Alpha**Zyme** D300 EOR

From Complus Trading North America LLC

Usage Instructions

AlphaZyme D-300 is used as a well stimulation product to improve production by improving the viscosity of the oil. Temperature limit is 300 degrees Celsius. AlphaZyme D-300 can also be used in Water Flood Programs and is offered as AlphaZyme D-300WC.

Product Dilution

These products are to be diluted to a 10% to 20% activity rate and injected into the Well Head at the well. Precise Displacement by volume should be calculated using the Annulus Formula. **Never use this product in the concentrated format.**

Example of Annulus Volume formula injecting down the tubing

If Client pulls the pump and set a packer on the backside, the diluted product should be pumped down the tubing. This is the best strategy on older wells, to protect the casing from high pressure since the tubing pressure is tested regularly.

To calculate the volume of the tubing, use the following formula: diameter x diameter divided by 1029 x length of the pipe.

Example: if the tubing is 2 7/8 " diameter and it is 6500' deep use $2.875 \times 2.875 / 1029 \times 6500 = 52.21$ barrels will fill the tubing. A Barrell is equal to 42 gallons of diluted barrels. In this case, a total of 2192,82 gallons of diluted product are necessary with a total of used concentrated AlphaZyme D-300 product of 219,28 gallons (or 0,85 Metric Tons). One metric ton of AlphaZyme D-300 is equivalent to 258,87 Gallons.





Alpha**Zyme** D300 EOR

From Complus Trading North America LLC

On a small well stimulation we generally pump 25 barrels per foot of perforations in vertical wells and displace with the volume of the tubing by 1.5 times. For larger stimulations we will treat with 50 barrels per foot of pers.

Example of Annulus Volume formula injecting down the casing

If the client does not want to remove the pump and use the annulus to push the treatment down in the formation, calculate the casing volume with the same formula and subtract the tubing volume for the casing and that is our displacement rate x 1.5.

When treating down the annulus, always set the pump in the upward position and tighten the stuffing box before beginning the treatment. However normally, per each well, consider a quantity of 1 metric ton of concentrated AlphaZyme D300 to be diluted to 10% with produced water (or saline water or normal water) in a mixing tank, equivalent to 10 metric tons of water and the mix shall be injected in the annulus with a 5000 psi pump.

Soaking period

In order to maximize the duration of stimulation up to the maximum of 36 months, we suggest, at the end of at least one week soaking period, to open only partially the well, to only 30% capacity for 3 days, then to 50% for another 3 days and to 100% after another 6 days. In that way the Enzyme will continue to work for a long time after treatment. (According to experience on previously treated wells, results may vary based on type of formation. Some soak times have been up to 14 days to get maximum output).





Alpha**Zyme** D300 EOR

From Complus Trading North America LLC

Important Notes

Note: In reviewing well stimulating programs always consider the review of the well's core analysis data to understand each well's Clay content within the formation. If Clay is found in the Formation, then a 2 to 3% KCL (Potassium Chloride) should be used as a dilution with the water volume to prevent most Clays from swelling and inhabiting the oil flows. In cases where high levels of Smectite are found in the well's formation (Volumes Greater than 8%), then use our products are best used in conjunction with PHPA, or displaced with Nitrogen or CO2, during the stimulation process.







From Complus Trading North America LLC

Usage Instructions

AlphaZyme D400 PB High Temperature is a microemulsion/ nano particle product designed and formulated with co-solvents and surfactants to enhance the removal of polymers fluids and improving water floods by reducing surface tension, breaking down PHPA and changing producing rock from oil wet to water wet. This product also has an oil enhancing enzyme built to release oil imbibed in the rock.

AlphaZyme D400 PB High Temperature delivers superior water wetting characteristics in both carbonate and sandstone reservoirs. The result is a more efficient stimulation, with residual wetting, that enhances the performance and life of an oil or gas well and its longevity.

The AlphaZyme D400 PB (Polymer Breaker) High Temperature is a product developed to break up polymer damage in formations. This damage can be caused by previous water flood applications of polymer and also frac damage caused by polymer. AlphaZyme D400 PB (polymer breaker) is a special nano surfactant with added nano particles. This product is effective in all API levels.

Product Dilution

AlphaZyme D400 PB High Temperature is used to enhance water flood for oil recovery at .75 to 1 GPT treatment rates. If Diluted in RO water 50%, it can be used to treat at 1.5 to 2 GPT (Gallons per Ton).

AlphaZyme D400 PB High Temperature can also be used in frac application of new or stimulation of older wells. It is to be added into the frac fluid at .7 to 1 GPT and can be used at a high treatment level of 4 GPT. This product can be used at 301C/575F down hole for 60 days without failure of Surfactant performance.

Specific Gravity: 1.026 Appearance/Odor: Amber/Alcohol Odor

Flash Point: 2.05°F pH: 6 to 8





Alpha**Zyme** D400 PB

From Complus Trading North America LLC

AlphaZyme D400 PB High Temperature is recommended at a loading of .75 to 1.5 GPT in fracturing fluids. Do not allow to touch active acid in the formation. It is suggested to always run a compatibility of fluids. AlphaZyme D400 PB High Temperature is available in 55 gallon drums and various totes or bulk.

Important Notes

Note: In reviewing well stimulating programs always consider the review of the well's core analysis data to understand each well's Clay content within the formation. If Clay is found in the Formation, then a 2 to 3% KCL (Potassium Chloride) should be used as a dilution with the water volume to prevent most Clays from swelling and inhabiting the oil flows. In cases where high levels of Smectite are found in the well's formation (Volumes Greater than 8%), then use our products are best used in conjunction with PHPA, or displaced with Nitrogen or CO2, during the stimulation process.





AlphaSteamFlash-500 WB°

From Complus Trading North America

Usage Instructions

Description

Complus Trading North America, LLC offers ASF-500WB in a Liquid Surfactant Blend. This product has various specifically designed Stabilizers, Nano Surfactants, and Nano Particles for use in Heavy Oil Wells where Steam Injection Methods are used for oil extraction and increased well stimulation. It is designed to give excellent foaming characteristics upon injection into the well's formation. This foaming action allows for deeper formation penetration and increased dispersion, of the steam and our chemical additives, to advance further into all areas of the formation. ASF-500 WB is designed and contains specific products to handle and preform optimally in "High Temperature Well Environments".

The "Steam Injection Method for well stimulation" is designed for the delivery of chemicals deep into the formation. Steam Injection has a tendency for the steamed chemicals to travel the path of least resistance. With our ASF 500 WB the foam is directed into all areas of the formation. ASF-500 WB carries penetrating Nano Surfactants that helps penetrate heavy oils and bitumen, while delivering our Nano Particles to assist in breaking up the oil particles into smaller droplets thus allowing better flow back to the well bore and adding to better separation of the larger particles.

Specific Gravity: 1.021

PH: 8-9.





AlphaSteamFlash-500 WB®

From Complus Trading North America

Application

ASF-500WB is designed for steam injection into heavy oils, bitumen and/or tar sands.

*Concentrations levels of 20% to 30% at 10,000 ppm are commonly recommended for well stimulation applications and may vary from well to well depending on the specific oil characteristics and well formations being targeted. ASF-500WB is only to be used in hot water and steam applications. Increased ppm can be more beneficial.





AlphaZyme D-600 SB®

From Complus Trading North America

Usage Instructions

AlphaZyme D-600 SB is used as a sludge buster product to separate oil from mud and thus improve production by changing the viscosity of the oil. Temperature limit is 0 to 82 degrees Celsius. AlphaZyme D-600 is derived from AlphaZyme D-300 and contains as well enzymes, but cannot be used at high temperatures (i.e.: cannot be used inside wells for stimulation). **Do not allow AlphaZyme D-600 to freeze.**

<u>Treatment Calculation of AlphaZyme D-600 SB</u>

Givens: 201 Gallons per Cubic Yard

1.25 Cubic Yards per ton

times

60 tons per hour in the big frac tank mixer

Equals

75 Cubic Yards per hour processed by in the big frac tank mixer.

Application: 3 Gallons of D-600 per 30 yards of Sludge.

10 to 1 Ratio Yards to Gallons.

75 Cubic Yards

30 divided by 30 Cubic Yards

2,5

7,5 Gallons per hour of AlphaZyme D-600 SB





AlphaZyme D-600 SB®

From Complus Trading North America

Step by step application procedure

- 1. D-600 is sprayed on to Sludge, Ground and Mixed into Sludge prior to inserting into frac tank.
- 2. Water is then inserted in frac tank with Sludge treated with D-600
- 3. Additional mixing is done in tank.
- 4. Oil is released from Sludge and skimmed off of the top of the water.
- 5. Remaining water is removed and held for further reuse.
- 6. Remaining soil is then removed from frac tank.
- Optionally, the remaining soil can be bioremediated with our CCCP-7010 or CCCP-7010 DESERT BLOOM products, to be eventually reused as already fertilized agricultural soil.





AlphaZyme D-610 SB®

From Complus Trading North America

Usage Instructions

AlphaZyme D-610 SB is used as a sludge buster product to separate oil from mud and thus improve production by changing the viscosity of the oil. Temperature limit is 0 to 82 degrees Celsius. AlphaZyme D-610 SB is derived from AlphaZyme D-600 SB. While AlphaZyme D-600 SB contains enzymes, in the AlphaZyme D-610 SB the enzymes are replaced with engineered nano particles in order to give to clients a cost saving solution. **Do not allow AlphaZyme D-610 SB to freeze.**

Treatment Calculation of AlphaZyme D-610 SB

Givens: 201 Gallons per Cubic Yard

1.25 Cubic Yards per ton

times

60 tons per hour in the big frac tank mixer

Equals

75 Cubic Yards per hour processed by in the big frac tank mixer.

Application: 33 Gallons of D-610 SB per 30 yards of Sludge.

10 to 1 Ratio Yards to Gallons.

75 Cubic Yards

30 divided by 30 Cubic Yards

2,5

82,5 Gallons per hour of AlphaZyme D-610 SB





AlphaZyme D-610 SB°

From Complus Trading North America

Step by step application procedure

- 1. D-610 SB is sprayed on to Sludge, Ground and Mixed into Sludge prior to inserting into frac tank.
- 2. Water is then inserted in frac tank with Sludge treated with D-610 SB
- 3. Additional mixing is done in tank.
- 4. Oil is released from Sludge and skimmed off of the top of the water.
- 5. Remaining water is removed and held for further reuse.
- 6. Remaining soil is then removed from frac tank.
- Optionally, the remaining soil can be bioremediated with our CCCP-7010 or CCCP-7010 DESERT BLOOM products, to be eventually reused as already fertilized agricultural soil.





AlphaStripBTS-100 LT®

From Complus Trading North America

Alpha-Strip BTS (Bitumen & Tar Sands)-100 Lower Temperatures Microemulsion/ Nano Particle Technology

Description

Complus Trading North America, LLC offers our Alpha-Strip BTS-100 LT as a Liquid Microemulsion Surfactant with Nano Particles to enhance oil molecule penetration and molecule dispersion for use with Bitumen and Tar Sand Oils. This product is designed specifically to help strip the oils from sands when used on Tar Sands, while softening and braking up Bitumen type oil particles and into smaller droplets when used on Bitumen Oils. This allowing for higher levels of oil reclamation during the frothing tank processes.

Tar Sands Oils trap sands within the oil itself. By using our AS BTS-100 LT, with our proven microemulsion and nano particle technology, this product specifically softens the Tar Sand Oils and allows for the removal these oils from the sands. When used on Bitumen type oils, AS BTS-100 LT allows for these oil molecules to also soften so that these oils can be moved and handled more easily, thus reducing handling time of the Bitumen and reducing processing costs normally associated with Bitumen in the frothing reclamation and secondary separation recovery processes. This is all achieved through Complus Systems' specifically designed Nano Particles found in our oil penetrating Alpha-Strip Formulas. These Nano Particles helps pry and loosened oils from the sands by softening the molecules and softening the Bitumen molecules. This softening process enabling more oils to be captured and recovered in the secondary separation recovery process. This process now becomes faster, easier and more cost effective in handling these Tar Sands and Bitumen Hydrocarbons.





AlphaStripBTS-100 LT®

From Complus Trading North America

Our Nano Particles in this formula are < 5 Nano meters and is a sodium metasilicate.

Specific Gravity: 1.021

PH:8-9

Application

AS-BTS-100 LT is designed to be used during the Bitumen and/or Tar Sands Frothing Tank Reclamation and Secondary Separation Recovery Processes.

*Concentrations 1 GPT or 1000 ppm are commonly recommended for application but may vary due to the quality and content of the Bitumen and Oil Sands being treated. This product performance can be improved in hot water at < 180F.

Products are available for secondary recover thru Centrifuges.





AlphaStripBTS-110 HT®

From Complus Trading North America

Alpha-Strip BTS (Bitumen & Tar Sands)-110 Higher Temperatures
Microemulsion/ Nano Particle Technology

Description

Complus Trading North America, LLC offers our Alpha-Strip BTS-110 HT as a Liquid Microemulsion Surfactant with Nano Particles to enhance oil molecule penetration and molecule dispersion for use with Bitumen and Tar Sand Oils. This product is designed specifically to help strip the oils from sands when used on Tar Sands, while softening and braking up Bitumen type oil particles and into smaller droplets when used on Bitumen Oils. This allowing for higher levels of oil reclamation during the frothing tank processes.

Tar Sands Oils trap sands within the oil itself. By using our AS BTS-110 HT, with our proven microemulsion and nano particle technology, this product specifically softens the Tar Sand Oils and allows for the removal these oils from the sands. When used on Bitumen type oils, AS BTS-110 HT allows for these oil molecules to also soften so that these oils can be moved and handled more easily, thus reducing handling time of the Bitumen and reducing processing costs normally associated with Bitumen in the frothing reclamation and secondary separation recovery processes. This is all achieved through Complus Systems' specifically designed Nano Particles found in our oil penetrating Alpha-Strip Formulas. These Nano Particles helps pry and loosened oils from the sands by softening the molecules and softening the Bitumen molecules. This softening process enabling more oils to be captured and recovered in the secondary separation recovery process. This process now becomes faster, easier and more cost effective in handling these Tar Sands and Bitumen Hydrocarbons.





AlphaStripBTS-110 HT®

From Complus Trading North America

Our Nano Particles in this formula are 10 to 15 Nano meters and is a special coated sodium silicate.

Specific Gravity: 1.021

PH:8-9

Application

AS-BTS-110 HT is designed to be used during the Bitumen and/or Tar Sands Frothing Tank Reclamation and Secondary Separation Recovery Processes.

*Concentrations 1 GPT or 1000 ppm are commonly recommended for application but may vary due to the quality and content of the Bitumen and Oil Sands being treated. This product performance can be improved in hot water up to 300F.

Products are available for secondary recover thru Centrifuges.







Usage Instructions

The SME-110 is a surfactant microemulsion product that can be pumped with acid or without acid touching the product. Temperatures are restricted to below 180F or 82C. This is also available in a Heat Resistant product SME-110H for temperatures up to 400F or 204C. This product changes the wettability of the rock or formation from Oil Wet to Water Wet and can be used during both the Fracking and the Well Stimulation Process. SME-110 and SME-110H are products that works ideally in oils ranging between 26 API to 70 API. These products improve oil flows and are formulated to prevent paraffin build ups in well's flow lines

Product Dilution

It is pumped in Well Stimulation Programs at the Bull Head, with or without HCL, at 3 to 4 Gallons Per Thousand (GPT).

How to use it

- Mix SME-110 or SME-110H at 3 to 4 GPT directly into 2% to 3%
 True KCL (No Substitute KCL should ever be used).
- These products are to be pumped directly into the formation using the normal pumping methods used for Well Stimulation.
- Soak times range between 7 to 14 plus days at a minimum.
- Once the optimum Soaking Period has been met the well flow should only be opened to a maximum of Flow Rate of a 30% capacity for the next 2 months. The Flow Rate should gradually be opened to full flow over the next 2 months. This process will help insure, that the SME-110 and SM-110H stays working in the formation and is not passed out immediately during of the oil recovery process.





SME-110° EOR

From Complus Trading North America LLC

Important Notes

Note: In reviewing well stimulating programs always consider the review of the well's core analysis data to understand each well's Clay content within the formation. If Clay is found in the Formation, then a 2 to 3% KCL (Potassium Chloride) should be used as a dilution with the water volume to prevent most Clays from swelling and inhabiting the oil flows. In cases where high levels of Smectite are found in the well's formation (Volumes Greater than 8%), then use our products are best used in conjunction with PHPA, or displaced with Nitrogen or CO2, during the stimulation process.







Usage Instructions

The SME-120 is a microemulsion that is used in Bull Head applications or injected with normal Frac Fluids. It has a temperature limit of 180F or 82C. It works in all permeability and porosity. SME-120 is a concentrated formula.

Product Dilution

Mix SME-120 at 3 to 4 GPT directly into 2% to 3% True KCL (**No Substitute KCL should ever be used**).

How to use it

- SME-120 is to be pumped directly into the formation using the normal pumping methods used for Well Stimulation.
- Soak times range between 7 to 14 plus days at a minimum.
- Once the optimum Soaking Period has been met the well flow should only be opened to a maximum of Flow Rate of a 30% capacity for the next 2 months. The Flow Rate should gradually be opened to full flow over the next 2 months. This process will help insure, that the SME-120 stays working in the formation and is not passed out immediately during of the oil recovery process.





SME-**120**° EOR

From Complus Trading North America LLC

Important Notes

Note: In reviewing well stimulating programs always consider the review of the well's core analysis data to understand each well's Clay content within the formation. If Clay is found in the Formation, then a 2 to 3% KCL (Potassium Chloride) should be used as a dilution with the water volume to prevent most Clays from swelling and inhabiting the oil flows. In cases where high levels of Smectite are found in the well's formation (Volumes Greater than 8%), then use our products are best used in conjunction with PHPA, or displaced with Nitrogen or CO2, during the stimulation process.







From Complus Trading North America LLC

Usage Instructions

VME-100 is a microemulsion product with nano particles at 1-2 nano meters. This is used in Well Head application for well stimulations. It works well in all permeabilities and porosities. Best used in sandstone, in tight well formations and unconventional formations. Temperature limits at 180F or 82C. Not available in Heat Resistant Formula. VME-110 works ideally in API in 26 to 70's.

Product Dilution

Mix VME-100 at 3 to 4 GPT directly into 2% to 3% True KCL (**No Substitute KCL should ever be used**).

How to use it

- VME-100 is to be pumped directly into the formation using the normal pumping methods used for Well Stimulation.
- Soak times range between 7 to 14 plus days at a minimum.
- once the optimum Soaking Period has been met the well flow should only be opened to a maximum of Flow Rate of a 30% capacity for the next 2 months. The Flow Rate should gradually be opened to full flow over the next 2 months. This process will help insure, that the VME-100 stays working in the formation and is not passed out immediately during of the oil recovery process.





VME-100° EOR

From Complus Trading North America LLC

Important Notes

Note: In reviewing well stimulating programs always consider the review of the well's core analysis data to understand each well's Clay content within the formation. If Clay is found in the Formation, then a 2 to 3% KCL (Potassium Chloride) should be used as a dilution with the water volume to prevent most Clays from swelling and inhabiting the oil flows. In cases where high levels of Smectite are found in the well's formation (Volumes Greater than 8%), then use our products are best used in conjunction with PHPA, or displaced with Nitrogen or CO2, during the stimulation process.







Usage Instructions

VME-120 is a microemulsion product with nano particles with 10-15 nano meters. This is a Bull Head application for stimulation. Best for Chalk formations and limestone. Temperature limits at 250F or 121C. This works best in conventional formations in normal stimulations and in water floods. This product is available in a high temperature formula VME-120H.

Product Dilution

Mix VME-120 at 3 to 4 GPT directly into 2% to 3% True KCL (**No Substitute KCL should ever be used**).

How to use it

- VME-120 is to be pumped directly into the formation using the normal pumping methods used for Well Stimulation.
- Soak times range between 7 to 14 plus days at a minimum.
- once the optimum Soaking Period has been met the well flow should only be opened to a maximum of Flow Rate of a 30% capacity for the next 2 months. The Flow Rate should gradually be opened to full flow over the next 2 months. This process will help insure, that the VME-120 stays working in the formation and is not passed out immediately during of the oil recovery process.





VME-120° EOR

From Complus Trading North America LLC

Important Notes

Note: In reviewing well stimulating programs always consider the review of the well's core analysis data to understand each well's Clay content within the formation. If Clay is found in the Formation, then a 2 to 3% KCL (Potassium Chloride) should be used as a dilution with the water volume to prevent most Clays from swelling and inhabiting the oil flows. In cases where high levels of Smectite are found in the well's formation (Volumes Greater than 8%), then use our products are best used in conjunction with PHPA, or displaced with Nitrogen or CO2, during the stimulation process.



