

Drilling Fluid Products

DF - Drilling Fluid Products



North America 1-800-669-3542
International +1-705-647-8138

PAGE: DF1



www.timeltd.ca

Drilling Fluids - Viscosifiers

Hi Yield Bentonite



Product Number: 9410017

Applications

Hi Yield Bentonite is used to rapidly build mud viscosity and provide superior hole cleaning, as well as to help control lost circulation, formation sloughing and promote hole stability in unconsolidated formations. Typical uses are in:

- Potable-water wells
- Mineral exploration (coring and rotary drilling)
- Horizontal directional drilling; construction and gel-foam air drilling operations

Advantages

- 93% passing through 200 mesh grind specification ensures rapid hydration with limited mixing equipment
- Yields more quickly than API-standard bentonite; increased penetration rates due to lower solids content than standard API bentonite systems; non-toxic and proven suitable for use in drilling potable water wells.
- Transportation and storage costs are reduced due to lower treatment requirements a compared to API bentonite

HI YIELD BENTONITE is a premier ultra fine grind bentonite blended with special extenders, producing a product that will yield more than twice as much viscosity as API Wyoming bentonite. Hi Yield Bentonite is an easily mixed bentonite for freshwater and extended bentonite systems.

Typical Physical Properties

Physical appearance	Light tan/ gray-green powder
Specific gravity	2.3 – 2.5
Approximate yield	210 bbl/ton

Packaging and Storage

Hi Yield Bentonite is supplied in 50 lb/22.7 kg, multi wall bags at 70 bags per pallet. Store in a dry location (slip hazard when wet) and minimize dust (use dustless systems for handling, storage and cleanup).

Typical Amounts of Hi Yield Bentonite Added to Freshwater			
Drilling Application/Desired Results	lb/100 gal	lb/bbl	Kg/m3
Normal drilling	15 - 25	6 - 11	15 - 30
In gravel or other poorly consolidated formation	25 - 40	12 - 18	35 - 50
Lost-circulation control	35 - 45	15 - 20	40 - 45
Added to freshwater mud to improved hole-cleaning properties, increase hole stability and develop filter cakes	5 - 10	2 - 5	6 - 14



Drilling Fluids - Viscosifiers

CORE Warrior dry

Application

Core Warrior dry is a high molecular-weight dry polymer designed for cuttings encapsulation and shale stabilization. It is frequently used in core drilling applications as a general polymer product that acts as a viscosifier, friction reducer, flocculant and provides some fluid loss control. It is also formulated for easy mixing and is extremely beneficial for core drilling applications where good mixing equipment is not available.



Product Number
9410056

CORE Warrior dry is a high molecular-weight polymer designed for cuttings encapsulation and shale stabilization developed for use in low solids to weighted muds in fresh and salt make-up water.

CORE Warrior dry acts as a viscosifier, friction reducer, and flocculant.

CORE Warrior dry mixes in just minutes, with full hydration in under 5 minutes. That is compared to 20-30 minutes for standard dry polymers. CORE Warrior dry ensures the contractor has confidence his polymer fluid is ready to drill with in under 5 minutes. That means no product is wasted and no need to clean unhydrated polymer from the tank bottom.

Method of Addition

Mix CORE Warrior dry slowly into the active mud system to prevent "fish eyes" or pre-mix at higher concentrations in a separate pit or chemical barrel, then blend into the active mud system.

For sweeps, mix CORE Warrior dry directly in the active system at the suction pit or pre-mix a high concentration in a separate pit and wait for the polymer to fully yield before pumping.

Advantages

- Rapidly hydrates
- Excellent cutting encapsulation
- Enhances the removal of drill solids
- Improves shale stabilization
- Can be used in fresh to saline water

Typical Physical Properties

Physical appearance	White, granular powder
Specific gravity	1.25 – 1.40
pH (1% solution)	7.7
Activity	> 90%
Nature of charge	Anionic

Recommended Dosage: 0.75 - 1.5 litres per 1000 litres of water

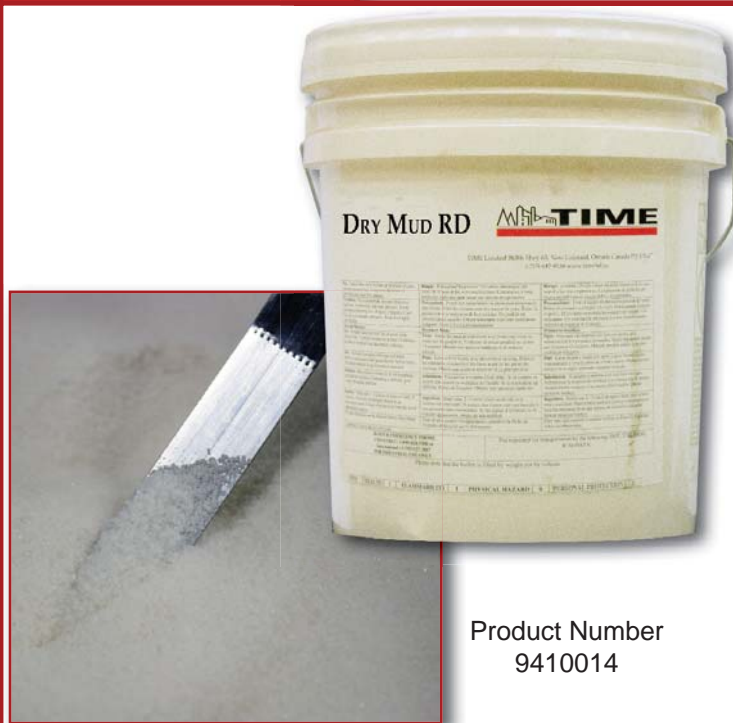
Packaging and Storage

CORE Warrior dry is supplied in 5 gal/18.9 L pails.



Drilling Fluids - Viscosifiers

DRY MUD RD



Product Number
9410014

Applications

- Dry Mud RD provides excellent cuttings encapsulation and improved wellbore stability. Typical concentrations are 0.25 to 1 lb/bbl (0.71 to 2.85 kg/m³). It is also effective in salt muds, such as KCl- or NaCl- enhanced fluids, although slightly higher concentrations may be required.
- Dry Mud RD may be used in clear-water, solids-free drilling fluids. Dry Mud RD enhances solids removal by flocculating low gravity solids and increasing viscosity while providing cuttings encapsulation and improved wellbore stability.
- Dry Mud RD extends bentonite to increase viscosity, flocculates drill solids for more efficient removal and encapsulates cuttings while improving wellbore stability.
- Dry Mud RD can be used in weighted fluids for cuttings encapsulation, improved wellbore stability, viscosity and improved filter cake integrity.
- Viscous Dry Mud RD sweeps are effective for periodic hole cleaning to help clear accumulated cuttings and maintain a clean hole.

DRY MUD RD polymer is a readily dispersible, high molecular weight polymer designed to provide cuttings encapsulation and shale stabilization. It is formulated for easy mixing with improved dispersion to eliminate "fish eyes." TIME DRY MUD RD also acts as a viscosifier, friction reducer and flocculant. It can be used in mud systems ranging from low solids to weighted muds, utilizing makeup waters from fresh to saltwater, with improved dispersion to eliminate "fish eyes".

Advantages

- Readily dispersible and does not form "fish eyes"
- Excellent cuttings encapsulation that limits cuttings dispersion
- Improved shale stabilization.
- Aids in preventing balling on the bit, stabilizers and bottom-hole assembly by coating and lubricating solids
- Enhances the removal of drill solids

Method of Addition

Dry Mud RD can be mixed directly into the active mud system or premixed at higher concentrations in a separate pit or chemical barrel, then blended into the active system. Sweeps may be prepared by mixing Dry Mud RD directly in the active system at the suction pit or by premixing a high concentration in a separate pit and allowing the polymer to fully yield before being pumped.

Packaging and Storage

Dry Mud RD is supplied in 55 lb/22.7 kg, multi-wall, paper sacks, 5 gal/18.9-L pails, and 1 kg plastic bottles.

Typical Physical Properties

Physical appearance	White, granular powder
Odor	Slightly hydrocarbon
Specific gravity	1.25 – 1.40
pH (1% solution)	7.7
Bulk density	40–46 lb/ft ² (641 – 737 kg/m ³)
Nature of charge	Anionic
Activity	> 90%

Typical Properties of DRY MUD RD in Freshwater			
Concentration	PV	YP	Marsh Funnel
(lb/bbl [kg/m ³])	(cP)	(lb/1 00 ft ²)	(sec/qt)
0.125 (0.4)	2	1	28
0.25 (0.7)	3	2	31
0.50 (1.4)	4	4	34
0.75 (2.1)	6	8	46
1.00 (2.9)	9	11	60
1.50 (4.3)	15	17	110



North America 1-800-669-3542
International +1-705-647-8138

PAGE: DF4



www.timeltd.ca

Drilling Fluids - Viscosifiers

DD-2000



Product Number: 420-06

Application:

Due to the nature of the product, it should only be used on drills where proper mixing equipment is available in order to obtain proper viscosity yield. When mixed properly, DD 2000 is one of the finest and most economical viscosifiers available. DD 2000 can be used in conjunction with all Matex drilling fluid products.

Description:

DD 2000 is an environmentally safe, very high molecular weight, powdered viscosifier that can be used in either fresh or brine water. It can be used in the diamond, rotary, or percussive drilling. DD 2000 increases viscosity and imparts excellent viscosity yield. It is a superior product in overburden, sand, and gravel areas.

Dosage:

The recommended dosage of DD 2000 is from 0.5 to 2.0 pounds per 100 gallons (0.7-2.4 kg/1000 liters) of water.

Handling:

No special precautions are necessary. Contact with skin and eyes should be avoided.

Shipping and Storage:

DD 2000 is shipped in either 5 gallon (20 liter) pails or 55 pound boxes (25 kg), 25-1 kg bags/box. DD 2000 can be stored either indoors or outdoors, but must be kept dry prior to use



Drilling Fluids - Viscosifiers

Drill Liquid



Product Number: 9410013

Applications

- *Drill Liquid polymer systems.* Drill Liquid provides excellent cuttings encapsulation and improved wellbore stability. Typical concentrations of Drill Liquid are 0.75 to 3 lb/bbl (2.1 to 8.5 kg/m³). It is also effective in KCl or NaCl enhanced fluids.
- *Clear-water fluids.* Drill Liquid may be used in clear-water, solids-free drilling fluids. It increases viscosity and removes solids by flocculation. It also provides cuttings encapsulation and improved wellbore stability.
- *Low-Solids, Non-Dispersed (LSND).* In reduced-bentonite fluids, Drill Liquid acts as a bentonite extender to increase viscosity, flocculates drill solids for more efficient removal, encapsulates cuttings and improves wellbore stability.
- *Weighted muds.* Drill Liquid can be used in weighted fluids for cuttings encapsulation and improved wellbore stability.
- *Drill Liquid sweeps.* Viscous sweeps are effective for periodic hole cleaning.

Advantages

- Provides excellent cuttings encapsulation and limits cuttings dispersion
- Provides improved shale stabilization
- Enhances the removal of drill solids
- Mixes and yields easily
- Aids in preventing balling on the bit, stabilizers and bottom-hole assemblies by coating and lubricating solids

DRILL LIQUID polymer is a high-molecular-weight, anionic liquid designed to provide cuttings encapsulation and shale stabilization. Drill Liquid also acts as a viscosifier, friction reducer and flocculant. Drill Liquid can be used in both fresh and saline make up water.

Method of Addition

Drill Liquid may be mixed directly into the active mud system or premixed at higher concentrations in a separate pit or chemical barrel and added as needed to the active system. A small, steady stream of Drill Liquid injected into the flow line will provide selective flocculation of drill solids. Sweeps may be accomplished by mixing the polymer directly in the active system at the suction pit or by pouring small quantities (1 to 2 cups) directly into the drill string during connections.

Typical Physical Properties

Physical appearance	Cream colored, opaque liquid
Odor	Slightly hydrocarbon
Viscosity (typical)	~ 500 cP
Specific gravity	1.07 – 1.10
pH (1% Solution)	8.0 – 9.0
Flash point	>200° F (93.3° C) (PMCC)
Pour point	-20°F/-28.9°C

Packaging and Storage

Drill Liquid is supplied in 5 gal/18.9 L plastic pails.

Approximate Amounts of Drill Liquid Added to Drilling Fluid Systems			
Drilling Application	qt/100 gal	pints/bbl	L/m ³
Fresh water			
Stabilizes water-sensitive formation	1.00	1.00	2.50
Reduces torque and pump pressure, and increases hole stability	1.50	1.25	3.75
Low-Solids, Non-Dispersed (LSND)	0.50	0.50	1.25
3% KCl drilling system	2.00	1.75	5.00
Injection liquid in air/foam applications	0.50-1.00	0.50-1.00	1.25-2.50



Drilling Fluids - Viscosifiers

Liquid Mud Plus



Product Number
9410012

Applications

- **Viscosity** - Liquid Mud Plus viscosifies rapidly and exhibits excellent hole-cleaning characteristics under low shear rates. It allows for easy solids deposition in settling pits when used in core drilling.
- **Shale Stabilization/Inhibition** - Liquid Mud Plus, alone or in conjunction with KCl or substitutes, is used to stabilize active shales by encapsulating the drilled cuttings and inhibiting formation swelling.
- **Foam Enhancement** - Liquid Mud Plus creates thicker, stronger drill foams improving the fluid's cuttings-carrying capacity and resisting water inflows.
- **Flocculant** - Liquid Mud Plus acts as a flocculant at .01-.05 ppb (.03-0.14 kg/m).

Advantages

- Concentrated polymer content
- Stabilizes clay, shale and mudstone formations
- Compatible with most drilling fluids additives
- Excellent all-round lubricant
- Can be used with foam to help stabilize loose formations and improve cuttings carrying
- Longer shelf life than other liquid polymers
- Improves core recovery

LIQUID MUD PLUS is a 50 % active synthetic polymer developed for use in freshwater and saltwater base drilling fluids. It is a unique dispersion grade liquid PHPA that resists freeze/thaw degradation and phase separation.

Typical Physical Properties

Physical appearance	White liquid dispersion
Odor	Slightly hydrocarbon
Viscosity (typical)	200 – 500 cP
Specific gravity	1.06–1.08
pH (1% Solution)	16.5 –7.5
Flash point	248°F/120°C

Packaging and Storage

Liquid Mud Plus is supplied in 5 gal/18.9 L pails.

Approximate Amounts of Liquid Mud Plus Added to Drilling Fluid Systems			
Drilling Application	qt/100 gal	pints/bbl	L/m3
Fresh water			
Stabilizes water-sensitive formation	0.60	0.60	1.50
Reduces torque and pump pressure, and increases hole stability	1.00	0.75	2.25
Low-Solids, Non-Dispersed (LSND)	0.30	0.30	0.75
3% KCl drilling system	1.20	1.00	3.00
Injection liquid in air/foam applications	0.30-0.60	0.30-0.60	0.75-1.50



Drilling Fluids - Grease

Rod Grease Plus (+)



Product Number
9410054

Application

Rod Grease Plus (+) is applied to the outside of the drill pipe prior to putting it into the hole. It is ready to go directly out of the pail.

Advantages

- Drilling efficiencies increases
- Great adhesion under most conditions
- Resistant to hard, saline water
- Thermally stable, extreme pressure resistance
- Can be applied to wet surfaces
- Reduces wear
- Reduces vibration and rotational torque
- Improves productivity
- Protects metal surfaces.

ROD GREASE PLUS (+) is the heavyweight of our rod greases. It is a super tacky and a super heavy duty rod grease designed to provide a superb coating of diamond drill rods in the most extreme and demanding surface or underground drilling applications. The super tacky texture guarantees maximum grease adherence and coating of the drill rods. This heavy duty, super tacky grease coat provides unmatched resistance to water washout and centrifugal separation. Rod Grease Plus prevents rod chattering or binding while in the hole and is fortified with excellent rust preventative additives to keep rods in premier condition while in storage. Also features excellent extreme pressure properties and load carrying ability.

Packaging and Storage

Rod Grease Plus (+) is supplied in 5 gal/18.9 L pails.

NLGI ASTM TEST	ROD GREASE +
NLGI Grade	3
Cone Penetration @ 77°F, Worked 60 Strokes	220-250
Thickener Type	BARIUM COMPLEX
Thickener Content, %	25-40
Dropping Point, °F	400 MIN.
Base Oil Viscosity Sus @ 40°C Sus @ 100°C	490-540 55-65
Viscosity Index	75
Color	TAN
Appearance	FIBROUS
Flash Point, °F.	350
Pour Point, °F.	20



Drilling Fluids - Grease

ECO Rod Grease



Product Number
9410055

ECO Rod Grease is an environmentally responsible diamond drill rod lubricant. This rod lubricant contains no heavy metals or other harmful or environmentally undesirable additives.

Advantages

- Exceptional lubricity
- High load carrying capability
- Thermal stability
- Rust protection
- Excellent water washout resistance

ECO ROD GREASE is a premium quality diamond drill rod grease. Eco-friendly and environmentally responsible, ECO Rod Grease does not contain any heavy metals or environmentally damaging additives. It significantly reduces the risk of environmental contamination.

ECO Rod Grease uses polymer additives to give the product tacky fibers. These tacky fibers are combined with the innovative overbased calcium sulfonate complex thickener and high-quality base oil. This formulation creates excellent mechanical stability and supreme long lasting adhesion to the drill rod, preventing wipe off. ECO Rod Grease does not contain any of the following harmful additives: antimony, barium, chlorine, lead, copper, graphite, phosphorus, sulfur, zinc.

Packaging and Storage

Eco Rod Grease is supplied in 5 gal/18.9 L pails.



OTHER ENVIRONMENTALLY
CONSCIOUS ROD GREASE



ECO ROD GREASE

NLGI ASTM TEST	ECO ROD GREASE
Water Spray Off	1.50%
Dropping Point	550°F
NLGI Grade	3
Weld Point (EP)	620
Timken OK Load	65
Base Oil ISO Grade	460



Drilling Fluids - Grease

BESTOLIFE ZN50



Applications

- Tool joints
- Drill collars
- Drilling and coring bits

Advantages

- Meets all applicable API and IADC standards
- Available in 40%, 50%, 60% formulas

Product #	Product Name	Size
420-60	ZN 50	10 lbs
420-601	ZN 50	40 lbs

ZN 50 is a zinc based thread compound made with finely powdered metallic zinc. It contains 50% zinc as well as H₂S and oxidation inhibitors.

Typical Physical Properties

Physical appearance	gray
Penetration	290 – 310 (ASTM D 217)
Weight/gallon	15.0 lbs/gal
Dropping point	385°F/196°C (min)
Flash point	350°F/177°C (typ)
Brushable to	10°F/-12°C
Service rating	350°F/177°C
Torque factor	1.0 (per API RP 7A1)

Packaging and Storage

ZN 50 is supplied in 10 lb and 40 lb plastic pails.



Drilling Fluids - Grease

BESTOLIFE "4010"® NM



Product Number
420-118

Applications

- Rotary collars

Advantages

- Low environmental impact
- Superior downhole galling resistance
- Applies easily in extreme conditions

Typical Physical Properties

Physical appearance	grey
Penetration	300 – 330 (ASTM D217)
Weight/gallon	10.4 lbs/gal
Dropping point	550°F/288°C
Flash point	396°F/202°C
Brushable to	-40°F/-40°C
Torque factor	1.0 (per API RP 7A1)
Salt spray	1500 hrs. min. (ASTM B117)

BESTOLIFE "4010"® NM is the fourth generation of the highly successful Bestolife family of compounds designed to address the environmental concerns related to the use of thread compounds for rotary shouldered and premium connections. "4010" NM was especially developed for the ecologically sensitive areas of the world, such as the North Sea, Nova Scotia, Newfoundland, the South Atlantic, Alaska, and Sakhalin Island.

Bestolife "4010"® NM combines the excellent low temperature application properties of Bestolife 3010® ULTRA with superior downhole galling resistance and enhanced ecotoxicological properties to provide the ideal drill-string solution for all rotary shouldered (drill pipe/tool joints/drill collars) and many proprietary premium self-sealing casing/tubing connection applications, irrespective of offshore drilling location.

Bestolife 4010® NM has the ability to prevent galling of contact surfaces (including non-magnetic materials) under high bearing loads and to form a continuous gasket between the shoulders of a rotary connection during make-up. This is achieved through the innovative combination of graphite and other non-toxic materials, which interact to form a seal when compressed between seals, threads, and shoulders during make-up to provide performance properties which are equal to the very best heavy metal compounds. The gasket-like seal prevents connection wash-out, even under high internal fluid pressures and the combined loading of directional drilling, to provide maximum protection in the toughest conditions. Also effective for use on slides, jacking systems, cantilever type rigs and assemblies.

Bestolife 4010® NM applies easily to cold wet connections exposed to seawater in ambient temperatures as low as -40°F/-40°C and yet provides optimum protection in the deepest, hottest holes. Will provide lubrication and protection to 600°F/316°C and the solids will protect to 1000°F/538°C.

Packaging and Storage

Bestolife "4010"® NM is supplied in 30lbs pail.



Drilling Fluids - Grease

Copper Supreme Special Blend®



Product Number
420-69

Applications

- Tool joints
- Drill collars
- Drilling and coring bits

Advantages

- Meets all applicable API and IADC standards
- Available in 40%, 50%, 60% formulas

COPPER SUPREME SPECIAL BLEND® was developed to address environmental restrictions and exposure concerns associated with lead and zinc based thread compounds. It contains copper flake combined with a proprietary blend of amorphous and synthetic graphites, along with oxidation and H₂S inhibitors, in a high temperature base grease.

Typical Physical Properties

Physical appearance	dark copper
Penetration	300 – 320 (ASTM D 217)
Weight/gallon	10.2 lbs/gal
Dropping point	500°F/260°C (min)
Flash point	385°F/196°C (typ)
Brushable to	15°F/-9°C
Service rating	600°F/316°C
Torque factor	1.1 (per API RP 7A1)

Packaging and Storage

Copper Supreme Special Blend is supplied in 30lbs pail.



BESTOLIFE "3010"® ULTRA



Product Number
420-55

Applications

- Rotary collars
- Effective for use on open gear jackup legs

Advantages

- Low environmental impact

Typical Physical Properties

Physical appearance	black
Penetration	320 – 350
Weight/gallon	10.4 lbs/gal
Dropping point	310°F/154°C
Flash point	330°F/166°C
Brushable to	-49°F/-45°C
Torque factor	1.0 (per API RP 7A1)

BESTOLIFE "3010"® ULTRA was developed to address environmental concerns related to the use of thread compounds for rotary shouldered connections that contain high levels of heavy metals, such as lead, copper and zinc. It is a development of the proven Bestolife "3000"® formulation with enhanced low temperature application properties designed for use in the coldest, wettest operating conditions, such as encountered in the North Sea, Nova Scotia, Newfoundland, the South Atlantic, Alaska and Sakhalin Island.

Bestolife "3010"® ULTRA has the ability to prevent galling of contact surfaces (including non-magnetic materials) under high bearing loads and to form a continuous gasket between the shoulders of a rotary connection during make-up. This is achieved through the innovative combination of a variety of amorphous and synthetic graphite based materials, as first used in "3000"®, interacting to form a seal when compressed between the shoulders during make-up to provide performance properties equal to the very best heavy metals compounds. This gasket like seal prevents connection wash-out, even under high internal fluid pressures and the combine loading of directional drilling, to provide maximum protection in the toughest conditions.

Bestolife 3010® ULTRA applies easily to cold wet connections exposed to seawater in ambient temperatures as low as -49° F/ -45° C and yet provides optimum protection in the deepest, hottest holes. The grease in Bestolife 3010® ULTRA will provide lubrication and protection to 400° F/ 204° C and the solids will protect to 1000° F/538° C.

Packaging and Storage

Bestolife "3010"® ULTRA is supplied in 3.5 gal pails.



Drilling Fluids - Degreaser

ECO Citrus Degreaser



Product Number: 49-17

Applications

Eco Citrus Degreaser is used in the mining industry as a core release lubricant. In general use it has excellent performance as a cleaner or degreaser and can be diluted with water as needed for the required application.

Advantages

- 100% butyl free
- Approved for use in food plants by the Canadian Food Inspection Agency

TIME's ECO CITRUS DEGREASER is a concentrated degreaser that is 100% butyl free, petroleum free, containing biodegradable surfactants. Fresh citrus scent.

Typical Physical Properties

Physical Appearance	orange clear liquid
Specific Gravity	1.024
pH	12.0 – 13.0
Solubility in Water	yes

Packaging and Storage

Eco Citrus Degreaser is supplied in 4 L bottle, 20 L pail and 200 L drums.



Drilling Fluids - Lubricants

Linseed Soap



Product Number
420-31

Applications

Linseed Soap is a very effective environmentally friendly lubricant principally found in mining and drilling operations as a core release lubricator. It has wide acceptance in fresh water environments as a non-toxic, biodegradable replacement for petroleum based lubricants in certain applications.

Advantages

- Phosphate free and biodegradable; it is an organic linseed oil-based product
- Handles more easily than its alternative, a slimy watery product.
- Rinses easily from samples as it is fully water soluble
- Considered to be a superb mould release agent for rubber and fiberglass
- Because it is biodegradable spills and disposal present no problems

TIME's Linseed Soap is manufactured in a unique paste consistency which is ideal for use in the mining industry. It is an amber coloured opaque paste that consists of potassium salts of saturated and unsaturated fatty acids.

Safety Precautions

Spills of Linseed Soap are extremely slippery. Spills must be cleaned up immediately, especially on hard surfaces, to prevent skidding of personnel or equipment.

Typical Physical Properties

Physical appearance	amber opaque paste
---------------------	--------------------

Packaging and Storage

Linseed Soap is supplied in 11 kg and 23 kg pails.



Drilling Fluids - Lubricants

Torqueless



Product Number: 420-15

The Environmentally friendly drilling product for reducing hole torque, limiting wear and rusting of the rods while extending the product life of the drill bit.

- TORQUELESS is not just another soluble lube, it pays its way.
- TORQUELESS has produced both bit-life and penetration rate increases during operations.
- TORQUELESS is based on an environmentally safe technology which has proven to be effective in lubricating down-hole consumables for over a decade.
- TORQUELESS is non-sheening when accidentally introduced into a water course.
- TORQUELESS inhibits swelling of clay like materials such as saponites, talcs & kimberlites.
- TORQUELESS is extremely effective for lubricating both down-hole hammers and protecting against drill pipe wear during horizontal drilling (eliminating the need for rock drill oil.)
- TORQUELESS protects drill rod wear when bending your rods.
- TORQUELESS increases tool joint life by reducing torque in the hole.
- TORQUELESS will enhance the effectiveness of powdered mud systems (bentonites, polymers or pac's). Combined with the appropriate fluids and mixing systems, Torqueless HDD will reduce stuck drill rods and lost casing in squeezing ground conditions
- TORQUELESS will enhance head and rail life. When tripping pipes the product coats the rails not covering them with granules.
- TORQUELESS will add longevity to rod threads.
- TORQUELESS will strip rust off your tooling.
- TORQUELESS enhances and protects directional mud motors.
- TORQUELESS keeps in hole tools lubricated and cool.

SUGGESTED DOSAGE: 1 liter of product per 1000 liters of water (1 quart – 250 gallons)



Drilling Fluids - Lubricants

Torque-Ease



Product Number
9410041

Applications

Improved lubricity results in torque and drag reduction allowing faster, deeper and highly deviated drilling. It is effective in lateral drilling operations such as Horizontal Directional Drilling (HDD) and in mining coring operations where rate of penetration improvements and hole stability are required.

Advantages

- Improves lubricity
- Easily disperses in WBM
- Does not affect mud rheology
- Improves API filtration properties
- Compatible in arctic drilling conditions and is thermally stable to + 300°F.

TORQUE EASE is an ecologically friendly drilling fluid lubricant and shale control additive for water based mud systems. It is based on oleo chemicals, which are derived from natural oils and fats, and is therefore 100% biodegradable.

Method of Addition

- Torque Ease can be added at 0.5–1.0 % by volume for torque and drag reduction.
- Torque Ease can be added at 0.5-2.0% by volume for shale control.
- Torque Ease can be spotted in its concentrated form across a zone where drill pipe is stuck. Sufficient soaking time should be allowed while tension and torque is applied to free rod.

Typical Physical Properties

Form	Dark liquid
Specific gravity	0.900
pH in water	6 – 7
Solubility in water	Highly dispersible

Packaging and Storage

Torque Ease is supplied in 5 gal/18.9 L pails.



Drilling Fluids - Lubricants

Premium Lube



Product Number
9410004

Applications

Premium Lube additive mixes instantly and is not affected by water quality. To develop rod protection and reduce torque after drilling has started, consideration must be given to the number of rods and amount of fluid in the hole.

Advantages

- Reduces torque
- Prevents rust and scale
- Environmentally safe
- Increases penetration rates
- Extends bit and mud motor life
- Increases mud motor efficiency
- Reduces wear on rods and equipment
- Maximizes rig potential and steering control
- Enhances the effectiveness of powdered drilling fluid additives

TIME Premium Lube is based on technology designed to minimize environmental impact. Our Premium Lube reduces the amount of torque and drag, therefore the operator can use the drill rig to its maximum potential because steering control is precise and thrusts and pulls are at a minimum.

Typical Physical Properties

Appearance	Liquid
Odour	Slight
pH	6 - 9 (50 g/l in water)
Solubility in water	Yes
Specific Gravity	1.0-1.05

Packaging and Storage

TIME PREMIUM LUBE is supplied in 5 gal/18.9 L pails and 55 gal drums. Store in a well-ventilated area away from sources of heat or ignition.



North America 1-800-669-3542
International +1-705-647-8138

PAGE: DF18



www.time ltd.ca

Lost Circulation & Fluid Loss Control

PAC Mud



Product Number: 9410019

Applications

Pac Mud controls fluid loss and provides viscosity in freshwater, seawater, KCl and salt muds. It forms a thin, resilient, low permeability filter cake which minimizes the potential for differential sticking and the invasion of filtrate and mud solids into permeable formations.

Advantages

- Effective in low concentrations for controlling fluid loss and building viscosity
- Encapsulates shale particles to inhibit swelling and dispersion
- Resists bacterial attack, requiring no biocides or preservatives
- Functions over a wide range of salinity, hardness and pH levels
- Applicable in all water-base fluids, ranging from low-solids, non-dispersed polymer systems to high-density, dispersed systems.

PAC MUD polyanionic cellulose is a high-quality, water-soluble polymer designed to control fluid loss and increase viscosity in water-base muds.

Method of Addition

Pac Mud is effective in low concentrations, with the normal fluid-loss treatment ranging from 0.25 to 1 lb/bbl (0.71 to 2.85 kg/m).

Pac Mud should be added slowly at the hopper or mixing system to prevent clumping or “fish eyes”.

Typical Physical Properties

Physical appearance	White free-flowing powder
Specific gravity	1.5 – 1.6
pH (1% solution)	6.5 – 8.0

Packaging and Storage

Pac Mud is packaged in 50 lb/22.7 kg multi-walled bags.



Lost Circulation & Fluid Loss Control

TROL LV



Product Number
9410045

Applications

Trol LV controls fluid loss in freshwater, seawater, KCl and salt muds. It forms a thin, resilient, impermeable filter cake which minimizes the potential for differential sticking and the invasion of filtrate and mud solids into permeable formations. It is effective in low concentrations, with the normal fluid-loss treatment ranging from 0.75 to 2 lb/bbl (2 to 6 kg/m³). In saltwater systems, higher concentrations are required for encapsulation, with normal concentrations ranging from 1 to 3 lb/bbl (2.85 to 8.6 kg/ m³).

Advantages

- Economical alternative to low viscosity PAC and CMC
- Easily mixed
- Effective in low concentrations for controlling fluid loss without viscosity increases
- Encapsulates shale particles to inhibit swelling and dispersion
- Resists bacterial attack, requiring no biocides or preservatives
- Applicable in most water-based mud systems
- Environmentally acceptable

TROL LV modified starch is a high quality, easily mixed dry product designed to control fluid loss without contributing to an increase in viscosity.

Applications (cont'd)

Trol LV generates less viscosity than regular PAC products. The viscosity generated will depend on the solids concentration, salinity and makeup-water chemistry.

Trol LV is an anionic starch which will encapsulate exposed clay and shale drill cuttings and the borehole walls. This protective polymer "envelope" inhibits the dispersion of shale cuttings and restricts fluid interactions with exposed shale.

Method of Addition

Trol LV can be added at the hopper, as required. It mixes quickly in most mixing systems and provides necessary fluid properties in a short time.

Typical Physical Properties

Physical appearance	White free-flowing powder
Specific gravity	1.5 – 1.6
pH (1% solution)	6.5 – 8.0

Packaging and Storage

Trol LV is packaged in 50 lb/22.7 kg bags and 5 gallon pails. Store in a cool, dry location.



North America 1-800-669-3542
International +1-705-647-8138

PAGE: DF20



www.timeltd.ca

Lost Circulation & Fluid Loss Control

TROL HV



Product Number: 9410007

Applications

Trol HV controls fluid loss and provides viscosity in freshwater, seawater, KCl and salt muds. It forms a thin, resilient, low-permeability filter cake which minimizes the potential for differential sticking and the invasion of filtrate and mud solids into permeable formations. It is effective in low concentrations, with the normal fluid-loss treatment ranging from 0.25 to 1 lb/bbl (0.71 to 2.85 kg/m³).

TIME Trol HV may also be used by itself where bentonite-based drilling fluids are prohibited.

Advantages

- Effective in low concentrations for controlling fluid loss without viscosity increases
- Encapsulates shale particles to inhibit swelling and dispersion
- Functions over a wide range of salinity, hardness and pH levels
- Applicable in all water-based systems
- Environmentally acceptable

TROL HV is a combination of high quality, water-soluble bio polymers designed to control fluid loss and increase viscosity in water-based muds. Trol HV provides immediate viscosity and fluid loss control in both fresh and saline waters.

Method of Addition

Trol HV should be added slowly, as required, at the mixing hopper for best results as required. As it is biodegradable, bacterial control (biocide) should be implemented if the fluid will be re-used for long periods. A higher pH environment does slow bacterial degradation. Maintain a pH of at least 8.5 with 0.2 lb/bbl (0.6 kg/m³) soda ash for best results.

Typical Physical Properties

Physical appearance	White free-flowing powder
Specific gravity	1.5 – 1.6
pH (1% solution)	6.5 – 8.0

Packaging and Storage

Trol HV is supplied in 25 lb/11.4 kg multi-wall bags and 25 lb pails.

Store in a dry, well-ventilated area away from incompatibles or sources of heat or ignition.



Lost Circulation & Fluid Loss Control

Swell Mud



Product Number
9410025

Applications

Swell Mud is a lost circulation material used to seal fractures. It can also be spotted in caving zones to consolidate loose formations. After placing TIME Swell Mud pills, pull up above the problem zone to prevent stuck rod. Hydration occurs in 20 to 30 minutes. Circulate with mud and LCM to fill the voids between the spotted pill.

Advantages

- Swell Mud can be hydrated prior to spotting.
- Due to its swelling capacity and particle size distribution, Swell Mud will accumulate in a variety of fracture sizes.

SWELL MUD is a swelling copolymer utilized in lost circulation that can expand up to 500 times its volume in freshwater.

Method of Addition

Mix Swell Mud in water or drilling fluid; with or without LCM. Add 1 to 3 lb (0.5 to 1.5 kg) per 5 gal (20 L) of water or mud in a pail for smaller pills or 4-5 pails for larger pills of 50 barrel (8000 L). Do not hydrate longer than 5 minutes before spotting. The core tube should be removed before spotting in coring applications. Repeat as necessary to stop lost circulation.

Typical Physical Properties

Physical appearance	White powder
Specific gravity	0.8 – 1.0
Solubility	Swells on contact with water

Packaging and Storage

Swell Mud is supplied in 5 gal/18.9 L pails.

Store in a dry location away from sources of heat or ignition.



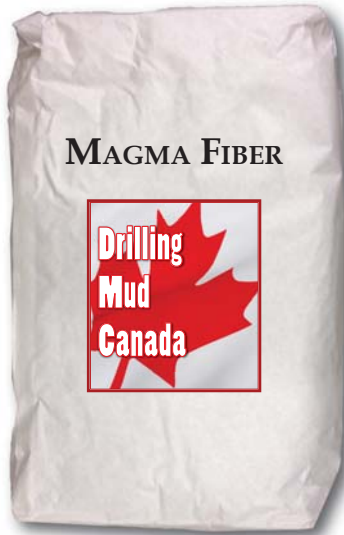
North America 1-800-669-3542
International +1-705-647-8138

PAGE: DF22



www.timeltd.ca

Magma Fiber



Product Number: 9410005

Applications

Magma Fiber can be mixed in low concentrations directly into the active system for seepage losses or in higher concentrations in loss circulation “pills”. It can be mixed with any drilling fluid additives and works well with other lost circulation materials.

Advantages

- Effectively bridges across loss zones
- Can be pumped through mud motors
- Acid-soluble
- Non-toxic

MAGMA FIBER is a specially formulated acid-soluble mineral fiber. The coarse, long, flexible fiber helps to regain circulation losses by bridging and plugging off voids, fractures and highly permeable formations.

Method of Addition

Magma Fiber is most effective when added from the top of the mud tank or pill tank into high agitation. It can also be added through the hopper but is a slower process. It has been used in concentrations of ½ bag per 30 minutes for ongoing seepage, to concentrations of 5.5 – 16 lb/ bbl (15-45 kg/m³) for seepage/partial or total losses.

Typical Physical Properties

Physical appearance	white-gray fiber
Specific gravity	2.6
Solubility	insoluble

Packaging and Storage

Magma Fiber is packaged in 30 lb/14 kg paper sacks.



Lost Circulation & Fluid Loss Control

Bentonite Coated Pellets 3/8"



Applications

Bentonite Coated Pellets 3/8" have the ability to absorb water at 8-12 times their volume. They should be added, as directed, and depending on hole diameter and depth. Pellets should be allowed to hydrate for at least 2-3 hours (depending on water quality).

Advantages

- Clean, dust-free and easy to handle
- Non-toxic and non-polluting
- No mixing required; thus eliminates the need for large and expensive grouting units and reduces labor costs
- Does not disintegrate upon swelling; seals are tough but flexible and do not crack when subjected to movement

Product Number
9410042

BENTONITE COATED PELLETS 3/8" is a clean, virtually odorless and easy to handle bentonite pellet which combines the high quality yield of western bentonite with a biodegradable non-sticking coating. The coating allows the pellets to be poured through standing water without sticking together.

Method of Addition

Hole Diameter	2 inch	3 inch	4 inch	5 inch	6 inch	7 inch	8 inch
Lb pellet/ft of seal	1.75	4	7	11	16	22	28

NOTE: These are dry weights and volumes.

In use, the swelling of the pellets will increase the length of the seal (depending on hole condition).

Typical Physical Properties

Physical appearance	Gray pellets
Specific gravity	2.6

Packaging

Bentonite Coated Pellets 3/8 " are packaged in 50 lb/22.68 kg pails, 36 pails per pallet.



North America 1-800-669-3542
International +1-705-647-8138

PAGE: DF24



www.timeltd.ca

Drilling Fluids - Specialty Products

Sand Drill



Product Number: 9410043

Applications

Sand Drill is used when drilling in unconsolidated sand and silt. Sand Drill consolidates loose formations allowing for efficient installation of casing. It is also effective at increasing core recovery by reducing the opportunity for caving sand and silt and wash out. Sand Drill may be used at 1 – 2 lb/bbl (3-6 kg/m³) depending on hole diameter and severity of caving sand and silt.

Advantages

- Unique polymer blend designed to quickly hydrate and consolidate troublesome geology
- Effective when encountering clay seams by encapsulating drilled cuttings and reducing swelling/sticking of formation clays
- Enhances the removal of drill solids
- Maintains hole stability while drilling to install surface casing

Sand Drill is a specialty blend of synthetic polymers specifically designed for drilling through unconsolidated sand and silt. It also provides cuttings encapsulation and shale stabilization. Sand Drill acts as a viscosifier, friction reducer and fluid loss control additive.

Method of Addition

Sand Drill should be added slowly at the hopper or mixing tank and allowed to hydrate for 10 – 15 minutes.

Typical Physical Properties

Physical appearance	white to off-white powder
Specific gravity	1.4 – 1.6
pH (3% solution)	6.5 – 7.5

Packaging and Storage

Sand Drill is supplied in 5 gal/18.9 L pails.



Drilling Fluids - Specialty Products

Drill Thinner



Product Number: 9410026

Applications

Drill Thinner is primarily used to prevent bit balling, mud rings and to control drilling fluid viscosity. It also breaks down reactive clays that have caused stuck pipe.

Advantages

- Drill Thinner disperses clays and quickly penetrates sticky clays that may cause stuck tools
- Works quickly to alleviate hole problems and reduce costly pulling times or lost pipe.

DRILL THINNER is a phosphate-free, thermally-stable thinner and dispersing agent. It acts quickly to break up mud rings and clay deposits on the bottom-hole assembly (BGA). Drill Thinner is also very effective at controlling drilling fluid viscosity in water-based drilling fluids

Method of Addition

- Bit balling/mud rings: ½ quart (1/2 L) per 300 gal (1,135 L) of fluid up to ½ to 1 ½ gal (1.9 to 5.7 L) per 300 gal (1,135 L) of fluid. May also be added in 1 quart (1 L) increments on connections.
- Thinning: Slowly add Drill Thinner to the mud system as needed to reduce viscosity

Typical Physical Properties

Physical appearance	pale yellow liquid
Specific gravity	1.3
pH as supplied	7.0 – 7.5

Packaging and Storage

Drill Thinner is packaged in 5 gal/18.9 L pails.



North America 1-800-669-3542
International +1-705-647-8138

PAGE: DF26



www.time ltd.ca

Drilling Fluids - Specialty Products

Liquid Gilsonite



Product Number: 9410037

Applications

Liquid Gilsonite is formulated to be used in most water-base systems and is therefore extremely effective in lignosulfonate, potassium and PHPA polymer mud systems. The readily dispersible nature of the product allows high concentrations to be added easily to the mud system.

Advantages

- Improved wellbore stability and shale inhibition and lubricity
- Improved high-temperature filtration control
- Reduced bit balling, even in clays
- Reduced filter-cake buildup in depleted sands
- Excellent environmental acceptability.

LIQUID GILSONITE is an environmentally acceptable liquid gilsonite dispersion which has been formulated for water-based drilling fluids as a shale stabilizer/lubricant. It can also be used when drilling through other unconsolidated formations. LIQUID GILSONITE seals the micro-fractures and stabilizes the formation while reducing the dynamic fluid loss.

Method of Addition

An initial treatment of 2 – 5% by volume (7-17.5 lb/bbl) is recommended to achieve optimum results. It can be added at the hopper or directly to the tanks.

Typical Physical Properties

Physical Appearance	Viscous black liquid
Active content	40%
Specific gravity	1.03-1.3 @ 25/25C PMCC
Temp stability	Stable Storage @ -5°C to +40°C
Pour point	0°C
Flash point	>100°C

Packaging and Storage

Liquid Gilsonite is supplied in 5 gal/18.9 L pails, 55 gal drums, or 275 gal IBC tote tank.



Drilling Fluids - Specialty Products

Xan Gum



Product Number: 9410040

Applications

The primary function of Xan Gum is to increase viscosity for cuttings transport and suspension. Xan Gum will perform effectively in all water-base fluids, from highly weighted to low-solid systems. This includes freshwater, seawater, salt and heavy brine systems.

Shear-thinning fluids containing Xan Gum have low effective viscosities at the high shear rates encountered inside the drill string and at the bit. This low effective viscosity for minimal pressure losses and standpipe pressures allows optimized hydraulics and maximized rates of penetration. Conversely, at the low shear rates experienced in the annulus, Xan Gum enables the drilling fluid to have a high effective viscosity for adequately cleaning the well and suspended cuttings.

Advantages

Xan Gum is a highly effective low shear rate viscosifier for improved hydraulics and power at the bit for maximum penetration rates.

XAN GUM is a biopolymer used for increasing viscosity in water-based systems. Small additions provide viscosity and weight-material suspension for all water-based mud systems. Xan Gum has the unique ability to produce a fluid that is highly shear-thinning (LSRV).

Method of Addition

Xan Gum should be added slowly through the hopper to prevent lumping and minimize water. It should be added at the rate of approximately 2 lb (0.91 kg) every 2 min. The time required for the product to yield its ultimate viscosity depends on salinity, temperature and shear.

The amount of Xan Gum required will depend upon the desired viscosity. Normal concentrations range from 0.25 to 2 lb/bbl (0.71 to 5.7 kg/m³) for most mud systems. Special fluids and difficult hole-cleaning conditions may require higher concentrations up to 4 lb/bbl (11.4 kg/m³).

Typical Physical Properties

Physical appearance	cream to tan powder
Specific gravity	1.5
Bulk density	50 lb/ft ³ (800kg/m ³)

Packaging and Storage

Xan Gum is packaged in 25 lb/11.3 kg bags.

Store in a well-ventilated area away from sources of heat or ignition.



Drilling Fluids - Specialty Products

Tank Pump

Steel or aluminum, the tank pump is designed to be permanently mounted on a drill. The pumping unit is comprised of a 20 litre steel or aluminum tank to which a pump is attached which injects product using a regulator and needle valve. A hydraulic hose is attached to the needle valve which is mounted on the rock drill line on the drill. A solenoid switch may be

attached to the drill to regulate the flow of product. A 3/8" red air hose with quick connect couplings is connected to the drill to provide air for the pump.



Product Number:
420-27S Steel tank
420-51A Aluminum tank

Tank Pump with Haskel Pump

The Haskel pump is used where high psi output is required. The air drive of the pump requires a minimum pressure of 25 psi (1.72 bar) to actuate the air cycling valve spool. However, 40 psi is the recommended minimum for long term reliable operation. Maximum air drive pressure is 125 psi (8.6 bar). Pump output is 8800 psi.



Product Number:
420-51AHP

Frac Ease



Product Number: 420-02

- Used with hydraulic and pneumatic percussive long-hole drills and down-the-hole hammers underground.
- Conditions the hole to help prevent hole sloughing and caving, thus reducing redrills.
- Allows blast-holes to be fully loaded which helps to optimize blasting operations.
- Eliminates grinding of cuttings by immediately removing them from the bits' face and lifting them to the surface.
- Extends bit life through unique lubricating components.
- Can increase rod or tube life 30% – 50% by eliminating down-hole torque.
- Significantly reduces the amount of water required to lift cuttings.
- Reduces maintenance costs normally associated with wear and tear on drill.
- Does not separate.



Drilling Fluids - Specialty Products

Ambex Anchoring Capsules



Product #	Product Name	Size
420-25	AMBEX AAC™ anchoring capsules	25mm/1"x300mm/ 12" ; 42 capsules per bag
420-25B	Cement Fondu® (Calcium Aluminate Cement)	25kg bag
420-25C	Cement Fondu® (Calcium Aluminate Cement)	94 lb. bag

Advantages

- Simple and economical
- Easy to install
- No product mixing on site
- No special tools and equipment required
- High early strengths
- Can be installed in cold weather at -17°C (0°F)
- Stable water/cement ratio
- No toxic emanation or fumes
- Environmentally friendly
- Does not contain calcium chloride
- Can be used underwater

AMBEX AAC™ anchoring capsules are a cementitious non-shrink grout. In loose form the grout is known in the mining industry as "Ciment Fondu®" and is used to grout plugs for exploratory holes. Encapsulated in a water permeable wrapping, Ambex AAC™ anchoring capsules are filled with a dry pre-mixed cement grout. Once the grout capsule is saturated in water it becomes a fast setting thixotropic grout, easily inserted in the anchoring hole. Ambex AAC™ contains a mix of calcium aluminate cement, screened sand and selected additives.

Packaging and Storage

See above chart for packaging. Store in a dry area where there is no humidity or freezing. Shelf life up to 2 years if well protected.

Technical Information

Water/Cement Ratio	0.32 / 0.32
Net Weight: AAC-25	±240 g / ±0.5 lbs
Density (dry)	1.5-1.7 g/cm ³ / 93.6-106.1 lbs/ft ³
Compressive strength (28 days)	48.2 MPa / 6990 psi
Creep Test	Exceeds requirements
Soaking time	1 to 2 min
Working time 20° C / 68° F	10 min
Initial setting time	6 min
Final setting time	26 min
Expansion	0.05%
Freeze-thaw resistance	100%

Tests performed by independent laboratories.



Drilling Fluids - Foam & Detergents

Drill Foam



Product Number: 9410022

Applications

Drill Foam is used as a foaming agent in air-drilling applications and can be used for dust suppression, mist, foam and stiff-foam drilling.

Advantages

- Produces stable, consistent foam in all types of water
- Environmentally acceptable and biodegradable
- Improves hole cleaning and penetration rates
- Biodegrades in 28 days using the OECD-301D test

DRILL FOAM is a water-soluble, biodegradable foaming agent. Drill Foam has the ability to foam in fresh, brackish or salty waters. It will not contaminate streams or groundwater and presents no disposal problems.

Method of Addition

- For dust suppression or bit balling in damp formations: Mix 1/3 to 3/4 pints (0.2 to 0.4L) per 50 gal (189 L) of water
- For mist drilling with moderate amounts of water intrusion: mix 1.5 to 3 pints (0.5 to 1.5 L) per 50 gal (189 L) of water
- For foam drilling with excessive amounts of water intrusion: Mix 6 pints (2.9 L) per 50 gal (189 L) of water
- For slug drilling: 1/3 pint (0.2L) in 2 gal (7.6 L) of water
- Stiff foams: To obtain desired viscosity, mix TIME Drill Liquid or Liquid Mud Plus in injection tank to 32 sec/qt and stir in 3/4 gal (3L) of Drill Foam.

Typical Physical Properties

Physical appearance	Amber Solution
Specific gravity	1.053
pH (1% solution)	6.5 – 7.5

Packaging and Storage

Drill Foam is packaged in 5 gal/18.9 L buckets.

Store in a well-ventilated area away from sources of heat or ignition



Drilling Fluids - Foam & Detergents

Detergent Plus



Product Number: 9410011

Applications

Detergent Plus can be used in almost any water base drilling fluid. It is used primarily in surface and intermediate sections during drilling to minimize bit and BHA balling and mud rings.

Detergent Plus reduces torque and drag. Treatments range from 0.1 to 0.2 lb/bbl (0.29 to 0.57 kg/m³) under normal drilling conditions. In severe gumbo shale areas, 4 to 6 lb/bbl (11.4 to 17.1 kg/m³) of DETERGENT PLUS are recommended to minimize bit and BHA balling. It is effective in all water base systems including freshwater, brackish water, seawater and saturated saltwater fluids.

Advantages

- Minimizes bit and BHA balling
- Improves water-wetting action on all solids and reduces the sticking tendency of reactive shale cuttings
- Functions as an emulsifier, reducing the viscosity of oil-contaminated fluids

DETERGENT PLUS drilling detergent is a liquid blend of specialty surfactants designed to reduce the surface tension of water base mud systems and reduce the sticking tendency of reactive shale and clays.

Method of Addition

Detergent Plus can be added as recommended to the active system or directly in the drill pipe at connections.

Typical Physical Properties

Physical Appearance	Pink Liquid
pH	7.5 to 8.5
Solubility	100%
Specific Gravity	1.0-1.02
Freezing Point	32°F/0°C

Packaging and Storage

Detergent Plus is supplied in 5 gal/18.9 L pails.



Drilling Fluids - Commercial Chemicals

Soda Ash



Product Number: 9410009

Advantages

- Widely available
- Economical
- Increases pH
- Effectively removes calcium in most drilling fluids
- Effective flocculant for spud muds

SODA ASH is used to reduce soluble calcium in water-base drilling muds. It is also used to increase pH and to flocculate spud muds. Soda ash is the common name for sodium carbonate (Na_2CO_3). It is a weak base which is soluble in water and dissociates into sodium (Na) and carbonate (CO_3) ions in solution.

Typical Physical Properties

Physical appearance	white powder
Specific gravity	2.51
pH	11.4

Packaging and Storage

Soda ash is supplied in 50 lb paper sacks.



Drilling Fluids - Accessories

Mud Test Kit - Basic



Our Mud Test Kit includes a standard mud balance, marsh funnel, and cup. It also provides ample room for equipment and extra chemicals that just don't seem to fit in conventional testing equipment kits.

Product Number: 9411000

Mud Balance

The mud balance is the instrument generally used to determine the accurate measurement of mud weight within 1/10 lb/gal or 1/2 lb/cu ft.

Features:

- Break resistant construction
- Plastic carrying case

Product Number: 420-106



Consists of 7 parts:

1. base
2. graduated arm and cup
3. lid
4. knife edge
5. rider
6. built-in spirit level
7. counterweight



Mud Test Equipment

MARSH FUNNEL - PN: 420-28

The Marsh Funnel is used for routine viscosity determinations and flow properties of drilling mud. The Marsh Funnel is made of rugged, break resistant gray plastic that also resists temperature change deformation. Volumetric accuracy is assured. The plastic handle provides insulation to help protect hands during testing. A metal orifice ensures accurate readings.



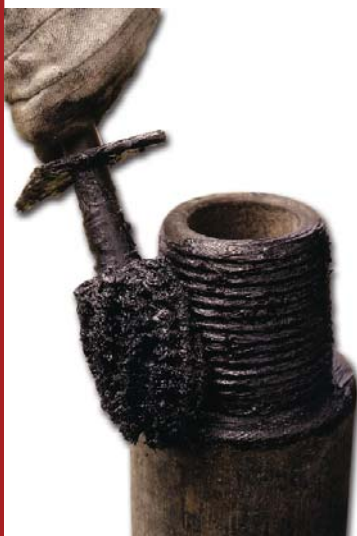
VIS CUP - PN:420-29

The Vis Cup is designed specifically for use with the Marsh Funnel. It is made of high impact plastic.



pH strips PN: 420-124

pH is critical to optimizing your drilling fluids. pH should be checked with pH strips on a regular basis or when your water source changes.



Dope Brush

- Dope brushes come with plastic guards on handle.
- Size 2 (available in other sizes)
- 12 / case

Product Number: 36-05-001



Drilling Fluids

CORE DRILLING CROSS REFERENCE

Description	DRILLING MUD CANADA	MI-SWACO	BARIOD	AMC	CANAMARA	MATEX
pH Control	Soda Ash	Soda Ash	Soda Ash	Soda Ash	Soda Ash	Soda Ash
High yield sodium bentonite	Hi Yield Bentonite	Max-Gel	Quick Gel	n/c	Extra Hi Yeild	n/c
Fine grind high yield sodium bentonite	Gel Xtra	n/c	Quick Gel Gold	Aus-Gel Xtra	n/c	n/c
Premium grade foamer	Drill Foam	Platinum Foam	Barafoam	Super Foam Xtra	n/c	DD Foamer L
Bentonite pellets, 3/8"	Coated Pellets	Kwik Plug Med	Hole Plug	Bentonite Chips	Enviroplug Med	n/c
Bentonite pellets, fine granular	n/c	Kwik Plug Fine	Casing Seal	Granulated Bentonite	Enviroplug #8	n/c
Liquid polymer - 30% active	Drill Liquid	Poly Plus Liquid	EZ Mud	Liqui-Pol	WDS 120 L	DD 955
Liquid polymer - 50% active	Core Warrior Liquid	Poly Plus 2000	EZ Mud D-50	LP 2000	Ultra VIS II	Ultra Vis
Dry polymer - readily dispersible	Dry Mud RD	Poly Plus RD	Poly Bore	CR 650 RD	Poly Pro	n/c
Dry polymer	Core Warrior Dry	Poly Plus	n/c	CR 650	550X	DD 2000
Water soluble cellulose polymer	PAC Mud	Platinum Pac R	Pac R	AMC Pac R	Pro Pac	Mapac
Lubricant	Torque Ease	Rod Ease	EP Mud Lube	Penetrol Xtra	Torqmaster	Torqueless
Water soluble lubricant	Premium Lube	Platinum Lube	EP Mud Lube	n/c	n/c	Bit Cool
Water swellable dry polymer	Swell Mud	PolySwell	Diamond Seal	Aus-Plug	G-Stop	DD Expand
Acid soluble lost circulation material	Magma Fiber	Magma Fiber	N Seal	n/c	Magma Fiber	n/c
Core lubricant	Linseed Soap	Tube Lube	n/c	Linseed Soap	Linseed Soap	n/c
Rod grease	Rod Grease Plus	Rod Coat B 700	n/c	Xtra Tacky Grease	Big Bear	n/c
Rod grease - enviro. friendly	ECO Rod Grease	Platinum Rod Coat	n/c	Enviro Grease	n/a	n/c
Thread grease	ZN-50	Thread Bond Z	n/a	Thread Grease DRTG	Kopr Kote	n/c
Thread grease - enviro. friendly	4010NM	n/c	n/c	n/c	n/c	n/c
Enviromentally safe hammer lubricant	n/c	Hammer ES	n/c	Enviro Lube	n/c	RDO 302 ES
Detergent	Detergent Plus	Platinum DD	Con Detergent	Aus-Det	Drilling Detergent L	n/c
Liquid thinning polymer	Drill Thinner	Ring Free	AquaClear PFD	Liqui-Sperse	Thinz-It	DD 605 L
Stabilizing sand formations	Sand Drill	n/c	n/c	n/c	n/c	Sand Mud
Gel strength and suspension	Xan Gum	Super Vis	No Sag	Xan-Bore	Pro Yeild	n/c
Fluid loss control additive	TIME Trol	n/c	Quik Trol	Aus-Trol	n/c	n/c

rev 4292016en



North America 1-800-669-3542
International +1-705-647-8138

PAGE: DF36



www.timeltd.ca