewable resources.	

Emulsion Polymerization

Diphenyl Oxide Disulfonates and Disulfonic Acids	Calfax® disulfonates and disulfonic acids are efficient anionic emulsifying and wetting agents with great electrolyte, temperature and hard water stability. Provides unsurpassed low critical micelle concentrations which aide in consistent particle size and distribution. Can be used as a sole surfactant or with other surfactants. Extremely stable in harsh environments; acidic and alkalinic, peroxide, bleach, high electrolytes and high temperatures. Low foaming, excellent substrate and low migration, wetting paints, coatings, adhesives and printing inks. Good compatibility with phosphate ester and nonionic surfactants. High hardness and alkaline tolerance; suitable for use in concrete, cement and masonry applications. Disulfonic acids offer higher activity levels and neutralization compared to disulfonates of choice. Many bases can neutralize these acids to produce a surfactant for emulsion polymerization which feature unique and desirable characteristics. All Calfax® products are VOC alternative, CFR 21 approved and do not contain any halogenated solvents. Perfect choice for APEO alternative formulations.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calfax® 6LA-70	C6 Linear Diphenyl Oxide Disulfonic Acid	Liquid/72%	Calfax® 6LA-70 utilizes a low carbon chain which presents excellent hydrotroping, coupling and rinsability properties. Can be neutralized with many different bases.	Easy-to-handle for emulsion polymerizations: • all acrylics • styrene-acrylics • styrene-butadiene • vinyl • choloprene • nitrile General adhesives, hot melt, pressure sensitive adhesives, films, paints, printing inks and aerosol
Calfax® 10L-45	Sodium C10 Linear Diphenyl Oxide Disulfonate	Liquid/45%	Calfax® 10L-45 produces very stable emulsion polymerizations with low foam. Provides excellent stabilization of rubber latex. Great synergy with polychloroprene. It is a perfect chemistry for synthetic rubbers.	
Calfax® 16L-35	Sodium C16 Linear Diphenyl Oxide Disulfonate	Liquid/35%	Calfax® 16L-35 is a highly efficient surfactant which produces extremely low critical micelle concentrations. It provides good emulsification with great stability, and is efficient in producing small particle size latex.	
Calfax® DB-45	Sodium C12 Branched Diphenyl Oxide Disulfonate	Liquid/45%	Calfax® DB-45 produces consistent polymerizations with excellent mechanical, thermal and electrolytic stability. Has great interface absorption features and great particle size control. Calfax® DB-45 also offers excellent wetting properties which assist in prevention defects in coatings and paints.	
Calfax® DBA-40	C12 Branched Diphenyl Oxide Disulfonic Acid	Liquid/40%	Calfax® DBA-40 and Calfax® DBA-70 offer consistent emulsifications with outstanding mechanical and thermal stability, and can be neutralized with many different bases to produce low-foaming emulsifiers with unique characteristics.	
Calfax® DBA-70	C12 Branched Diphenyl Oxide Disulfonic Acid	Liquid/71%		

Alcohol and Ether Sulfates	Alkyl and alkyl ether sulfates are anionic surfactants that are VOC's and halogenated solvent alternatives. They offer great consistency and predictable performance in a variety of emulsion polymerization applications. Perfect choice for APEO alternative formulations.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calimulse® SLS	Sodium Lauryl Sulfate	Liquid/30%	Calimulse® SLS is a naturally derived, vegetable based biodegradable linear anionic surfactant with good economical emulsification and wetting properties. Has excellent compatibility with nonionic surfactants and excellent performance in low and high pH applications.	Styrene, vinyl and acrylic emulsions

Emulsion Polymerization

Sulfonates	Calimulse® and Calsoft® sulfonates are anionic surfactants that are VOC and halogenated solvent alternatives. They offer great consistency and predictable performance in a variety of emulsion polymerization applications. Perfect choice for APEO alternative formulations.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calimulse® AOS	Sodium C14-16 Alpha Olefin Sulfonate	Liquid/40%	Calimulse® AOS is a clear anionic surfactant with good economical emulsification and wetting properties. Readily biodegradable.	Styrene-Butadiene, vinyl acetate, nitrile and acrylic latex manufacture General adhesives, hot melt, pressure sensitive adhesives films, paints, coatings, printing inks and aerosols
Calimulse® EM-22	Sodium Branched Alkyl Benzene Sulfonate	Liquid/22%	Calimulse® EM-22 is an effective emulsifier which produces stable emulsions. It also has great wetting and handling properties.	
Calimulse® EM-96F	Sodium Branched Alkyl Benzene Sulfonate	Flake/96%	Calimulse® EM-96F is a high active and very pure branched anionic sulfonate non-caking flake with great wetting and emulsifying properties.	
Calimulse® L-22	Sodium Linear Alkyl Benzene Sulfonate	Liquid/22%	Calimulse® L-22 offers great emulsifying and wetting properties. Perfect as a primary or co-emulsifier. Readily biodegradable.	
Calimulse® L-30	Sodium Linear Alkyl Benzene Sulfonate	Liquid/30%	Calimulse® L-30 is a clear and homogeneous linear anionic surfactant with great handling and storage properties. Readily biodegradable.	
Calimulse® L-50	Sodium Linear Alkyl Benzene Sulfonate	Paste/50%	Calimulse® L-50 is a high active and viscous linear anionic surfactant. The higher viscosity of L-50 often requires special storage and handling. It does not contain a hydrotrope. Readily biodegradable.	
Calimulse® PR	Isopropylamine Branched Alkyl Benzene Sulfonate	Liquid/90%	Calimulse® PR is a high active branched anionic surfactant with great stabilization characteristics. Great compatibility with other surfactants.	Styrene, vinyl acetate, nitrile and acrylic latex manufacture General adhesives, hot melt, pressure sensitive adhesives films, paints, coatings, printing inks and aerosols
Calimulse® PRS	Isopropylamine Linear Alkyl Benzene Sulfonate	Liquid/93%	Calimulse® PRS is a high active linear anionic surfactant with great stabilization and wetting characteristics. Great compatibility with other surfactants. Readily biodegradable.	
Calsoft® F-90	Sodium Linear Alkyl Benzene Sulfonate	Flake/90%	Calsoft® F-90 is a high active and very pure linear anionic sulfonate flake with great wetting and emulsifying properties. Readily biodegradable.	
Calsoft® OS-45S	Sodium Oleic Sulfonate	Liquid/45%	Calsoft® OS-45S is an emulsifier with low foam and excellent wetting characteristics. Biodegradable and derived from natural and renewable resources.	Styrene-butadiene carboxylated latex emulsion polymerization

Emulsion Polymerization

Sulfonic Acids	Calimulse® and Calsoft® sulfonic acids offer higher activity levels compared to sulfonates of choice. Many bases can neutralize these acids to produce a surfactant for emulsion polymerization which present unique and desirable characteristics. VOC alternative and do not contain any halogenated solvents. Perfect choice for APEO alternative formulations.			
Product	**Chemical Name**	**Physical Form/Activity**	**Features/Benefits**	**Application**
Calimulse® EM-95	Branched Dodecyl Benzene Sulfonic Acid	Liquid/95%	Calimulse® EM-95 is a high active branched anionic sulfonic acid with great stability and emulsifying properties. It has a low-sulfuric acid content for conversion to calcium salts.	Styrene, vinyl, acrylic and butadiene carboxylated latex emulsion polymerization
Calimulse® EM-99	Branched Dodecyl Benzene Sulfonic Acid	Liquid/97%	Calimulse® EM-99 is a high active branched anionic sulfonic acid with great stability and emulsifying properties.	
Calsoft® LAS-99	Linear Alkyl Benzene Sulfonic Acid	Liquid/97%	Calsoft® LAS-99 is a high active linear anionic sulfonic acid with good emulsifying properties. Readily biodegradable.	

Industrial Applications

Product	Chemical Name	Physical Form/Activity	Features/Benefits	Application
Aristonic® Acids and Aristonate® Products	Alkyl Aryl Sulfonic Acids and Sulfonates	Liquid/50-90%	Aristonic® and Aristonate® products are consistent oil/water emulsifiers, corrosion inhibitors, demulsifiers and lubricity providers for drilling. Low, medium and high molecular weight products are available featuring highly desirable features in a variety of applications. They can easily replace natural sulfonates.	Ore floatation, enhanced oil recovery, textile, corrosion preventative coating, dielectric fluids and heat transfer fluids, industrial dispersant, textile oils
Calamide® Products	Alkanolamides	Liquid and Dry/100%	Calamide® products are a foam booster, viscosity enhancer, lubricity agent, torque reducer and corrosion inhibitor. They also are an effective emulsification aid.	Corrosion inhibitor, viscosity modifier and foam booster for numerous industrial applications
Calfax® 10L-45	Sodium C10 Linear Diphenyl Oxide Disulfonate	Liquid/45%	Calfax® 10L-45 produces very stable emulsion polymerizations with low foam. Provides excellent stabilization of rubber. Great synergy with polychloroprene.	Agricultural, oilfield, textile, adhesives, emulsion polymerization, glass and tile cleaner, laundry and concrete
Calfax® DB-45	Sodium C12 Branched Diphenyl Oxide Disulfonate	Liquid/45%	Calfax® DB-45 is a good wetting agent and foamer used in high temperature applications. It offers great stability over a wide pH range and high tolerance to highly electrolytic systems.	Agricultural, oilfield, textile, adhesives, emulsion polymerization, glass and tile cleaner
Calfoam® ES-302	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%	Calfoam® ES-302 is a biodegradable foaming agent derived from renewable vegetable resources. It also presents great flash foamer properties with water hardness tolerance.	Industrial foaming agent and detergent
Calimulse® EM-96F	Sodium Branched Alkyl Benzene Sulfonate	Flake/96%	Calimulse® EM-96F is a high active and very pure branched anionic sulfonate non-caking flake with great detergency, wetting and emulsifying properties.	Emulsion polymerization, mold coatings for glass and tires, anti-fungal agent for soap wrap and specialty cleaners
Calimulse® PR	Isopropylamine Branched Alkyl Benzene Sulfonate	Liquid/90%	Calimulse® PR is a high active branched emulsifier, wetting agent, penetrant and dispersant.	Agricultural, oilfield, gas well and textile
Calimulse® PRS	Isopropylamine Linear Alkyl Benzene Sulfonate	Liquid/93%	Calimulse® PRS is a high active linear surfactant with great degreasing, emulsification, wetting and detergent properties.	Fabric pre-spotter, hand cleaner, dry cleaning products and agricultural emulsions
Calsoft® AOS-1245	Sodium C12 Alpha Olefin Sulfonate	Liquid/45%	Calimulse® AOS-1245 is a high flash foamer with great temperature and electrolyte stability. It has high hard/soft water tolerance.	Concrete, gypsum board, dust control, fire fighting foam, oilfield and HI&I applications
Calsoft® AOS-40	Sodium C14-16 Alpha Olefin Sulfonate	Liquid/40%	Calsoft® AOS-40 is a foaming agent with great flash foam properties within a wide pH range.	Concrete, gypsum board, oilfield, dust control, fire fighting foam and agricultural foam marking applications, HI&I
Calsoft® F-90	Sodium Linear Alkyl Benzene Sulfonate	Flake/90%	Calsoft® F-90 is an excellent wetting agent and detergent compound in acid and caustic applications. It has superior rinsing characteristics.	Cement admixture, dairy, sanitation, metal cleaning, ore flotation, metal pickling compounding, dust collection, textile scouring agent
Calsoft® LAS-99	Linear Alkyl Benzene Sulfonic Acid	Liquid/97%	Calsoft® LAS-99 is an excellent high active foaming sulfonic acid which can be neutralized with numerous bases for a variety of foaming products with excellent detergency.	Water treatment, food processing and cleaning, laundry, metal treating and cleaning, dust control, textile, paint stripper and cement admixture

Industrial Applications

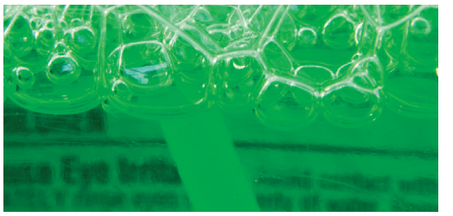
Pilot's products are used for foaming and flotation agents, stable emulsifiers, surface finishing, metal protection, various catalysts, dust suppression and air entrainment. Our unique chemistry solutions support an extensive list of industries from agriculture to metal processing. Many of Pilot's chemicals are CFR 21 and CFR 40 compliant and are available in liquid, dry flake and paste forms.

Product	Chemical Name	Physical Form/Activity	Features/Benefits	Application
Calsoft® OA-50	Oleic Sulfonic Acid	Liquid/50%	Calsoft® OA-50 is great solubilizer and effective wetting agent. Many bases can neutralize Calsoft® OA-50 to produce a surfactant with unique and desirable characteristics.	Food processing cleaner, industrial cleanser, emulsion polymerization and textile
Calsoft® OS-45S	Sodium Oleic Sulfonate	Liquid/45%	Calsoft® OS-45S is a great emulsifier with low foam and excellent wetting characteristics.	Food processing cleaner, industrial cleanser, emulsion polymerization, ore leaching, crystal growth modifier, wastewater flotation, textile
Pilot® D-300	4 Sulfophthalic Acid	Liquid/50%	Pilot® D-300 is the primary component of the preferred electrolyte for the production of hard anodic oxide coatings on aluminum alloys which are highly abrasion resistant and feature many colors. Pilot® D-300 efficiently produces decorative and protective oxide coatings under a wide range of practical operating conditions and cost.	Electrolytic bath additive for the Duranodic aluminum anodizing process, industrial catalyst, corrosion inhibitor and chemical intermediate
Pilot® EM-95	Branched Dodecyl Benzene Sulfonic Acid	Liquid/95%	Pilot® EM-95 is a high active branched anionic sulfonic acid with great stabilization, emulsifying and wetting properties. Low-sulfuric acid content.	Oil field, agriculture, textile and detergent applications
Pilot® EM-99	Branched Dodecyl Benzene Sulfonic Acid	Liquid/97%	Pilot® EM-99 is a high active branched anionic sulfonic acid with great stabilization, emulsifying, wetting and detergency properties.	Oil field, agriculture, textile and detergent applications
Pilot® PTSA-65	p-Toluene Sulfonic Acid	Liquid/65%	Pilot® PTSA-65 is a high-quality clear toluene sulfonic acid with consistent performance.	Catalyst for glacial acrylic acid, thermosetting resins, foundry applications and alkylation processes. Specialty textile chemical
Pilot® PTSA-99	Anhydrous p-Toluene Sulfonic Acid	Paste-Crystals/98%	Pilot® PTSA-99 is an anhydrous, high quality toluene sulfonic acid with a high para isomer content and consistent performance.	Catalyst for thermosetting resins, alkylation processes and polymerization. Intermediate in dye manufacturing and pharmaceutical chemical production

Product CFR Qualifications

Product Name	INCI/Chemical Name	CFR Qualification
Calamide® C	Cocamide DEA	21CFR 175.105
Calamide® CW-100	Cocamide DEA	21CFR 175.105
Calfax® 10L-45	Sodium C10 Linear Diphenyl Oxide Disulfonate	21CFR 178.3400
Calfax® 16L-35	Sodium C16 Linear Diphenyl Oxide Disulfonate	21CFR 178.3400
Calfax® DB-45	Sodium C12 Branched Diphenyl Oxide Disulfonate	21CFR 175.105, 176.170*
Calfoam® ALS-30	Ammonium Lauryl Sulfate	21CFR 176.170*, 176.180*
Calfoam® ALS-70	Ammonium Lauryl Sulfate	21CFR 178.3400
Calimulse® AOS-40	Sodium C14-16 Alpha Olefin Sulfonate	21CFR 175.105
Calimulse® L-30	Sodium Linear Alkyl Benzene Sulfonate	21CFR 178.3400
Calimulse® L-50	Sodium Linear Alkyl Benzene Sulfonate	21CFR 178.3400
Calimulse® PRS	Isopropylamine Linear Alkyl Benzene Sulfonate	21CFR 176.210
Calimulse® SLS	Sodium Lauryl Sulfate	21CFR 176.170*, 176.180*
Calsoft® AOS-40	Sodium C14-16 Olefin Sulfonate	21CFR 175.105
Calsoft® L-50 Slurry	Sodium Linear Alkyl Benzene Sulfonate Slurry	21CFR 178.3400
Calsoft® L-60	Sodium Linear Alkyl Benzene Sulfonate	21CFR 175.105
Calsoft® LAS-99	Linear Alkyl Benzene Sulfonic Acid	21CFR 178.3400
Calsoft® LPS-99	Linear Alkyl Benzene Sulfonic Acid	21CFR 178.3400
Pilot® SXS-40	Sodium Xylene Sulfonate	21CFR 175.105, 176.170*, 176.180*

Index by Product Name



Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Aristonate® C-5000	Alkyl Aryl Sulfonate	Neutral Calcium Sulfonate (EW=515)	Liquid/50%	40
Aristonate® H	Alkyl Aryl Sulfonate	High Molecular Wt. Alkyl Aryl Sulfonate (MW=470)	Liquid/60%	40
Aristonate® L	Alkyl Aryl Sulfonate	Low Molecular Wt. Alkyl Aryl Sulfonate (MW=400)	Liquid/60%	40
Aristonate® M	Alkyl Aryl Sulfonate	Medium Molecular Wt. Alkyl Aryl Sulfonate (MW=430)	Liquid/60%	40
Aristonate® Products				44
Aristonate® S-4000	Alkyl Aryl Sulfonate	Low Molecular Wt. Alkyl Aryl Sulfonate (MW=400)	Liquid/60%	40
Aristonate® S-5000	Alkyl Aryl Sulfonate	Very High Molecular Wt. Alkyl Aryl Sulfonate (MW=500)	Liquid/60%	40
Aristonate® VH-2	Alkyl Aryl Sulfonate	Very High Molecular Wt. Alkyl Aryl Sulfonate (MW=520)	Liquid/60%	40
Aristonic® Acids	Alkyl Aryl Sulfonic Acid	Alkyl Aryl Sulfonic Acid	Liquid/85-90%	32, 44
Calamide® C	Alkanolamide	Cocamide DEA	Liquid/100%	5, 24
Calamide® CW-100	Alkanolamide	Cocamide DEA	Liquid/100%	5
Calamide® MC	Alkanolamide	Cocamide MEA	Flake/100%	5, 24
Calamide® Products	Alkanolamide			32, 44
CalBlend® DF	Performance Blend	Sodium Laureth Sulfate, Sodium Lauryl Sulfate, Cocamidopropyl Betaine, Cocamide MIPA	Liquid/30%	8, 25
CalBlend® ECO-1	Performance Blend	Sodium Lauryl Sulfate, Sodium Laureth Sulfate, Cocamidopropyl Betaine, Cocamide MEA	Liquid/35%	8, 25
CalBlend® MILD	Performance Blend	Sodium Laureth Sulfate, PEG-80 Sorbitan Laurate, Lauramidopropyl Betaine, PEG-150 Distearate	Liquid/30%	8, 25
CalBlend® PC	Performance Blend	Sodium Laureth Sulfate, Cocamidopropyl Betaine, Cocamide DEA, EGMS	Liquid/30%	8
CalBlend® PXS	Performance Blend	Sodium Laureth Sulfate, Sodium Lauryl Sulfate, Glycol Stearate, Cocamidopropyl Betaine, Cocamide MIPA, PEG-46M	Liquid/30%	8, 25
Calfax® 10L-45	Diphenyl Oxide Disulfonate	Sodium C10 Linear Diphenyl Oxide Disulfonate	Liquid/45%	7, 41, 44
Calfax® 16L-35	Diphenyl Oxide Disulfonate	Sodium C16 Linear Diphenyl Oxide Disulfonate	Liquid/35%	7, 40, 41
Calfax® 6LA-70	Diphenyl Oxide Disulfonic Acid	C6 Linear Diphenyl Oxide Disulfonic Acid	Liquid/72%	7, 41
Calfax® DB-45	Diphenyl Oxide Disulfonate	Sodium C12 Branched Diphenyl Oxide Disulfonate	Liquid/45%	7, 36, 40, 41, 44
Calfax® DBA-40	Diphenyl Oxide Disulfonic Acid	C12 Branched Diphenyl Oxide Disulfonic Acid	Liquid/40%	41
Calfax® DBA-70	Diphenyl Oxide Disulfonic Acid	C12 Branched Diphenyl Oxide Disulfonic Acid	Liquid/71%	7, 41

Index by Product Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Calfax® Products		Linear/Branched Diphenyl Oxide Disulfonates and Disulfonic Acids	Liquid/35-70%	7, 32
Calfoam® ALS-30	Alcohol/Ether Sulfate	Ammonium Lauryl Sulfate	Liquid/30%	4, 24
Calfoam® ES-301	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (1 Mole EO)	Liquid/26%	4, 23
Calfoam® ES-302	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%	4, 23, 44
Calfoam® ES-302HS	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%	4, 23
Calfoam® ES-303	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (3 Mole EO)	Liquid/28%	4, 23
Calfoam® ES-562	Alcohol/Ether Sulfate	Sodium Laureth Sulfate	Liquid/60%	4, 23
Calfoam® ES-603	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (3 Mole EO)	Liquid/60%	4
Calfoam® ES-702	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (2 Mole EO)	Liquid/70%	4, 23
Calfoam® ES-702LD	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (2 Mole EO)	Liquid/70%	4, 23
Calfoam® ES-703	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (3 Mole EO)	Liquid/70%	4, 23
Calfoam® TLS-40	Alcohol/Ether Sulfate	TEA Lauryl Sulfate	Liquid/40%	5, 24
Calimulse® AOS	Sulfonate	Sodium C14-16 Alpha Olefin Sulfonate	Liquid/40%	42
Calimulse® EM-22	Alkyl Benzene Sulfonate	Sodium Branched Alkyl Benzene Sulfonate	Liquid/22%	42
Calimulse® EM-95	Alkyl Benzene Sulfonic Acid	Branched Dodecyl Benzene Sulfonic Acid	Liquid/95%	43
Calimulse® EM-96F	Alkyl Benzene Sulfonate	Sodium Branched Alkyl Benzene Sulfonate	Flake/96%	42, 44
Calimulse® EM-99	Alkyl Benzene Sulfonic Acid	Branched Dodecyl Benzene Sulfonic Acid	Liquid/97%	32, 43
Calimulse® L-22	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Liquid/22%	42
Calimulse® L-30	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Liquid/30%	42
Calimulse® L-50	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Paste/50%	42
Calimulse® PR	Alkyl Benzene Sulfonate	Isopropylamine Branched Alkyl Benzene Sulfonate	Liquid/90%	32, 42, 44
Calimulse® PRS	Alkyl Benzene Sulfonate	Isopropylamine Linear Alkyl Benzene Sulfonate	Liquid/93%	6, 32, 42, 44
Calimulse® SLS	Alcohol/Ether Sulfate	Sodium Lauryl Sulfate	Liquid/30%	41
Calinate® LE	Mild Specialty	Disodium Laureth Sulfosuccinate	Liquid/40%	14, 26
Caloxamine® CPO	Mild Specialty	Cocamidopropylamine Oxide	Liquid/32%	11, 27

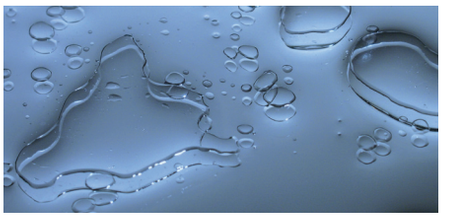
Index by Product Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Caloxamine® LO	Mild Specialty	Lauramine Oxide	Liquid/30%	11, 27, 36
Calsoft® AOS-1245	Sulfonate	Sodium C12 Alpha Olefin Sulfonate	Liquid/45%	6, 36, 44
Calsoft® AOS-40	Sulfonate	Sodium C14-16 Alpha Olefin Sulfonate	Liquid/40%	6, 26, 32, 44
Calsoft® AOS-FS	Sulfonate	Sodium C14-16 Olefin Sulfonate	Liquid/43%	6, 45
Calsoft® F-90	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Flake/90%	6, 32, 42
Calsoft® L-50 Slurry	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate Slurry	Slurry/50%	6
Calsoft® L-60	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Paste/60%	6
Calsoft® LAS-99	Alkyl Benzene Sulfonic Acid	Linear Alkyl Benzene Sulfonic Acid	Liquid/97%	6, 32, 43, 45
Calsoft® LPS-99	Alkyl Benzene Sulfonic Acid	Linear Alkyl Benzene Sulfonic Acid	Liquid/97%	6
Calsoft® OA-50	Sulfonic Acid	Oleic Sulfonic Acid	Liquid/50%	45
Calsoft® OS-45S	Sulfonate	Sodium Oleic Sulfonate	Liquid/45%	40, 42, 45
Calsoft® P-85	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Flake/85%	6
Calsoft® T-60	Alkyl Benzene Sulfonate	Triethanolamine Dodecylbenzene Sulfonate	Liquid/60%	6, 26
Calsuds® 81	Performance Concentrate	Proprietary Concentrated Detergent Blend	Liquid/60%	8
Calsuds® A	Performance Concentrate	Proprietary Concentrated Detergent Blend	Liquid/50%	8
Calsuds® CD-6	Performance Concentrate	Proprietary Modified Coconut Diethanolamide	Liquid/100%	8
Caltaine® C-35	Mild Specialty	Cocamidopropyl Betaine	Liquid/30%	14, 28, 32
Enhansys® CG-100	Preservative and Preservative Alternative	Caprylyl Glycol	Liquid/Solid 100%	29
Enhansys® M-100	Preservative and Preservative Alternative	Glycereth-2 Cocoate & Benzoic Acid	Liquid/100%	29
Macare™ G-2C	Specialty	Glycereth Cocoate	Liquid/100%	29
Macare™ HP-230	Specialty	Acrylates Copolymer	Liquid/100%	30
Macare™ OP	Specialty	Ethylhexyl Palmitate	Liquid/100%	29
Macare™ OP	Specialty	Ethylhexyl Palmitate	Liquid/100%	29
Macat® AEC-8964	Specialty	Capryleth-9 Carboxylic Acid & Hexeth-4 Carboxylic Acid	Liquid/87%	15, 26
Macat® AO-10	Amines	Decyl Dimethylamine Oxide	Liquid/30%	12, 36
Macat® AO-12	Amines	Lauryl Dimethylamine Oxide	Liquid/30%	12, 27

Index by Product Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Macat® AO-12-2	Amines	Dihydroxyethyl Cocamine Oxide	Liquid/30%	12, 27
Macat® AO-14	Amines	Myristamine Oxide	Liquid/30%	27
Macat® AO-18:1	Amines	Oleamine Oxide	Liquid-Gel/30%	12, 27
Macat® AO-8	Amines	Octyl Dimethylamine Oxide	Liquid/30% or 40%	12
Macat® BD	Amines	Behenamidopropyl Dimethylamine	Pastille/100%	27
Macat® CAP-HS	Betaines/ Sultaines	Cocamidopropyl Hydroxysultaine	Liquid/44%	14, 28
Macat® DOSS	Specialty	Dioctyl Sodium Sulfosuccinate	Liquid/70%	32
Macat® DOSS-70MSO	Specialty	Sodium Dioctyl Sulfosuccinate	Liquid/70%	14
Macat® DOSS-70PG S	Specialty	Sodium Dioctyl Sulfosuccinate	Liquid/75%	14
Macat® DOSS-75E	Specialty	Sodium Dioctyl Sulfosuccinate	Liquid/70%	14
Macat® LB	Betaines/ Sultaines	Lauryl Betaine	Liquid/30%	13, 28, 36
Macat® LCB	Betaines	Lauryl/Cetyl Alkyl Betaines	Liquid/30%	13
Macat® LFB	Betaines/ Sultaines	Capryl/Capramidopropyl Betaine	Liquid/30%	13, 28, 36
Macat® LHS	Betaines	Lauryl Hydroxysultaine	Liquid/42%	14, 28, 36
Macat® LB	Betaines/ Sultaines	Lauryl Betaine	Liquid/30%	13, 28, 36
Macat® LCB	Betaines	Lauryl/Cetyl Alkyl Betaines	Liquid/30%	13
Macat® LFB	Betaines/ Sultaines	Capryl/Capramidopropyl Betaine	Liquid/30%	13, 28, 36
Macat® LHS	Betaines	Lauryl Hydroxysultaine	Liquid/42%	14, 28, 36
Macat® LMAB	Specialty	Lauryl/Myristyl Amidopropyldimethyl Betaine	Liquid/30%	36
Macat® MCO	Amines	C12-18 Alkyldimethyl Amine N-Oxides	Liquid/30%	13, 27
Macat® OB	Betaines/ Sultaines	Oleyl Betaine	Liquid/28%	28
Macat® Ultra CDO	Amines	Cocamidopropylamine Oxide	Liquid/32%	13, 27, 36
Macat® Ultra CG	Betaines/ Sultaines	Cocamidopropyl Betaine	Liquid/30%	13, 28
Macat® Ultra LMDO	Amines	Lauramidopropylamine Oxide	Liquid/30%	13, 27

Index by Product Name



Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Maguard® 5626	Peroxyacetic Acid & Hydrogen Peroxide		Liquid	35
Maguard® H-55	Preservative and Preservative Alternative	DMDM Hydantoin	Liquid/55%	29
Maquat® 10:15	Biocides	Glutaraldehyde Alkyl dimethyl benzyl ammonium chloride	Liquid/25%	35
Maquat® 1010N-25:12	Biocides	Glutaraldehyde Didecyl dimethyl ammonium chloride	Liquid/38%	33
Maquat® 12:3	Biocides	Glutaraldehyde, Alkyl dimethyl benzyl ammonium chloride, Didecyl dimethyl ammonium chloride	Liquid/15.5%	34
Maquat® 1412-40:10	Biocides	Glutaraldehyde Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	35
Maquat® 25:12	Biocides	Glutaraldehyde, Alkyl dimethyl benzyl ammonium chloride, Didecyl dimethyl ammonium chloride	Liquid/38%	34
Maquat® 25:12A (Winterized)	Biocides	Glutaraldehyde, Alkyl dimethyl benzyl ammonium chloride, Didecyl dimethyl ammonium chloride	Liquid/38%	34
Maquat® MC1412-20%-S&W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/20%	34
Maquat® 40:10	Biocides	Glutaraldehyde, Alkyl dimethyl benzyl ammonium chloride, Didecyl dimethyl ammonium chloride	Liquid/50%	34
Maquat® 40:10	Biocides	Glutaraldehyde, Alkyl dimethyl benzyl ammonium chloride, Didecyl dimethyl ammonium chloride	Liquid/50%	34
Maquat® 4450-10% - S&W	Biocides	Didecyl dimethyl ammonium chloride	Liquid/10%	33
Maquat® 4450-CT	Biocides	Didecyl dimethyl ammonium chloride	Liquid/50%	33
Maquat® 4450-CTE (Winterized)	Biocides	Didecyl dimethyl ammonium chloride	Liquid/50%	33
Maquat® 4450-CTI (Winterized)	Biocides	Didecyl dimethyl ammonium chloride	Liquid/50%	33
Maquat® 4450-CTM (Winterized)	Biocides	Didecyl dimethyl ammonium chloride	Liquid/50%	33
Maquat® 5:10	Biocides	Glutaraldehyde Alkyl dimethyl benzyl ammonium chloride	Liquid/15%	35
Maquat® 7.5M	Biocides	Dimethyl benzyl ammonium chloride/Dioctyl, Didecyl, Octyldecyl ammonium chloride	Liquid/7.5%	33
Maquat® 710M	Biocides	Dimethyl benzyl ammonium chloride/Dioctyl, Didecyl, Octyldecyl ammonium chloride	Liquid/10%	33
Maquat® 750M	Biocides	Dimethyl benzyl ammonium chloride/Dioctyl, Didecyl, Octyldecyl ammonium chloride	Liquid/50%	33
Maquat® BTMC-85	Alkyl Trimethyl Ammonium Chlorides	Behentrimonium Chloride	Flake/80%	30
Maquat® BTMC-85	Alkyl Trimethyl Ammonium Chlorides	Behentrimonium Chloride	Flake/80%	30
Maquat® C-15	Alkyl Dimethyl Benzyl Ammonium Chlorides	PEG-15 Cocomonium Chloride	Liquid/95%	10, 30, 38
Maquat® C-2	Cationic Surfactants	Coco bis (2-hydroxyethyl) methylammonium Chloride	Liquid/75%	10, 37

Index by Product Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Maquat® CETAC	Corrosion Inhibitor	Hexadecyl trimethyl ammonium chloride	Liquid/30%	38
Maquat® CETAC-30%	Alkyl Trimethyl Ammonium Chlorides	Cetrimonium Chloride	Liquid/30%	30
Maquat® DSC-75PG	Corrosion Inhibitor	Dimethyl dioctadecyl ammonium chloride	Paste/75%	38
Maquat® FD-2003	Cationic Surfactants	Granular Floor Deodorizer	Solid Granular/100%	10
Maquat® LATAC	Corrosion Inhibitor	Dodecyl trimethyl ammonium chloride	Liquid/30%	38
Maquat® LC12S-NT		Alkyl dimethyl benzyl ammonium chloride		35
Maquat® MC1412-10%-W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/10%	34
Maquat® MC1412-16%-W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/16%	34
Maquat® MC1412-40%-S&W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/40%	34
Maquat® MC1412-50%-W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	34
Maquat® MC1412-PS	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/80%	34
Maquat® MC1416-10% CTP	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/10%	34
Maquat® MC1416-40% CTP	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/40%	34
Maquat® MC1416-FB	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	34
Maquat® MC1416-V	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	34
Maquat® OAC	Alkyl Dimethyl Benzyl Ammonium Chlorides	Olealkonium Chloride	Liquid/50%	30, 38
Maquat® PQ-100 Series	Specialty	Polymethacrylamidopropyl Trimonium Chloride	Liquid/30%	31
Maquat® PQ-200 Series	Specialty	Polyquaternium 37	Liquid/30%	31
Maquat® Q-50S	Corrosion Inhibitor	Soy amidopropyl ammonium chloride	Liquid/50%	38
Maquat® QSX-105 S	Cationic Surfactants	Stabilized Organosilane Quaternary Ammonium Compound	Liquid/5%	10
Maquat® SC1632	Alkyl Dimethyl Benzyl Ammonium Chlorides	Cetearyl Alcohol, PEG 40 Castor Oil, Stearalkonium Chloride	Flake/14%	30
Maquat® SC18	Alkyl Dimethyl Benzyl Ammonium Chlorides	Stearalkonium Chloride	Paste/Flake/25%/85%	30

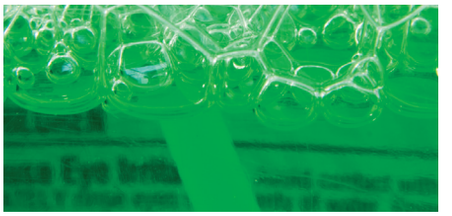
Index by Product Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Maquat® SL-5	Specialty	Dihydroxypropyl PEG-5 Linoleammonium Chloride	Liquid/40%	31
Maquat® SOY-QSX	Specialty	Soy Trimethoxysilylpropyldimonium Chloride	Liquid/80%	31
Maquat® T-15	Corrosion Inhibitor	Tallow alkyl methyl PEG-15 ammonium chloride	Liquid/95%	38
Masamide® R-4	Alkanolamides	PEG-4 Rapeseedamide	Liquid/90%	5, 24
Masamide® REP	Performance Blend	Surfactant Blend	Liquid/36%	5, 25
Masodol® 1-3	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	16, 39
Masodol® 1-7	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	16, 39
Masodol® 25-7	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	16, 39
Masodol® 25-9	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	16
Masodol® 900	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/95%	16
Masodol® 91-2.5	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	17, 39
Masodol® 91-6	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	17
Masodol® 91-8	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	17
Mason® CS EBC50 / EBC80	Cationic Surfactants	Cationic Surfactant Blend	Liquid/50%/80%	11
Mason® CS-050	Corrosion Inhibitor	Dialkyl dimethyl ammonium chloride blend	Liquid/50%	37
Mason® CS-125	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	11, 37
Mason® CS-15M	Cationic Surfactants	"Fifth Generation" Quaternary Ammonium Blend	Liquid/50%	10, 37
Mason® CS-24M	Cationic Surfactants	"Fifth Generation" Quaternary Ammonium Blend	Liquid/80%	10, 37
Mason® CS-24M / CS-15M	Cationic Surfactants	"Fifth Generation" Quaternary Ammonium Blend	Liquid/50%/80%	10
Mason® CS-405	Corrosion Inhibitor	Dialkyl dimethyl ammonium chloride blend	Liquid/50%	37
Mason® CS-408	Corrosion Inhibitor	Dialkyl dimethyl ammonium chloride blend	Liquid/80%	37
Mason® CS-424	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/40%	37
Mason® CS-425	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	11, 37
Mason® CS-428	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/80%	11, 37
Mason® CS-428EG	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/80%	11

Index by Product Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Mason® CS-445 / CS-448	Specialty	Didecyldimonium Chloride	Liquid/50%/80%	31, 37
Mason® CS-465	Corrosion Inhibitor	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	37
Mason® CS-468	Corrosion Inhibitor	Alkyl dimethyl benzyl ammonium chloride	Liquid/80%	37
Masoteric™ 160C-30	Specialty	Sodium Lauriminodipropionate	Liquid/30%	15, 26
Masoteric™ C-2SF	Specialty	Disodium Cocoamphodipropionate	Liquid/38%	15
Masurf® NF-10	Specialty	High Alkaline Stable Low Foam Surfactant	Liquid/50%	15
Masurf® NF-25				15
Masurf® SP-535, SP-535A	Polymer	Anionic Polymers StayClean™ Anti-Spoiling Agents	Liquid/40%	9
Masurf® SP-925	Polymer	Anionic Polymers StayClean™ Hard Surface Protector	Liquid/25%	9
Masurf® UV-150	UV Protectant	Benzotriazole Based Products UV Absorbers for Textiles and Hard Surfaces	Liquid/55%	9
Pilot® D-300	Specialty	4 Sulfophthalic Acid	Liquid/50%	45
Pilot® DABSA	Sulfonic Acid	Alkyl Aryl Sulfonic Acid	Liquid/80%	32, 39
Pilot® EM-95	Alkyl Benzene Sulfonic Acid	Branched Dodecyl Benzene Sulfonic Acid	Liquid/90%	45
Pilot® EM-99	Alkyl Benzene Sulfonic Acid	Branched Dodecyl Benzene Sulfonic Acid	Liquid/95%	45
Pilot® PTSA-65	Sulfonic Acid	p-Toluene Sulfonic Acid	Liquid/65%	7, 45
Pilot® PTSA-99	Sulfonic Acid	Anhydrous p-Toluene Sulfonic Acid	Paste-Crystals/98%	45
Pilot® SXS-40	Sulfonate	Sodium Xylene Sulfonate	Liquid/40%	7, 39

Index by INCI/Chemical Name



Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Mason® CS-15M	Cationic Surfactants	"Fifth Generation" Quaternary Ammonium Blend	Liquid/50%	10, 37
Mason® CS-24M	Cationic Surfactants	"Fifth Generation" Quaternary Ammonium Blend	Liquid/80%	10, 37
Mason® CS-24M / CS-15M	Cationic Surfactants	"Fifth Generation" Quaternary Ammonium Blend	Liquid/50%/80%	10
Pilot® D-300	Specialty	4 Sulfophthalic Acid	Liquid/50%	45
Macare™ HP-230	Specialty	Acrylates Copolymer	Liquid/100%	30
Masodol® 1-3	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	16, 39
Masodol® 1-7	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	16, 39
Masodol® 25-7	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	16, 39
Masodol® 25-9	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	16
Masodol® 900	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/95%	16
Masodol® 91-2.5	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	17, 39
Masodol® 91-6	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	17
Masodol® 91-8	Alcohol Ethoxylates	Alcohol Ethoxylates	Liquid/100%	17
Aristonic® Acids	Alkyl Aryl Sulfonic Acid	Alkyl Aryl Sulfonic Acid	Liquid/85-90%	32, 44
Pilot® DABSA	Sulfonic Acid	Alkyl Aryl Sulfonic Acid	Liquid/80%	32, 39
Mason® CS-125	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	11, 37
Mason® CS-425	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	11, 37
Mason® CS-428	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/80%	11, 37
Mason® CS-428EG	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/80%	11
Maquat® MC1412-10%-W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/10%	34
Maquat® MC1412-16%-W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/16%	34
Maquat® MC1412-20%-S&W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/20%	34
Maquat® MC1412-40%-S&W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/40%	34
Maquat® MC1412-50%-W	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	34
Maquat® MC1412-PS	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/80%	34

Index by INCI/Chemical Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Maquat® MC1416-10% CTP	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/10%	34
Maquat® MC1416-40% CTP	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/40%	34
Maquat® MC1416-FB	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	34
Maquat® MC1416-V	Biocides	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	34
Mason® CS-424	Cationic Surfactants	Alkyl dimethyl benzyl ammonium chloride	Liquid/40%	37
Mason® CS-465	Corrosion Inhibitor	Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	37
Mason® CS-468	Corrosion Inhibitor	Alkyl dimethyl benzyl ammonium chloride	Liquid/80%	37
Calfoam® ALS-30	Alcohol/Ether Sulfate	Ammonium Lauryl Sulfate	Liquid/30%	4, 24
Pilot® PTSA-99	Sulfonic Acid	Anhydrous p-Toluene Sulfonic Acid	Paste-Crystals/98%	45
Masurf® SP-535, SP-535A	Polymer	Anionic Polymers StayClean™ Anti-Spoiling Agents	Liquid/40%	9
Masurf® SP-925	Polymer	Anionic Polymers StayClean™ Hard Surface Protector	Liquid/25%	9
Macat® BD	Amines	Behenamidopropyl Dimethylamine	Pastille/100%	27
Maquat® BTMC-85	Alkyl Trimethyl Ammonium Chlorides	Behentrimonium Chloride	Flake/80%	30
Masurf® UV-150	UV Protectant	Benzotriazole Based Products UV Absorbers for Textiles and Hard Surfaces	Liquid/55%	9
Calimulse® EM-99	Alkyl Benzene Sulfonic Acid	Branched Dodecyl Benzene Sulfonic Acid	Liquid/97%	32, 43
Calimulse® EM-95	Alkyl Benzene Sulfonic Acid	Branched Dodecyl Benzene Sulfonic Acid	Liquid/95%	43
Pilot® EM-95	Alkyl Benzene Sulfonic Acid	Branched Dodecyl Benzene Sulfonic Acid	Liquid/90%	45
Pilot® EM-99	Alkyl Benzene Sulfonic Acid	Branched Dodecyl Benzene Sulfonic Acid	Liquid/95%	45
Calfax® DBA-70	Diphenyl Oxide Disulfonic Acid	C12 Branched Diphenyl Oxide Disulfonic Acid	Liquid/71%	7, 41
Calfax® DBA-40	Diphenyl Oxide Disulfonic Acid	C12 Branched Diphenyl Oxide Disulfonic Acid	Liquid/40%	41
Macat® MCO	Amines	C12-18 Alkyldimethyl Amine N-Oxides	Liquid/30%	13, 27
Calfax® 6LA-70	Diphenyl Oxide Disulfonic Acid	C6 Linear Diphenyl Oxide Disulfonic Acid	Liquid/72%	7, 41
Macat® LFB	Betaines/ Sultaines	Capryl/Capramidopropyl Betaine	Liquid/30%	13, 28, 36
Macat® AEC-8964	Specialty	Capryleth-9 Carboxylic Acid & Hexeth-4 Carboxylic Acid	Liquid/87%	15, 26

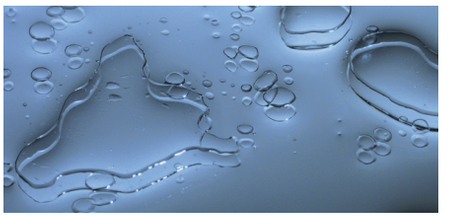
Index by INCI/Chemical Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Enhansys® CG-100	Preservative and Preservative Alternative	Caprylyl Glycol	Liquid/Solid 100%	29
Mason® CS EBC50 / EBC80	Cationic Surfactants	Cationic Surfactant Blend	Liquid/50%/80%	11
Maquat® SC1632	Alkyl Dimethyl Benzyl Ammonium Chlorides	Cetearyl Alcohol, PEG 40 Castor Oil, Stearalkonium Chloride	Flake/14%	30
Maquat® CETAC-30%	Alkyl Trimethyl Ammonium Chlorides	Cetrimonium Chloride	Liquid/30%	30
Calamide® C	Alkanolamide	Cocamide DEA	Liquid/100%	5, 24
Calamide® CW-100	Alkanolamide	Cocamide DEA	Liquid/100%	5
Calamide® MC	Alkanolamide	Cocamide MEA	Flake/100%	5, 24
Macat® Ultra CG	Betaines/ Sultaines	Cocamidopropyl Betaine	Liquid/30%	13, 28
Caltaine® C-35	Mild Specialty	Cocamidopropyl Betaine	Liquid/30%	14, 28, 32
Macat® CAP-HS	Betaines/ Sultaines	Cocamidopropyl Hydroxysultaine	Liquid/44%	14, 28
Caloxamine® CPO	Mild Specialty	Cocamidopropylamine Oxide	Liquid/32%	11, 27
Macat® Ultra CDO	Amines	Cocamidopropylamine Oxide	Liquid/32%	13, 27, 36
Maquat® C-2	Cationic Surfactants	Coco bis (2-hydroxyethyl) methylammonium Chloride	Liquid/75%	10, 37
Macat® AO-10	Amines	Decyl Dimethylamine Oxide	Liquid/30%	12, 36
Mason® CS-050	Corrosion Inhibitor	Dialkyl dimethyl ammonium chloride blend	Liquid/50%	37
Mason® CS-405	Corrosion Inhibitor	Dialkyl dimethyl ammonium chloride blend	Liquid/50%	37
Maquat® 4450-10% - S&W	Biocides	Didecyl dimethyl ammonium chloride	Liquid/10%	33
Maquat® 4450-CT	Biocides	Didecyl dimethyl ammonium chloride	Liquid/50%	33
Maquat® 4450-CTE (Winterized)	Biocides	Didecyl dimethyl ammonium chloride	Liquid/50%	33
Maquat® 4450-CTI (Winterized)	Biocides	Didecyl dimethyl ammonium chloride	Liquid/50%	33
Maquat® 4450-CTM (Winterized)	Biocides	Didecyl dimethyl ammonium chloride	Liquid/50%	33
Mason® CS-445 / CS-448	Specialty	Didecyldimonium Chloride	Liquid/50%/80%	31, 37
Macat® AO-12-2	Amines	Dihydroxyethyl Cocamine Oxide	Liquid/30%	12, 27
Maquat® SL-5	Specialty	Dihydroxypropyl PEG-5 Linoleammonium Chloride	Liquid/40%	31

Index by INCI/Chemical Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Maquat® 7.5M	Biocides	Dimethyl benzyl ammonium chloride/Dioctyl, Didecyl, Octyldecyl ammonium chloride	Liquid/7.5%	33
Maquat® 710M	Biocides	Dimethyl benzyl ammonium chloride/Dioctyl, Didecyl, Octyldecyl ammonium chloride	Liquid/10%	33
Maquat® 750M	Biocides	Dimethyl benzyl ammonium chloride/Dioctyl, Didecyl, Octyldecyl ammonium chloride	Liquid/50%	33
Maquat® DSC-75PG	Corrosion Inhibitor	Dimethyl dioctadecyl ammonium chloride	Paste/75%	38
Macat® DOSS	Specialty	Dioctyl Sodium Sulfosuccinate	Liquid/70%	32
Masoteric™ C-2SF	Specialty	Disodium Cocoamphodipropionate	Liquid/38%	15
Calinate® LE	Mild Specialty	Disodium Laureth Sulfosuccinate	Liquid/40%	14, 26
Maguard® H-55	Preservative and Preservative Alternative	DMDM Hydantoin	Liquid/55%	29
Maquat® LATAC	Corrosion Inhibitor	Dodecyl trimethyl ammonium chloride	Liquid/30%	38
Macare™ OP	Specialty	Ethylhexyl Palmitate	Liquid/100%	29
Maquat® 5:10	Biocides	Glutaraldehyde Alkyl dimethyl benzyl ammonium chloride	Liquid/15%	35
Maquat® 10:15	Biocides	Glutaraldehyde Alkyl dimethyl benzyl ammonium chloride	Liquid/25%	35
Maquat® 1412-40:10	Biocides	Glutaraldehyde Alkyl dimethyl benzyl ammonium chloride	Liquid/50%	35
Maquat® 1010N-25:12	Biocides	Glutaraldehyde Didecyl dimethyl ammonium chloride	Liquid/38%	33
Maquat® 12:3	Biocides	Glutaraldehyde, Alkyl dimethyl benzyl ammonium chloride, Didecyl dimethyl ammonium chloride	Liquid/15.5%	34
Maquat® 25:12	Biocides	Glutaraldehyde, Alkyl dimethyl benzyl ammonium chloride, Didecyl dimethyl ammonium chloride	Liquid/38%	34
Maquat® 25:12A (Winterized)	Biocides	Glutaraldehyde, Alkyl dimethyl benzyl ammonium chloride, Didecyl dimethyl ammonium chloride	Liquid/38%	34
Maquat® 40:10	Biocides	Glutaraldehyde, Alkyl dimethyl benzyl ammonium chloride, Didecyl dimethyl ammonium chloride	Liquid/50%	34
Macare™ G-2C	Specialty	Glycereth Cocoate	Liquid/100%	29
Enhansys® M-100	Preservative and Preservative Alternative	Glycereth-2 Cocoate & Benzoic Acid	Liquid/100%	29
Maquat® FD-2003	Cationic Surfactants	Granular Floor Deodorizer	Solid Granular/100%	10
Maquat® CETAC	Corrosion Inhibitor	Hexadecyl trimethyl ammonium chloride	Liquid/30%	38
Masurf® NF-10	Specialty	High Alkaline Stable Low Foam Surfactant	Liquid/50%	15
Aristonate® H	Alkyl Aryl Sulfonate	High Molecular Wt. Alkyl Aryl Sulfonate (MW=470)	Liquid/60%	40

Index by INCI/Chemical Name



Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Calimulse® PR	Alkyl Benzene Sulfonate	Isopropylamine Branched Alkyl Benzene Sulfonate	Liquid/90%	32, 42, 44
Calimulse® PRS	Alkyl Benzene Sulfonate	Isopropylamine Linear Alkyl Benzene Sulfonate	Liquid/93%	6, 32, 42, 44
Macat® Ultra LMDO	Amines	Lauramidopropylamine Oxide	Liquid/30%	13, 27
Caloxamine® LO	Mild Specialty	Lauramine Oxide	Liquid/30%	11, 27, 36
Macat® LB	Betaines/ Sultaines	Lauryl Betaine	Liquid/30%	13, 28, 36
Macat® AO-12	Amines	Lauryl Dimethylamine Oxide	Liquid/30%	12, 27
Macat® LHS	Betaines	Lauryl Hydroxysultaine	Liquid/42%	14, 28, 36
Macat® LCB	Betaines	Lauryl/Cetyl Alkyl Betaines	Liquid/30%	13
Macat® LMAB	Specialty	Lauryl/Myristyl Amidopropyldimethyl Betaine	Liquid/30%	36
Calsoft® LAS-99	Alkyl Benzene Sulfonic Acid	Linear Alkyl Benzene Sulfonic Acid	Liquid/97%	6, 32, 43, 45
Calsoft® LPS-99	Alkyl Benzene Sulfonic Acid	Linear Alkyl Benzene Sulfonic Acid	Liquid/97%	6
Calfax® Products		Linear/Branched Diphenyl Oxide Disulfonates and Disulfonic Acids	Liquid/35-70%	7, 32
Aristonate® L	Alkyl Aryl Sulfonate	Low Molecular Wt. Alkyl Aryl Sulfonate (MW=400)	Liquid/60%	40
Aristonate® S-4000	Alkyl Aryl Sulfonate	Low Molecular Wt. Alkyl Aryl Sulfonate (MW=400)	Liquid/60%	40
Aristonate® M	Alkyl Aryl Sulfonate	Medium Molecular Wt. Alkyl Aryl Sulfonate (MW=430)	Liquid/60%	40
Macat® AO-14	Amines	Myristamine Oxide	Liquid/30%	27
Aristonate® C-5000	Alkyl Aryl Sulfonate	Neutral Calcium Sulfonate (EW=515)	Liquid/50%	40
Macat® AO-8	Amines	Octyl Dimethylamine Oxide	Liquid/30% or 40%	12
Maquat® OAC	Alkyl Dimethyl Benzyl Ammonium Chlorides	Olealkonium Chloride	Liquid/50%	30, 38
Macat® AO-18:1	Amines	Oleamine Oxide	Liquid-Gel/30%	12, 27
Calsoft® OA-50	Sulfonic Acid	Oleic Sulfonic Acid	Liquid/50%	45
Macat® OB	Betaines/ Sultaines	Oleyl Betaine	Liquid/28%	28
Maquat® C-15	Alkyl Dimethyl Benzyl Ammonium Chlorides	PEG-15 Cocomonium Chloride	Liquid/95%	10, 30, 38
Masamide® R-4	Alkanolamides	PEG-4 Rapeseedamide	Liquid/90%	5, 24

Index by INCI/Chemical Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Maquat® PQ-100 Series	Specialty	Polymethacrylamidopropyl Trimonium Chloride	Liquid/30%	31
Maquat® PQ-200 Series	Specialty	Polyquaternium 37	Liquid/30%	31
Calsuds® 81	Performance Concentrate	Proprietary Concentrated Detergent Blend	Liquid/60%	8
Calsuds® A	Performance Concentrate	Proprietary Concentrated Detergent Blend	Liquid/50%	8
Calsuds® CD-6	Performance Concentrate	Proprietary Modified Coconut Diethanolamide	Liquid/100%	8
Pilot® PTSA-65	Sulfonic Acid	p-Toluene Sulfonic Acid	Liquid/65%	7, 45
Calimulse® EM-22	Alkyl Benzene Sulfonate	Sodium Branched Alkyl Benzene Sulfonate	Liquid/22%	42
Calimulse® EM-96F	Alkyl Benzene Sulfonate	Sodium Branched Alkyl Benzene Sulfonate	Flake/96%	42, 44
Calfax® 10L-45	Diphenyl Oxide Disulfonate	Sodium C10 Linear Diphenyl Oxide Disulfonate	Liquid/45%	7, 41, 44
Calsoft® AOS-1245	Sulfonate	Sodium C12 Alpha Olefin Sulfonate	Liquid/45%	6, 36, 44
Calfax® DB-45	Diphenyl Oxide Disulfonate	Sodium C12 Branched Diphenyl Oxide Disulfonate	Liquid/45%	7, 36, 40, 41, 44
Calsoft® AOS-40	Sulfonate	Sodium C14-16 Alpha Olefin Sulfonate	Liquid/40%	6, 26, 32, 44
Calimulse® AOS	Sulfonate	Sodium C14-16 Alpha Olefin Sulfonate	Liquid/40%	42
Calsoft® AOS-FS	Sulfonate	Sodium C14-16 Olefin Sulfonate	Liquid/43%	6, 45
Calfax® 16L-35	Diphenyl Oxide Disulfonate	Sodium C16 Linear Diphenyl Oxide Disulfonate	Liquid/35%	7, 40, 41
Macat® DOSS-70MSO	Specialty	Sodium Dioctyl Sulfosuccinate	Liquid/70%	14
Macat® DOSS-70PG S	Specialty	Sodium Dioctyl Sulfosuccinate	Liquid/75%	14
Macat® DOSS-75E	Specialty	Sodium Dioctyl Sulfosuccinate	Liquid/70%	14
Calfoam® ES-562	Alcohol/Ether Sulfate	Sodium Laureth Sulfate	Liquid/60%	4, 23
Calfoam® ES-301	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (1 Mole EO)	Liquid/26%	4, 23
Calfoam® ES-302	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%	4, 23, 44
Calfoam® ES-302HS	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (2 Mole EO)	Liquid/27%	4, 23
Calfoam® ES-702	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (2 Mole EO)	Liquid/70%	4, 23
Calfoam® ES-702LD	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (2 Mole EO)	Liquid/70%	4, 23

Index by INCI/Chemical Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Calfoam® ES-303	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (3 Mole EO)	Liquid/28%	4, 23
Calfoam® ES-603	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (3 Mole EO)	Liquid/60%	4
Calfoam® ES-703	Alcohol/Ether Sulfate	Sodium Laureth Sulfate (3 Mole EO)	Liquid/70%	4, 23
CalBlend® PC	Performance Blend	Sodium Laureth Sulfate, Cocamidopropyl Betaine, Cocamide DEA, EGMS	Liquid/30%	8
CalBlend® MILD	Performance Blend	Sodium Laureth Sulfate, PEG-80 Sorbitan Laurate, Lauramidopropyl Betaine, PEG-150 Distearate	Liquid/30%	8, 25
Masoteric™ 160C-30	Specialty	Sodium Lauriminodipropionate	Liquid/30%	15, 26
Calimulse® SLS	Alcohol/Ether Sulfate	Sodium Lauryl Sulfate	Liquid/30%	41
CalBlend® ECO-1	Performance Blend	Sodium Lauryl Sulfate, Sodium Laureth Sulfate, Cocamidopropyl Betaine, Cocamide MEA	Liquid/35%	8, 25
Calsoft® F-90	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Flake/90%	6, 32, 42
Calsoft® L-60	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Paste/60%	6
Calsoft® P-85	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Flake/85%	6
Calimulse® L-22	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Liquid/22%	42
Calimulse® L-30	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Liquid/30%	42
Calimulse® L-50	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate	Paste/50%	42
Calsoft® L-50 Slurry	Alkyl Benzene Sulfonate	Sodium Linear Alkyl Benzene Sulfonate Slurry	Slurry/50%	6
Calsoft® OS-45S	Sulfonate	Sodium Oleic Sulfonate	Liquid/45%	40, 42, 45
Pilot® SXS-40	Sulfonate	Sodium Xylene Sulfonate	Liquid/40%	7, 39
Maquat® Q-50S	Corrosion Inhibitor	Soy amidopropyl ammonium chloride	Liquid/50%	38
Maquat® SOY-QSX	Specialty	Soy Trimethoxysilylpropyldimonium Chloride	Liquid/80%	31
Maquat® QSX-105 S	Cationic Surfactants	Stabilized Organosilane Quaternary Ammonium Compound	Liquid/5%	10
Maquat® SC18	Alkyl Dimethyl Benzyl Ammonium Chlorides	Stearalkonium Chloride	Paste/Flake/25%/85%	30
Masamide® REP	Performance Blend	Surfactant Blend	Liquid/36%	5, 25
Maquat® T-15	Corrosion Inhibitor	Tallow alkyl methyl PEG-15 ammonium chloride	Liquid/95%	38
Calfoam® TLS-40	Alcohol/Ether Sulfate	TEA Lauryl Sulfate	Liquid/40%	5, 24

Index by INCI/Chemical Name

Product Name	Type	INCI/Chemical Name	Physical Form/Activity	Page Number(s)
Calsoft® T-60	Alkyl Benzene Sulfonate	Triethanolamine Dodecylbenzene Sulfonate	Liquid/60%	6, 26
Aristonate® S-5000	Alkyl Aryl Sulfonate	Very High Molecular Wt. Alkyl Aryl Sulfonate (MW=500)	Liquid/60%	40
Aristonate® VH-2	Alkyl Aryl Sulfonate	Very High Molecular Wt. Alkyl Aryl Sulfonate (MW=520)	Liquid/60%	40

EPA Registered Quat Index by Product Name

EPA Reg. No.	Product Name	Active Ingredient	% Active	Page Number(s)
10324-63	Maquat® 10	MQ2525M- 50%/80%	10	19
10324-187	Maquat® 1010N-10%	4450-E/ 4480-E	10	19
10324-99	Maquat® 10-PD	MQ2525M- 50%/80%	10	19
10324-58	Maquat® 128	MQ2525M- 50%/80%	9	18
10324-112	Maquat® 128 MN	MQ615M/624M	10.85	18
10324-105	Maquat® 128 PD	MQ2525M- 50%/80%	9	18
10324-155	Maquat® 128-NHQ	2420-50%/80%	8.45	18
10324-111	Maquat® 1412-10% FCS	MC1412-50%/ 1412-80%E	10	19
10324-94	Maquat® 20-M	MQ2525M- 50%/80%	20	19
10324-194	Maquat® 2420-10%	2420- 50%/80%	10	19
10324-126	Maquat® 2420-50			20, 22
10324-127	Maquat® 2420-80			20, 22
10324-108	Maquat® 256 MN	MQ615M/624M	21.7	18
10324-164	Maquat® 256 PD	MQ2525M- 50%/80%	12.5	18
10324-141	Maquat® 256-NHQ	2420-50%/80%	16.9	18
10324-71	Maquat® 280	MQ2525M- 50%/80%	1.6	18
10324-166	Maquat® 32	MQ2525M- 50%/80%	1.563	18
10324-114	Maquat® 32 MN	MQ615M/624M	2.713	18
10324-167	Maquat® 32 PD	MQ2525M- 50%/80%	1.563	18
10324-157	Maquat® 32-NHQ	2420-50%/80%	2.113	18
10324-31	Maquat® 40-50			20, 21
10324-57	Maquat® 42	MQ2525M- 50%/80%	3.2	18
10324-34	Maquat® 4450-E			20, 21
10324-35	Maquat® 4480-E			20, 21

EPA Registered Quat Index by Product Name

EPA Reg. No.	Product Name	Active Ingredient	% Active	Page Number(s)
10324-80	Maquat® 5.5-M	MQ615M/ 624M	5.5	19
10324-96	Maquat® 50DS	MQ2525M- 50%/80%	50	19
10324-156	Maquat® 512-NHQ	2420-50%/80%	33.8	18
10324-72	Maquat® 615-HD	MQ615M/ 624M	21.7	19
10324-169	Maquat® 615-MR	MQ615M/ 624M	5.5	19
10324-59	Maquat® 64	MQ2525M- 50%/80%	4.5	18
10324-113	Maquat® 64 MN	MQ615M/624M	5.426	18
10324-93	Maquat® 64 PD	MQ2525M- 50%/80%	4.5	18
10324-154	Maquat® 64-NHQ	2420-50%/80%	4.225	18
10324-81	Maquat® 7.5-M	MQ615M/ 624M	7.5	19
10324-198	Maquat® 702.5-M	MQ615M/ 624M	2.5	19
10324-177	Maquat® 705-M	MQ615M/ 624M	5	19
10324-159	Maquat® 710-HF	MQ615M/ 624M	10	19
10324-117	Maquat® 710-M	MQ615M/ 624M	10	19
10324-115	Maquat® 750-M	MQ615M/ 624M	50	19
10324-3	Maquat® LC12S-50%			20, 22
10324-129	Maquat® LC12S-80%			20, 22
10324-6	Maquat® MC1412-50%			20, 22
10324-14	Maquat® MC1412-80%E			20, 22
10324-8	Maquat® MC1416-50%			20
10324-9	Maquat® MC1416-80%			20
10324-98	Maquat® MC5815			21, 22
10324-89	Maquat® MC5815-80%			22
10324-26	Maquat® MC6025-50%			21, 22
10324-51	Maquat® MQ 615M			20, 22
10324-52	Maquat® MQ 624M			20, 22

EPA Registered Quat Index by Product Name

EPA Reg. No.	Product Name	Active Ingredient	% Active	Page Number(s)
10324-17	Maquat® MQ2525-50%			21, 22
10324-142	Maquat® MQ2525M-14	MQ2525M- 50%/80%	14.08	19
10324-28	Maquat® MQ2525M-50%			21, 22
10324-27	Maquat® MQ2525M-80%			21, 22
10324-140	Maquat® MQ2525M-CPV	MQ2525M- 50%/80%	3.2	18
10324-67	Maquat® MQ615-AS	MQ615M/ 624M	10.25	19
10324-1	Maquat® TC76-50%			21, 22

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