



Oilfield Intermediates

Specialty chemistries

Lubrizol

Corrosion Inhibitors

Product Name	Chemical Type	Key Function	Primary Applications
Imidazoline			
ALPHA 1153	1:1 imidazoline derived from tall oil fatty acids	Can be formulated with inorganic and organic acids to form liquid, water-soluble salts for use as corrosion preventives, emulsifiers, wetting agents, or scale preventives.	For use in concentrated form or diluted for application purposes in drilling, production, transporting, and refining of crude oil.
ALPHA 1156-85	2:1 imidazoline derived from tall oil fatty acids	Used to formulate corrosion inhibitors.	For use in drilling, production, transporting, and refining of crude oil.
IC 11	Tall oil-dimer fatty acid imidazoline	Used to formulate thermally stable corrosion preventives. Formulated with acids to form salts for use as corrosion preventives, emulsifiers, wetting agents, or scale preventives.	For use in concentrated form or diluted for application purposes in drilling, production, transporting, and refining of crude oil.
IC 18 75	Polyamido-imidazoline derived from dimer fatty acids	IC 18 diluted in a solvent for better handling properties at low temperatures.	For use in drilling, production, transporting, and refining of crude oil.
IC 912	Hydroxyethyl imidazoline derived from tall oil fatty acids	Used to formulate corrosion preventives; frequently quaternized to form highly water soluble corrosion preventives.	For use in drilling, production, transporting, and refining of crude oil.
LUBRIZOL® 5954AIM	Amido-imidazoline	Used to formulate corrosion preventives.	For use in drilling, production, transporting, and refining of crude oil. Particularly suited for downhole sour-gas environment formulations.
Imidazoline Ethosulfate Quaternary Bases			
ALPHA 1080	Tall oil imidazoline ethosulfate quaternary compound	Used to formulate corrosion preventives; can be diluted with water or alcohols for application purposes. Works well in a high brine solution	Water floods, salt water disposal systems, packer fluids, pipelines, or producing oil wells.
Phosphate Esters			
ALPHA 2296	Potassium salt of an alkyl phosphate ester	Designed as a corrosion preventive; controls general & pitting corrosion for oxygen, hydrogen sulfide, and carbon dioxide.	For use in water-based drilling systems.

Paraffin/Wax/Asphaltene Control

Product Name	Chemical Type	Key Function	Primary Applications
FLOZOL® 2252H	Modified polyalkylated phenol	Functions as a wax crystal modifier and asphaltene dispersant; high flash point.	For crude oils and heavy fuel oils.
LUBRIZOL® 5948	Ester dispersant that functions as an asphaltene dispersant for crude and heavy fuel oils	Functions as an asphaltene dispersant to prevent agglomeration.	For producing wells, oil handling and storage equipment, refineries for residual fuel oil, cat cracker feeds, reduced crudes, and other heavy feedstocks. Good performance on a wide range of crudes.
PD 816	Synergistic blend of amine sulfonates	Used to formulate both oil and water soluble paraffin dispersants.	Treat paraffinic, asphaltenic, and/or naphthenic crude oil production. Efficiently removes and prevents the agglomeration of paraffin in the formation, well bore, all downhole equipment, flow lines, and oil handling and storage equipment.

Scale Inhibitors

Product Name	Chemical Type	Key Function	Primary Applications
Phosphate Esters			
ALPHA 2240 70 PCT	Hydroxyamino phosphate ester	Designed as a concentrate to formulate scale preventives; also functions as an intermediate to formulate corrosion inhibitors for oxygen corrosion.	For squeeze or continuous treatment of calcium carbonate, calcium, barium, and strontium sulfate.
ALPHA 2247	Hydroxyamino phosphate ester sodium salt	Designed as a concentrate to formulate scale preventives; functions as an intermediate to formulate corrosion inhibitors for oxygen corrosion.	Treatment of calcium carbonate, calcium, barium, and strontium sulfate.
Phosphonates			
ALPHA 2403	Diethylenetriamine pentamethylene phosphonic acid sodium salt	Designed as a concentrate to formulate scale preventives.	For treatment of calcium and magnesium carbonate, calcium sulfate, and barium scales.
ALPHA 2803	Diethylenetriamine pentamethylene phosphonic acid	Designed as a concentrate to formulate scale preventives.	For treatment of calcium and magnesium carbonate, calcium sulfate, and barium scales.
BS 648A	Amine salt of hydroxyamino phosphonic acid	Designed as a water soluble scale inhibitor; functions as an intermediate to formulate corrosion inhibitors or combination scale/corrosion inhibitors for cooling water, boilers, water floods, or drilling systems.	For squeeze or continuous treatment of calcium & magnesium carbonate, calcium, strontium and barium sulfate and iron scales in water systems. Excellent tolerance to high calcium content brines at pHs above 4.
BS 679A	Ethoxylated polyethylene polyamine phosphonic acid ammonium salt	Designed as a water soluble scale inhibitor; functions as an intermediate to formulate corrosion inhibitors or combination scale/corrosion inhibitors for cooling water, boilers, water floods, or drilling systems.	For squeeze or continuous treatment of calcium & magnesium carbonate, calcium, strontium and barium sulfate and iron scales in water systems. Excellent tolerance to high calcium content brines at pHs above 4.
IS 48A	Amine methylene phosphonic acid	Used to prepare water-soluble scale preventives; also exhibits very strong anodic properties, giving it excellent applications in oxygenated systems as a corrosion inhibitor such as cooling towers and drilling fluids; does not adversely affect the rheolog.	For control of calcium, magnesium, strontium, barium or iron scales in cooling water, boilers, water floods, or drilling systems. Excellent tolerance to high calcium content brines at pHs above 4.
IS 79A	Ethoxylated polyethylene polyamine phosphonic acid	Used to prepare water-soluble scale preventives; exhibits very strong anodic properties, giving it excellent applications in oxygenated systems as a corrosion inhibitor such as cooling towers and drilling fluids; does not adversely affect the rheological.	For control of calcium, magnesium, strontium, barium or iron scales in cooling water, boilers, water floods, or drilling systems. Excellent tolerance to high calcium content brines at pH above 4.
S 1234	Aminotris(methylenephosphonic acid) ammonium salt	An excellent chelation product with good chemical stability.	Works by interrupting lattice formation in water systems thus inhibiting calcium scale formation.
Specialty			
ALPHA 3456	Amine salt of polyphosphonic acid	Designed as an oil soluble scale preventive thermally stable to 350°F.	Treatment of calcium and magnesium carbonate, calcium, barium, and strontium sulfate, and iron scales.
NAMINUS 55	Liquid formulation of imido polyalkyl amides	Used to inhibit precipitation of sodium chloride salt from high chloride brines.	Allows treatment fluids to carry very high salt saturations up to 40%. Generally, 5% by volume of fresh water is recommended for batch treatments. For continuous treatment, 250-1000 ppm (parts per million) neat chemical should be added to the brine.

H₂S Scavengers

Product Name	Chemical Type	Key Function	Primary Applications
Specialty			
SULFA-CLEAR™ 8846	Water/Oil-soluble, Oxazolidine	Fast acting, high efficiency alternative to conventional triazine hydrogen sulfide scavengers; reduces many process issues associated with conventional triazine, increases crude value by minimizing nitrogen contamination, decreases transportation cost with lower dosage rates and exhibits a better environmental profile.	Best suited for downhole, wellhead and pipeline injection points, however any application currently being serviced by H ₂ S scavenger technology can be considered.
LUBRIZOL® 6115P	Aqueous, ethylenedioxy dimethanol, nitrogen free scavenger	Functions as a formaldehyde releaser; the product in the presence of H ₂ S under oilfield conditions will react irreversibly to reduce the concentration of H ₂ S from the liquid phase.	Suited applications are those which enable long residence (contact)time such as downhole, wellhead, and pipeline injection. Not suitable for bubble tower applications when applied as a direct replacement for triazine
Amine-Aldehyde Adducts			
SULFA-CLEAR™ 8847	Oil-soluble, alkylamine-formaldehyde condensate	Functions as a hydrogen sulfide scavenger; ideal for dehydrated gas or other water-sensitive applications.	For use in gas, oil, or multiphase systems. Can be injected continuously into oil, gas, or multiphase-gathering lines, transmission lines, vapor overheads of pipelines, or refineries.
Triazine			
SULFA-CLEAR™ 8250	Aqueous, cyclic methyl tertiary amine derivative	Designed as a sulfide scavenger; can also be used as an additive to water-soluble corrosion inhibitors and surfactants to enhance control of microorganisms. Can be diluted with methanol or water for applications purposes.	For use in gaseous and aqueous systems. Can be injected continuously into vapor overheads, water gathering lines, water tanks, and holding pits.
SULFA-CLEAR™ 8411C	Aqueous, cyclic tertiary amine solution designed as a sulfide scavenger for use aqueous systems	Designed as a sulfide scavenger; can also be used as an additive to water-soluble corrosion inhibitors and surfactants to enhance control of microorganisms. Can be diluted with methanol or water for applications purposes.	Can be injected continuously into gas pipelines, gathering lines, water tanks, holding pits, and vapor overheads. Ideally suited for bubble tower applications.
SULFA-CLEAR™ 8411HC	Aqueous, cyclic tertiary amine solution	Designed as a sulfide scavenger; can be injected continuously into gas pipelines, gathering lines, water tanks, holding pits, and vapor overheads. Can also be used as an additive to water-soluble corrosion inhibitors and surfactants.	Can be diluted with methanol or water for applications purposes for use in aqueous systems. Ideally suited for bubble tower applications.
SULFA-CLEAR™ 8640	Aqueous, cyclic tertiary amine polymer	Unique mercaptan scavenging ability makes it well suited for any aqueous system where odor control is a concern. Can be injected continuously into water and gas gathering lines, water tanks, and holding pits, transmission lines, and vapor overheads	For use in all phases of the waste water treatment process; can also be used as a replacement for amine sweetening solutions and ironite sponge systems in a batch treatment.



Lubrizol offers a range of intermediate chemistries in support of the oilfield industry, providing key functionality to operations that helps maximize efficiency and productivity. Our products include corrosion inhibitors, scale inhibitors, hydrogen sulfide (H₂S) scavengers, and numerous other specialty chemistries.

For more information on oilfield intermediates from Lubrizol, visit www.lubrizol.com/Oilfield-and-Refinery/Intermediates.

Corrosion Inhibitors

Product Name	Chemical Type	Key Function	Primary Applications
Amido-Amines Blended			
IC 510B	Imidazoline-polyamide derived from fatty acids	Used to formulate oil soluble corrosion inhibitors or diluted with an organic solvent and used as is for the same applications.	For use in drilling, production, transporting and refining crude oil.
Benzyl Quaternary Ammonium Chloride Bases			
ALPHA 1018	Alkyl pyridine benzyl quaternary ammonium chloride	Used to formulate corrosion preventives	Oil well drilling, completion, production, and water flood systems.
ALPHA 1038	Alkyl quinoline benzyl quaternary ammonium chloride	Used to formulate corrosion preventives	Acidizing, oil well drilling, producing, and water flooding systems.
ALPHA 1458	C12-16 Alkyl dimethyl benzyl quaternary ammonium chloride	Used to formulate corrosion preventives; can also be used as a water-injection-system surfactant, water clarifier, and anti-foulant.	Oil well drilling, completion, production, and water flood systems.
ALPHA 1470	Alkyl dimethyl benzyl ammonium chloride	Used to formulate corrosion inhibitors; can also function as a water injection system surfactant, water clarifier or antifoulant. Winterized, low foaming	Oil well drilling, completion, production, and water flood systems.
IC 152 EW	High flash point C12-16 Alkyl dimethyl benzyl quaternary ammonium chloride	Used to formulate corrosion preventives; can also be used as a water-injection-system surfactant, water clarifier, and anti-foulant.	Oil well drilling, completion, production, and water flood systems.
IC 153	C12-16 Alkyl dimethyl benzyl quaternary ammonium chloride	Used to formulate corrosion preventives; can also be used as a water-injection-system surfactant, water clarifier, and anti-foulant.	Oil well drilling, completion, production, and water flood systems.
Benzyl Quaternary Ammonium Chloride Blended Product			
ALPHA 3444	Blend of alkyl pyridine benzyl quaternary ammonium chloride, nonionic and anionic surfactants	Used to formulate corrosion inhibitors; can be diluted with alcohols, glycols, or water/alcohol blends.	Oil and gas producing wells, gathering systems, and water flooding systems.
Di-Quaternary Ammonium Chloride Bases			
ALPHA 2090	Cocoamine diquaternary ammonium chloride	Used to formulate corrosion preventives; can also be used as a water-injection-system surfactant, water clarifier, and anti-foulant.	Oil well drilling, completion, production, and water flood systems.
IC 177	Cocoamine diquaternary ammonium chloride	Used to formulate corrosion preventives; can also be used as a water-injection-system surfactant, water clarifier, and anti-foulant.	Oil well drilling, completion, production, and water flood systems.

Demulsifiers/Surfactants/Foaming Agents

Product Name	Chemical Type	Key Function	Primary Applications
ID 91	Blend of nonionic surfactants and amine sulfanates	Designed to water-wet solids and effectively remove salts from medium to high gravity crude oils.	Typical usage is a 15-20% solution with a treatment rate of 20-25 ppm.
CWF BASE 610 100 PCT	Alcohol ether sulfate	Can be blended with other additives, such as hydrotopes, mutual solvents, & sulfonated surfactants to give desired performance characteristics of drilling foamers.	Excellent fresh water foamer and tolerant of brine water.
CWF BASE 610 3.5 85 PCT	Alcohol ether sulfate	Can be blended with other additives, such as hydrotopes, mutual solvents, & sulfonated surfactants to give desired performance characteristics of drilling foamers.	Excellent fresh water foamer and tolerant of brine water.
CWF BASE HEXYL 90 PCT	Ammonium alcohol ether sulfate	Can be blended with other additives such as hydrotropes, mutual solvents, and sulfonated surfactants to give desired performance characteristics for drilling foamers.	Emulsion stabilizer of a non-emulsifier in down-hole applications. Also used as a foaming agent in oil production as well as in general oilfield applications such as cleaning, foaming and as an oil slick dispersant. Excellent foamer base for high brine fluids.
SULFOCHEM™ ES-3K SURFACTANT	Sodium laureth sulfate surfactant	Surfactant and Foaming Agent.	Multiple applications.
SULFOCHEM™ SLS K SURFACTANT	Sodium lauryl sulfate surfactant	Surfactant and Foaming Agent.	Multiple applications.

Move forward with confidence.

Every time a challenge is solved the world moves forward. And wherever mobility or industrial challenges are being solved you'll find Lubrizol. Our deep chemistry and application expertise, leading testing capabilities, early innovation pipeline, market-driven insights, and commitment to continuous improvement and sustainability are all formulated to help you succeed today and tomorrow.

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