



Lubrizol Production Chemicals

Application Guide

Product Name	Chemical Type	Key Function	Primary Application
H₂S Scavengers			
SULFA-CLEAR™ 8250	MMA-triazine (30%)	Sulfide scavenger for gaseous and aqueous systems.	Wet gas line injection, storage tank and loading operations where vapor phase is high. Typical concentration is 1 ppm per 0.05 ppm H ₂ S.
SULFA-CLEAR™ 8411C	MEA-triazine (50%)	Sulfide scavenger for gaseous and aqueous systems.	All water applications, bubble tower, line injection. Typical concentration is 1 ppm per 0.11 ppm H ₂ S.
SULFA-CLEAR™ 8640	MEA-triazine polyamine adduct blend	Sulfide scavenger for gaseous and aqueous systems. Also provides odor control due to unique mercaptan scavenging capability.	Works on both H ₂ S and mercaptans. Typical concentration is 1 ppm per 0.13 ppm H ₂ S.
SULFA-CLEAR™ 8846	Oxazolidine derivative	Sulfide scavenger for oil, gas and multiphase systems.	Oil soluble, spent product partitions to water phase. Typical concentration for water is 1 ppm per 0.21 ppm H ₂ S. Typical concentration for oil is 1 ppm per 0.06 ppm H ₂ S.
SULFA-CLEAR™ 8847	Alkyl amine adduct	Sulfide scavenger for oil, gas and multiphase systems.	Oil soluble, any oil system. Typical concentration is 1 ppm per 0.15 ppm H ₂ S.
LUBRIZOL® 6115P	EDDM (ethylenedioxy dimethanol)	Sulfide scavenger for gaseous and aqueous systems.	Non-nitrogen.

Scale Inhibitors			
Carbosperse™ K-798	AA:SA:SS terpolymer	Disperses particulates, inhibits scale formation, sequesters and/or stabilizes di- / tri-valent ions.	Excellent dispersant and scale inhibitor with high calcium and iron tolerance.
Carbosperse™ K-752	AA polymer	Disperses particulates and inhibits scale formation.	Very effective against both carbonate and sulfate scales.
BS 648	Hydroxyamino phosphonate	Intermediate for formulation of corrosion and scale inhibitors for cooling water, boilers, water floods, and drilling systems.	For squeeze or continuous treatment of calcium and magnesium carbonate, calcium, strontium, and barium sulfate. Excellent calcium tolerance above pH 4.
BS 679	Polyethylene polyamine phosphonate	Water soluble scale inhibitor that 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 and magnesium carbonate, calcium, strontium, and barium sulfate. Excellent calcium tolerance above pH 4.
NA-MINUS™ 55	Imido polyalkyl amide blend	Used to inhibit precipitation of sodium chloride salt from high chloride brines.	Allows treatment fluids to carry very high salt saturations up to 40%. Typical concentration for batch treatment is 5% by volume. Typical concentration range for continuous addition is 250 - 1000 ppm.
ALPHA 2803	Diethylenetriamine pentamethylene phosphonic acid	Concentrate used to formulate scale preventives.	For treatment of calcium and magnesium carbonate, calcium sulfate, and barium scales.

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Flow Assurance			
FLOZOL® 2252	Polyalkylated phenol	Wax crystal modifier and asphaltene dispersant.	For crude oils and heavy fuel oils in producing wells, oil handling and storage equipment, refineries for residual fuel oil, cat cracker feeds, reduced crudes, and other heavy feedstocks.
LUBRIZOL® 5948	Ester dispersant	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.
FLOZOL® 6682C	Medium molecular weight styrene/ester copolymer	Wax crystal modifier.	For medium crude oils and heavy fuel oils in producing wells, oil handling and storage equipment.
ALPHA 5601X	Alpha olefin-ester copolymer	Wax crystal modifier and pour point depressant.	For crude oils and heavy fuel oils in producing wells, oil handling and storage equipment, refineries for residual fuel oil, cat cracker feeds, reduced crudes, and other heavy feedstocks. Typical concentration range is 100 - 2000 ppm.
FLOZOL® 2251D	High molecular weight ester copolymer	Wax crystal modifier and pour point depressant.	For producing wells, oil handling and storage equipment, reduced crudes, and other heavy feedstocks.
PPD 101	Alpha olefin-ester copolymer	Wax crystal modifier and pour point depressant.	For producing wells, oil handling and storage equipment, refineries for residual fuel oil, cat cracker feeds, reduced crudes, and other heavy feedstocks. Typical concentration range is 100 - 2000 ppm.

Biocides			
BIO-CLEAR™ 1000	Concentrated powder form of DBNPA	Fast acting biocide that degrades quickly. Packaged in 1 lb. (0.45 kg) water soluble bags for safe and easy handling.	EOR systems, completion and workover fluids, drilling muds, packer fluids, water floods, industrial recirculating water cooling towers, air-washer systems and reverse osmosis systems. Refer to product label for treatment rates.
BIO-CLEAR™ 1430	Glutaraldehyde/quaternary ammonium compound blend (17% active)	Broad spectrum activity. Effective over a wide range of pH and temperature conditions.	Drilling, completion and workover fluids, frac fluids, water floods, oil and gas transmission pipelines, gas storage well and systems, hydrotesting and pigging. Refer to product label for treatment rates.
BIO-CLEAR™ 2000	Liquid DBNPA (20% active)	Fast acting biocide that degrades quickly.	EOR systems, industrial recirculating water cooling towers, reverse osmosis systems and air-washing systems. Refer to product label for treatment rates.
BIO-CLEAR™ 2250	Glutaraldehyde (25% active)	Provides balance between speed of action and length of protection. Highly effective against aerobes, SRB's and APB's.	Drilling, completion and workover fluids, frac fluids, water floods, oil and gas transmission pipelines, gas storage well and systems, hydrotesting and pigging. Refer to product label for treatment rates.
BIO-CLEAR™ 2256	Glutaraldehyde/quaternary ammonium compound blend (31% active)	Broad spectrum activity. Effective over a wide range of pH and temperature conditions.	Drilling, completion and workover fluids, water floods, oil and gas transmission pipelines, gas storage well and systems, hydrotesting and pigging. Refer to product label for treatment rates.
BIO-CLEAR™ 5000	Liquid DBNPA (5% active)	Fast acting biocide that degrades quickly.	EOR systems, industrial recirculating water cooling towers, reverse osmosis systems and air-washing systems. Refer to product label for treatment rates.

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Corrosion Inhibitors			
ALPHA 1018	Alkyl pyridine benzyl quaternary	Wax crystal modifier and asphaltene dispersant.	Oil well drilling, completion, production, and water flood systems.
IC 177	Cocoamine diquaternary	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 1458	ADBAC quaternary	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 1153	1:1 imidazoline	Wax crystal modifier and asphaltene dispersant.	For crude oils and heavy fuel oils in producing wells, oil handling and storage equipment, refineries for residual fuel oil, cat cracker feeds, reduced crudes, and other heavy feedstocks.
ALPHA 1080	Tall oil imidazoline quaternary	Used to formulate corrosion preventives; can be diluted with water or alcohols for application purposes.	Oil well drilling, completion, production, and water flood systems.

Surfactant Foamers			
CWF 211	Alcohol ether sulfate blend	All purpose air foam drilling surfactant.	Foams in fresh water, saturated brines and in the presence of oil contamination. Typical concentration range is 1 gal per 1000 gallons.
CWF 311	Alcohol ether sulfate blend	Foam fracturing - in nitrogen generated foam to provide sand transport and fluid loss control. Air foam drilling - as an aid in removing water and drill cuttings from the wellbore. Effective temperature range up to 350°F (177°C).	Foams in fresh or hard water, saturated brines and in the presence of oil contamination. Typical concentration range is 1 gal per 1000 gallons.
CWF 610 3.5 85 PCT	Alcohol ether sulfate	Can be blended with other additives, such as hydrotropes, mutual solvents, & sulfonated surfactants to give desired performance characteristics of drilling foamers.	Excellent fresh water foamer and tolerant of brine water.
CHEMBETAINE™ C42	Cocoamidopropyl betaine	High foaming surfactant and foam stabilizer that is used to improve water injectivity. Can be formulated with scale inhibitor products for multipurpose chemical additives.	For use in water flooding, gas well deliquidification or unloading, or to formulate foamers used in air drilling activities. Typical concentration range is 1 gal per 1000 gallons.
CHEMBETAINE™ CAS	Cocoamidopropyl sultaine	High foaming surfactant and foam stabilizer that is used to improve water injectivity. Foam booster and wetting agent.	Soluble in soft or hard water and brines. Typical concentration range is 1 gal per 1000 gallons.

Demulsifiers			
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.
WFT 9456	Blend of organic surface active polymers, esters and resins	Provides water separation and chloride removal as well as effective interface control. Maintains water quality for disposal.	Can be injected at oil wellheads, satellites or desalter inlets to initiate the breaking of emulsion in the field or plant site.
CLEARBREAK 405	Oil soluble demulsifying surfactant blend	For treating a wide range of chemical emulsions. Breaks basic sediment and water out of oil.	Used to treat emulsion build up in treaters, water knockouts and systems that do not have sufficient residence time for water to separate.
CLEARBREAK TAL	Oil soluble demulsifying surfactant blend	For treating a wide range of chemical emulsions. Breaks basic sediment and water out of oil.	Used to treat emulsion build up in treaters, water knockouts and systems that do not have sufficient residence time for water to separate.
DB 935	Nonyl resin	Typically blended with other demulsifier components to formulate a finished demulsifier. High RNS material (17-20).	Used to formulate oilfield demulsifiers tailored to specific emulsions and production systems.
DB 9393	Polyimine	Typically blended with other demulsifier components to formulate a finished demulsifier. Low RNS material (5-10).	Used to formulate oilfield demulsifiers tailored to specific emulsions and production systems.