OILFIELD CHEMICALS

CATALOG



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Summit International and associated companies, take pride in decades of experience in manufacturing and supply of oilfield and industrial products to oil & gas companies, rig manufacturers, drilling contractors, casing & service companies, refineries, petrochemical and power generation plants, exploration and production operations, marine industries, engineering & construction companies, and bio-remediation projects for many decades.

We have a proven record servicing domestic and international markets. Our experience and technical knowledge have made us a prime source of supply and service to major companies worldwide. Our close association with manufacturers in various industries in form of "agency" or "preferred account", enables us to offer the most proffessional service to our clients. Our full range of products and services are available to all companies that are searching for the right solution.



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Iron Chelant/Iron Sulfide Remover MIC-220

Made in the USA

Product Information

MIC-220 is an iron sulfide dissolver and a general wellbore cleaner. MIC-220 has a storage life of one year. Keep container closed when not in use. As with all industrial chemicals, safety glasses, gloves and aprons are recommended for use when handling this product.

MIC-220 is an effective iron sulfide remover. Below is a comparison with widely used FeS dissolvers:

Property	5% HCl + DTPA	Acrolein	THPS + NH4Cl	Inhibited 7.5% HCl	MIC-220 (pH = 6)
Kinetics	Excellent	Fair	Fair	Excellent	Fair
Corrosivity	Poor	Low	Moderate	Poor	Moderate
Secondary Deposition	Poor	Low	Low	Poor	Low
H2S Evolution	High risk	No Risk	High risk	High risk	No risk
Handling	High Risk Corrosive	High Risk Toxic, Explosive	High Risk Toxic	High Risk Corrosive	Low Risk
CaCO3 Reaction	Good	Poor	Poor	Good	Good

MIC-220 will chelate iron and prevent FeS deposition. A table of metal chelation capacity is shown below:

Metal Chelation Capacity				
Metal Ion	Parts MIC-220 per Part Metal			
Ca	25			
Mg	40			
Fe	20			
Cu	15			
Mn	15			

Product Application

MIC-220 is generally added in concentrations from 1.0% to 10.0%. The product can be used as a 50% solution for severe accumulations or diluted with water as needed. To prevent FeS deposition, use 1 gallon/1000 bbls of water for every 1 ppm of iron (Fe). If Ca or Mg are present use 5 to 10 gallons/1000 bbls of water for every 1 ppm of iron (Fe). As always, run compatibility tests on any formulations.

Physical Properties

pH: 11 - 12 Density: 10.8 ppg

Flash Point: >93° C / 200° F Appearance: Colorless to Slightly Yellow

Pour Point: -25° C / -13° F Odor: None

Specific Gravity: 1.3



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Rig Wash MRW-3000

Made in the USA

Product Information

MRW-3000 is an environmentally friendly, low toxicity rig wash/ surfactant cleanser. MRW-3000 reduces oil and grease to tiny particles and deposits a coating on them for easy removal. The product also effectively reduces the odors of most hydrocarbons.

In closed containers, MRW-3000 has a storage life of at least one year. Keep container closed when not in use. As with all industrial chemicals, safety glasses, gloves and aprons are recommended for use when handling this product.

Product Application

MRW-3000 is designed to be used in a diluted form. It is generally diluted 10:1 but can be diluted 50:1 for high pressure cleaning.

Advantages

MRW-3000 is useful in cleaning surface hardware. The product contains surfactants that remove hydrocarbon deposits from surfaces. It does not contain phosphates, caustics nor acids.

Physical Properties

pH: 6 - 7 Density: 8.41 lbs/gal

Flash Point: >93.33° C / 200° F Appearance: Transparent Light Amber

Pour Point: -2° C / 28° F Odor: Mild Specific Gravity: 1.01 Solubility: Liquid



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company Houston Texas USA

Master Paraffin Solvent MPS-400

Made in USA

Product Information

MPS-400 is a unique blend of Aliphatic and Aromatic solvents designed to penetrate and remove paraffinic wax deposits. Removal is accomplished through a combination of solution and dispersion which allows large deposits to be dissolved and dispersed back into the fluid allowing for pressure reduction and increase in flow.

Product Application

MPS-400 is recommended to be used either in batch treatments or continuous injection. Typical use concentrations range from 100 to 5,000 ppm depending upon the severity of the problem, type of material to be removed and treatment method. The Summit team is experienced in designing a treatment application whether it be batch or continuous injection to eliminate and prevent wax accumulations.

Advantages

MPS-400 in a situational specific application can provide the following benefits:

- Paraffin removal in downhole tubing, flowlines, pipelines, slip streams, treating equipment
- Emulsion Breaker enhancement
- Keeps chokes and pressure plates clean from deposition

Physical Properties

pH: NA Density: 6.65 lbs/gal

Flash Point: 12° C / 54° F Appearance: Clear to Yellow Liquid

Pour Point: -40° C / -40° F Odor: Hydrocarbon Specific Gravity: 0.80 Solubility: Hydrocarbon



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company Houston Texas USA

Master Emulsion Breaker MEB-650 & MEB-695 Series (Demulsifier)

Made in USA

Product Information

The Master Emulsion Breaker Series of demulsifiers are tailor-made, oil-based blends of surfactants and carrier solvents designed to separate the most difficult water-in-oil emulsions encountered in the oilfield or refinery. The MEB Series is formulated to react quickly at both ambient and elevated temperatures and over a broad range of emulsion chemistries. The result is on-spec oil and clarified water with little to no unresolved emulsion (rag).

Product Application

Oilfield emulsions are formed when oil, water, and/or particulate material are dispersed and stabilized by naturally-occurring emulsifiers, added treatment chemicals, and/or fluid shear caused by high fluid velocities. Separation of these emulsions into clean oil, clean water, and water-wet solids requires a three step process:

- 1. Destabilization: existing stabilizing surfactant(s) are replaced with surfactants that destabilize the emulsion
- 2. Coalescence: dispersed oil and water droplets are destabilized (no longer repelling each other) so they begin to collide and agglomerate into larger droplets
- 3. Sedimentation: oil, water, and particulate material separate into layers based on their relative densities.

Demulsifiers, also known as emulsion breakers, are responsible for destabilizing the emulsions. The resulting coalescence and sedimentation occur naturally, but can be enhanced with such applications as heat, centrifugation, and long detention times. It is more economical to utilize a high performance demulsifier that minimizes the need for heat and centrifugation.

<u>Advantages</u>

Each emulsion is unique, only a tailor-made demulsifier can provide the following combinations of benefits:

- Fast, effective separation at ambient or elevated temperatures
- Greater revenue higher oil quality
- Reduced expenses lower chemical cost, lower chemical usage, reduced waste generation (such as sludge and rag), cleaner by-products, reduced energy consumption (less heat required), reduced equipment costs
- Compliance meets both water quality standards for regulatory compliance and oil quality specifications.

Physical Properties

pH: NA Density: 6.0-9.0 lbs/gal Flash Point: $38-60^{\circ}$ C / $100-140^{\circ}$ F Appearance: Dark, Bright Liquids Pour Point: $-40-0^{\circ}$ C / $-40-32^{\circ}$ F Odor: Hydrocarbon

Specific Gravity: 0.7 - 1.0 Solubility: Hydrocarbon



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company
Houston Texas USA

Master Scale Inhibitor MSI-700

(Scale Inhibitor)

Made in USA

Product Information

MSI-700 is a partially neutralized, water soluble, broad spectrum mineral scale inhibitor for use in oil and gas production operations. It is a highly effective scale inhibitor for preventing the formation and deposition of the common oilfield scales, including: calcium carbonate, calcium sulfate, strontium sulfate, and barium sulfate. The product can be applied continuously, either downhole or at the surface, or in a scale inhibitor squeeze. When used in scale inhibitor squeeze treatments, MSI-700 provides unattended scale control for long periods of time. When used as an additive in hydraulic fracturing operations, MSI-700 provides protection from scale deposition caused by the introduction of water that may be incompatible with the native reservoir brine.

Product Application

MSI-700 may be applied continuously downhole via capillary string, continuously into the surface flowlines or by scale inhibitor squeeze treatments. MSI-700 is also frequently used as a scale inhibitor additive in hydraulic fracturing. An atomizer is highly recommended for downhole capillary applications. Typical treating ranges vary depending on the severity of the scale potential, but usually range from 5 to 20 ppm. For hydraulic fracturing operations, a dose rate of 50 to 100 ppm is recommended.

<u>Advantages</u>

MSI-700 is effective in preventing scale deposition at relatively low dosages. The product is effective against the common oilfield scales, both carbonate and sulfates. MSI-700 does not contain flammable components and therefore will neither burn nor support combustion. The active component contains phosphorous, which is easily detected using common oilfield laboratory techniques, making residual inhibitor measurements fast and accurate. The active component is thermally stable to temperatures in excess of 350° F (175° C). The product is soluble in high TDS brines with excellent calcium ion compatibility.

Physical Properties

pH: 5 - 7 Density: 9.21 lbs/gal
Flash Point: >100° C / 220° F Appearance: Amber Liquid
Pour Point: -7° C / 20° F Odor: Slightly Sweet

Specific Gravity: 1.106 Solubility: Water



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Master Paraffin Inhibitor MPI-800 Series

(Paraffin Inhibitor)

Made in the USA

Product Information

MPI-800 is a combination of solvents and wax crystal modifiers specifically designed to decrease the pour point and inhibit paraffin wax deposition in highly paraffinic production systems. MPI-800 combines proven paraffin solvents utilizing an aromatic and aliphatic blend with a broad spectrum wax crystal modifier to allow the product to be highly effective over a wider range of carbon chain paraffins. The product can be applied downhole or on the surface, before the Wax Appearance Temperature (WAT) of the production stream.

Product Application

MPI-800 can be applied continuously downhole via capillary string or backside injection, continuously into surface flowlines or by inhibitor squeeze. The product must be applied above the Wax Appearance Temperature (WAT) to be effective at inhibition of paraffin formation. Typical treatment ranges vary depending on the severity of the paraffin, the system parameters, and the temperature of the fluid. The severity of the problem will dictate the dosage, but typical treatment rates will be 1-3 gallons per 500 barrels of produced oil.

Advantages

MPI-800 is effective in the prevention of paraffin deposition. This product combines a pour point depressant and paraffin crystal modifier which will improve pumpability of a wide range of paraffinic crude oils, distillates, and residual fuel oils.

Physical Properties

pH: NA Density: 7.02 lbs/gal

Flash Point: 18° C / 65° F Appearance: Yellow to Amber Liquid

Pour Point: -29° C / -20° F Odor: Hydrocarbon Specific Gravity: 0.843 Solubility: Hydrocarbon



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Master Inhibitor Series MCI-1100

(Corrosion Inhibitor - Water Soluble)

Made in USA

Product Information

MCI-1100 is a highly active general purpose corrosion inhibitor. It is suitable for batch treating oil and gas wells. It is also effective in preventing corrosion in gas pipelines. The product is a film former, depositing a temporary protective film on metal surfaces.

Product Application

MCI-1100 can be applied continuously either top side or down hole via capillary string. The product has also been highly effective for batch treatment applications in oil and gas well applications. The product has a high flash point and pour point below freezing making the product suitable for a wide variety of locations.

Advantages

MCI-1100 can be used in corrosive environments caused by the presence of the H2S and/or CO2. It is soluble in most oilfield brines, aqueous liquids, such as IPA, and it is dispersible in many organic fluids, such as kerosene. It is thermally stable in brines at temperatures up to 350 °F.

Physical Properties

pH: 4 - 5 Density: 8.24 lbs/gal

Flash Point: >100° C / 203° F Appearance: Dark Amber Liquid

Pour Point: -4° C / 25° F Odor: Amine Specific Gravity: 0.988 Solubility: Water



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company Houston Texas USA

Master Inhibitor Series MCI-1200

(Corrosion Inhibitor - Oil Soluble)

Made in USA

Product Information

MCI-1200 is an oil soluble blend of corrosion inhibitor bases. It is comprised of filming amines, imidazolines and quaternary amines and contains a demulsification package.

Product Application

MCI-1200 can be applied continuously either top side or down hole via capillary string. The product is suitable for batch treating oil and gas wells. The product is designed to be used in corrosive environments resulting from the presence of CO2 and H2S.

Advantages

MCI-1200 can be used in corrosive environments caused by the presence of the H2S and/or CO2. It is highly dispersible in most oilfield brines, aqueous liquids, such as IPA, and it is soluble in many organic fluids, such as kerosene. It is thermally stable in brines at temperatures up to 177°C / 350 °F.

Physical Properties

pH: NA Density: 7.9 lbs/gal
Flash Point: 29° C / 84° F Appearance: Amber Liquid
Pour Point: -18° C / 20° F Odor: Aromatic
Specific Gravity: 0.95 Solubility: Hydrocarbon



Hydrate Inhibitor MHI-2930 & MHI-2960

Made in the USA

Product Information

MHI-2930 and MHI-2960 are combination kinetic and thermodynamic Hydrate Inhibitors that will achieve sub-cooling of ΔT 20°C (36°F) preventing formation and accumulation of hydrates in flowing gas systems.

Product Application

MHI-2930 is recommended to be used in continuous injection applications. Typical use concentrations range from 500 to 5,000 ppm in the water phase depending on the severity of the problem. MHI-2930 should be used in more severe hydrate formation conditions. MHI-2960 has the same physical properties as MHI-2930. The only difference will be the application dosage.

MHI-2960 and is a dilution of MHI-2930.

Advantages

MHI-2930 and MHI-2960:

- Are useful in preventing hydrate plugs
- ARE NOT recommended for removal of existing plugs
- Allow 30% to 50% less methanol to be used to achieve similar performance in hydrate prevention.

Physical Properties

pH: NA Density: 6.65 lbs/gal

Flash Point: 11° C / 52° F Appearance: Clear to Yellow Liquid

Pour Point: -40° C / -40° F Odor: Alcohol Specific Gravity: 0.80 Solubility: Water



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Master H₂S Scavenger Series MMT-1500

(MEA Triazine)

Made in the USA

Product Information

MMT-1500 is a highly effective, water soluble H_2S scavenger for use in sour oil and gas wells. The product may be applied continuously downhole via capillary string, continuously into the surface flowlines or used in bubble towers. The H_2S is rapidly converted to non-hazardous, water soluble products.

Product Application

MMT-1500 is recommended for a continuous application whether used in a downhole or flowline applications. An atomizing quill is highly recommended for downhole capillary applications. Typical treating ranges vary depending on the concentration of H₂S present. The Summit team is experienced in designing a treatment application to eliminate H₂S.

<u>Advantages</u>

Fast, efficient and economical for the removal of hydrogen sulfide from gas, water and oil streams.

Physical Properties

pH: 9 - 11 Density: 8.99 lbs/gal

Flash Point: >100° C / >212° F Appearance: Clear to Slightly Yellow Liquid

Pour Point: -4° C / 25° F Odor: Amine Specific Gravity: 1.08 Solubility: Water



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Master H₂S Scavenger Series MMT-1550

(MEA Triazine with Scale Inhibitor)

Made in the USA

Product Information

MMT-1550 is a highly effective, water soluble H_2S scavenger for use in sour oil and gas wells. The product contains a broad spectrum scale inhibitor and may be applied continuously downhole via capillary string, continuously into the surface flowlines or used in bubble towers. The H_2S is rapidly converted to non-hazardous, water soluble bi-products.

Product Application

MMT-1550 is recommended to be applied on a continuous basis whether used in a downhole or flowline applications. An atomizing quill is highly recommended for downhole capillary applications. Typical treating ranges vary depending on the concentration of H₂S present. The Summit team is experienced in designing a treatment application to eliminate H₂S.

Advantages

MMT-1550 is fast, efficient and economical for the removal of hydrogen sulfide from gas, water and oil streams. The product is effective at inhibiting the formation of calcium carbonate scale which would normally result when using a product with a high pH value.

Physical Properties

pH: 9.0 - 11.0 Density: 9.07 lbs/gal

Flash Point: >100° C / >212° F Appearance: Clear to Slightly Yellow Liquid

Pour Point: -4° C / 25° F Odor: Amine Specific Gravity: 1.09 Solubility: Water



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company Houston Texas USA

Master H₂S Scavenger Series MH₂SS

(Non-Triazine)

Made in USA

Product Information

 MH_2SS is a new generation H_2S removal chemical that is able to convert hazardous Hydrogen Sulfide into a non-hazardous, biodegradable water soluble salt. The reaction is instantaneous and irreversible. It is extremely effective in removing H_2S from crude oil, contains no triazine, no nitrogen and no heavy metals. The injection rate required is substantially lower than triazine based chemistry.

Product Application

MH₂SS is specifically designed to treat a crude oil and hydrocarbon streams that will be re-processed refinery process units. The chemical separates easily from crude and condensate. Any physical entrapment of the chemical held by heavier or lower API crudes is easily removed in the de-salter.

MH₂SS can be injected continuously and injected as early as possible in order to maximize contract with the hydrocarbon stream. Alternative applied in batches when treating sour crude in tanks or ships. Dosages required must be determined after a system evaluation.

Advantages

The use of MH₂SS to remove H₂S from crude oil provides the following combination of benefits:

- Improved health and safety compliance since H2S is a very toxic and harmful to personnel
- Improved safety compliance since H2S is a flammable gas
- Improved environmental compliance since H2S is hazardous and harmful to the environment
- Longer service life of equipment, plus lower maintenance costs as there is less corrosion of equipment
- Eliminates the formation of solid waste such as iron sulfide, metal hydroxides, metal carbonates and amine salts
- Improved water quality to help meet standards of regulatory compliance
- Improved oil product quality to help meet specifications
- Reduces the demand for corrosion inhibitor chemicals
- Eliminates the offensive odor caused by H2S and other volatile sulfides

Physical Properties

pH: 12 - 14 Density: 9.54 lbs/gal

Flash Point: >100° C / >212° Appearance: Light Brown Liquid

Pour Point: -15° C / 5° F Odor: Hydrocarbon

Specific Gravity: 1.15 Solubility: Water



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Master Foamer Series MFB-1900

(Foamer)

Made in USA

Product Information

MFB-1900 is a foaming agent that increases the well's lifting ability to enhance water removal. The product decreases the hydrostatic head of fluid in the wellbore, allowing the reservoir pressure to more efficiently remove the water.

Product Application

MFB-1900 is designed to be delivered via capillary string or as a backside flush. The capillary string should be located as close to the downhole fluid level as possible. This location will provide the most agitation assuring thorough mixing.

Advantages

MFB-1900 is used to assist fluid lifting in gas wells. The product increases gas production by removing condensate and accumulated water from gas-condensate wells. The foaming action decreases the hydrostatic head which results in increased gas production. This further enhances the foaming action until the well unloads completely.

Physical Properties

pH: 5.0 - 7.0 Density: 8.33 lbs/gal

Flash Point: >100° C / >212° F Appearance: Water White Liquid

Pour Point: 0° C / 32° F Odor: Mild Specific Gravity: 1.0 Solubility: Water



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company Houston Texas USA

Master Foamer Series MFB-1950

(Foamer w/ Scale & Corrosion Inhibitor)

Made in USA

Product Information

MFB-1950 is a multipurpose product containing a foaming agent that increases the well's lifting ability to enhance water removal. The product also includes a corrosion inhibitor and a proprietary blend of broad spectrum polymeric scale inhibitors.

Product Application

MFB-1950 is designed to be delivered via capillary string or as a backside flush. The capillary string should be located as close to the downhole fluid level as possible. This location will provide the most agitation assuring thorough mixing. As a backside flush, the product will rinse the surfaces of the contacted pipe, providing scale and corrosion control.

Advantages

MFB-1950 is used to assist fluid lifting in gas wells. The product increases gas production by removing condensate and accumulated water from gas-condensate wells. The foaming action decreases the hydrostatic head which increases gas production. This further enhances the foaming action until the well unloads completely.

Physical Properties

pH: 5.0 - 7.0 Density: 8.33 lbs/gal

Flash Point: >100° C / >212° F Appearance: Water White Liquid

Pour Point: 0° C / 32° F Odor: Mild Specific Gravity: 1.0 Solubility: Water



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company Houston Texas USA

Master Surfactant MSS-2000

Made in USA

Product Information

MSS-2000 is a proprietary, highly effective, non-ionic surfactant. The product is soluble in water, brine and acid solutions. The surfactant provides a low surface tension allowing faster and more efficient flow back of the water injected during hydraulic fracturing operations.

Product Application

MSS-2000 is added to frac fluids at typical dose rates of 1 - 2 gpt. At this dose rate, the product reduces the surface tension of water or brine to approximately 29 mN/m. Less energy is therefore required to remove the water from the fractured reservoir, resulting in higher gas or oil rates sooner. Flowback surfactants are critical in both moderate permeability oil reservoirs and low permeability gas reservoirs. Flow back of the fracturing fluid is improved by reducing the capillary pressure of the fluid in the fracture region.

Advantages

MSS-2000 is a sophisticated flowback surfactant used to increase the amount and rate of water returned after a frac job. When added to the injected fluids at concentrations of 1 - 2 gpt (1,000 - 2,000 ppm), the surface tension of the water is lowered, thereby requiring less reservoir pressure to produce the fluids during well clean up.

Physical Properties

pH: 6.0-8.0 Density: 8.33 lbs/gal

Flash Point: >100° C / >212° F Appearance: Water White Liquid

Pour Point: 0° C / 32° F Odor: Slightly Sweet Alcohol

Specific Gravity: 1.00 Solubility: Water

Surface Tension: @2 gpt 29mN/m Contact Angle: @2 gpt >80°F



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Master Clay Stabilizer MCS-2100

Made in USA

Product Information

MCS-2100 is a blend of a known and widely used temporary clay stabilizer (Choline Chloride) with a proprietary compound to enhance overall performance. The blended formula provides a more persistent control of clay and shale swelling and fines migration.

Product Application

MCS-2100, when applied in aqueous fracturing treatments at a concentration of 1 - 2 gpt. At this treatment rate the product helps prevent clay particles from swelling. The product provides temporary clay and shale stabilization as well as providing some of the added benefit of more permanent stabilizers. MCS-2100 offers an attractive alternative to KCI and other liquid clay treatments.

In drilling operations, our formula provides a persistent treatment preventing damage to water sensitive shales and clays.

Advantages

MCS-2100 provides stabilization to prevent clays and shales from swelling in water sensitive formations, while providing an element of persistence of the treatment process.

Physical Properties

pH: 4.0 - 9.0 Density: 8.75 lbs/gal

Flash Point: >100° C / >212° F Appearance: Water White Liquid

Pour Point: -7° C / 20° F Odor: Slightly Sweet Alcohol

Specific Gravity: 1.05 Solubility: Water



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company Houston Texas USA

Master Defoamer Series MDB-2200

Made in USA

Product Information

MDB-2200 (FO-2200) is a product containing an anti-foaming agent that prevents or eliminates foams in production activities. MDB-2200 is a non-silicone based product, useful in both oil and water systems.

Product Application

MDB-2200 may be applied directly to the foam. A mist of defoamer applied to the surface will break the foam. Applied to the liquid, before foaming has occurred, will reduce the foaming tendency of the liquid.

Advantages

MDB-2200 is used to prevent and remove foam.

Physical Properties

pH: NA Density: 6.75 lbs/gal

Flash Point: >38° C / >100° F Appearance: Water White Liquid

Pour Point: <-40° C / <-40° F Odor: Mild

Specific Gravity: 0.81 Solubility: Hydrocarbon / Water



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company Houston Texas USA

Master Friction Reducer MFR-2300

Made in USA

Product Information

MFR-2300 is a proprietary, highly effective, medium charge, high molecular weight anionic friction reducer. MFR-2300 is a single component emulsion polymer. No alkyl phenol ethoxylates (APE or NPE) are used in the manufacture of MFR-2300, making it environmentally friendly.

Product Application

MFR-2300 can be pre-diluted with water prior to use, but is usually added on the fly. The on-the-fly addition reduces waste and disposal costs. Typical dose rates range from 1/8 - 1/2 gpt.

Advantages

MFR-2300 is an anionic friction reducer that will reduce friction pressures by as much as 80% when compared to untreated fresh water.

Physical Properties

pH: 6-8 Density: 8.37 lbs/gal

Flash Point: >100° C / >200° F Appearance: Opaque, White Emulsion

Pour Point: NA Odor: Slight Hydrocarbon

Specific Gravity: 1.01 Solubility: Water
Viscosity: 500 - 1400 cps Charge: Anionic

Product Handling & Storage

MFR-2300 should be stored between 40° and 90°F and protected from freezing. If freezing occurs, the product should be warmed to 40° to 90°F and agitated prior to use. The shelf life is at least 6 months in unopened containers.

Very slight separation may occur upon standing. Containers should be rolled prior to use. Product rotation is recommended to avoid prolonged storage times.



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company
Houston Texas USA

Master Packer Fluid MPF-2400

Made in USA

Product Information

MPF-2400 is a packer fluid additive comprising a corrosion inhibitor, an oxygen scavenger and a scale inhibitor. This product is soluble in most brines. It contains low molecular weight filming amines and quaternary amine corrosion inhibitors. The product is an effective oxygen scavenger and contains a highly soluble, broad spectrum polymeric scale inhibitor.

Product Application

MPF-2400 is used in concentrations of 2% - 10% to provide adequate protection.

Advantages

Packer fluids provide hydrostatic pressure support to balance formation pressure. The packer-fluid additive MPF-2400 mixes easily in most brines. The scale inhibitor component effectively prevents carbonate and sulfate oilfield scales. Two corrosion inhibitors are present in the formulation to inhibit corrosion. The oxygen scavenger component reduces the likelihood of oxygen corrosion.

Physical Properties

pH: 9 - 11 Density: 8.42 lbs/gal

Flash Point: 38° C / 100° F Appearance: Dark Amber Liquid

Pour Point: 0° C / 32° F Odor: Amine Specific Gravity: 1.01 Solubility: Water



SUMMIT INTERNATIONAL a SITCO ENTERPRISES LLC company Houston Texas USA

Master Lubricant Series MGL-2500

(Diesel Free)

Made in USA

Product Information

MGL-2500 (Diesel Free) is a proprietary blend of surface active agents in a BTEX Free carrier fluid. The product is effective at high temperatures and pressures, providing up to 95% reduction in in torque. It is fully dispersible in brine and typical application concentrations are 1% - 3%.

Product Application

MGL-2500 (Diesel Free) is a pipe-on-pipe lubricant applied at concentrations of 1% - 3%. This results in up to 95% reduction in torque. The product is useful in drilling applications as well as in coiled tubing operations to reduce pipe-on-pipe friction.

Advantages

MGL-2500 (Diesel Free), is a BTEX free additive used to reduce torque and drag in oil and water based drilling fluids. Torque is the rotary friction between the drilling bit and the wellbore. Drag is the friction force between the bit and pipe as it moves into the wellbore. Some of the benefits realized are:

- Environmentally responsible
- Increased bit life
- Decreased horsepower requirements
- Less tendency to stick the pipe
- · More uniform hole

Physical Properties

pH: 7 - 9 Density: 7.33 lbs/gal

Flash Point: >100° C / >200° F Appearance: Dark Brown Liquid

Pour Point: -20° C / -4° F Odor: Slight

Specific Gravity: 0.88 Solubility: Water Dispersible



Master Lubricant Series MDL-2550

(Hydrocarbon Based)

Made in USA

Product Information

MDL-2550 (Hydrocarbon Based) is a proprietary blend of surface active agents in a diesel carrier that are effective at high temperatures and pressures. The product provides up to 95% reduction in in torque and typically is applied in concentrations are 1% - 3%.

Product Application

MDL-2550 is a drilling mud lubricant added to water based muds at concentrations of 1% - 3% to achieve up to a 95% reduction in torque. The product is useful in drilling applications as well as in coiled tubing operations.

Advantages

Some of the benefits from using MDL-2550 are:

- Increased bit life
- Decreased horsepower requirements
- Less tendency to stick the pipe
- · More uniform hole

Physical Properties

pH: 4 -6 Density: 10.6 lbs/gal

Flash Point: >100° C / >200° F Appearance: Dark Brown Liquid

Pour Point: -20° C / -4° F Odor: Hydrocarbon
Specific Gravity: 1.28 Solubility: Hydrocarbon



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Master Gel Stabilizer MGS-2600

Made in USA

Product Information

MGS-2600 is a water solution of 30% sodium thiosulfate (STS) used as a high temperature gel stabilizer. The product is added to the fracturing fluids to reduce the loss of viscosity at high reservoir temperatures. The useful temperature range of guar based fluids can be extended to over 350°F

Product Application

MGS-2600 is used in high temperature hydraulic fracturing operations. Depending on temperature, the product is added at a concentration of 0.1% - 1.0% in the frac water.

Advantages

MGS-2600 is used to prevent or delay the degradation of crosslinked gels. Sodium Thiosulfate based solutions are useful in high temperature hydraulic fracturing operations. Degradation is attributed to the presence of divalent or trivalent ions. The product is a strongly reducing compound.

Physical Properties

pH: 8 - 10.5 Density: 10.6 lbs/gal

Flash Point: >100° C / >200° F Appearance: Clear, Slight Amber Liquid

Pour Point: -10° C / 14° F Odor: Slight Sulfur Odor

Specific Gravity: 1.28 Solubility: Water



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Master Acid Corrosion Inhibitor MAC-2700

Made in USA

Product Information

MAC-2700 is a liquid acid corrosion inhibitor that is dispersible in 15% HCl solutions. The product contains a non-emulsifier and does not contain propargyl alcohol, quinoline quats or nonyl phenol ethoxylates (NPE).

Product Application

MAC-2700 is used in high temperature hydraulic fracturing operations. Depending on temperature, the product is added at a concentration of 0.1% - 1.0% in the acid solution.

Advantages

MAC-2700 is a liquid, water and acid dispersible product formulated for use as an acid corrosion inhibitor. It is used to protect steel surfaces from damage caused by HCl during acid treatments. When used in concentrations of up to 8 gpt at temperatures of up to 115° C / 250° F. MAC-2700 is effective in mitigating loss of steel due to acid corrosion. Corrosion of less than 0.05 lbs/sqft is observed with minimal pitting. While the product contains a non-emulsifier, it is recommended that testing be conducted to optimize the NE performance.

Physical Properties

pH: 2 - 4 Density: 8.60 lbs/gal

Flash Point: 27° C / 80° F Appearance: Transparent Amber Liquid

Pour Point: -18° C / 0° F Odor: Sweet Alcohol
Specific Gravity: 1.03 Solubility: Water Dispersible



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ABOUT US

Summit International, an American based company, is a manufacturer and supplier of quality oilfield and industrial products. Our company has proudly provided products and services to oil & gas companies, rig manufacturers, drilling contractors, casing & service companies, refineries, petrochemical and power generation plants, exploration and production operations, marine industries, engineering & construction companies, and bio-remediation projects for many decades.

Fuel and Fleet Management



Oilfield Tools & Equipment



Summit Solar Chemical Injection



Summit Oilfield Chemicals



Summit Oilfield Lubricants



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