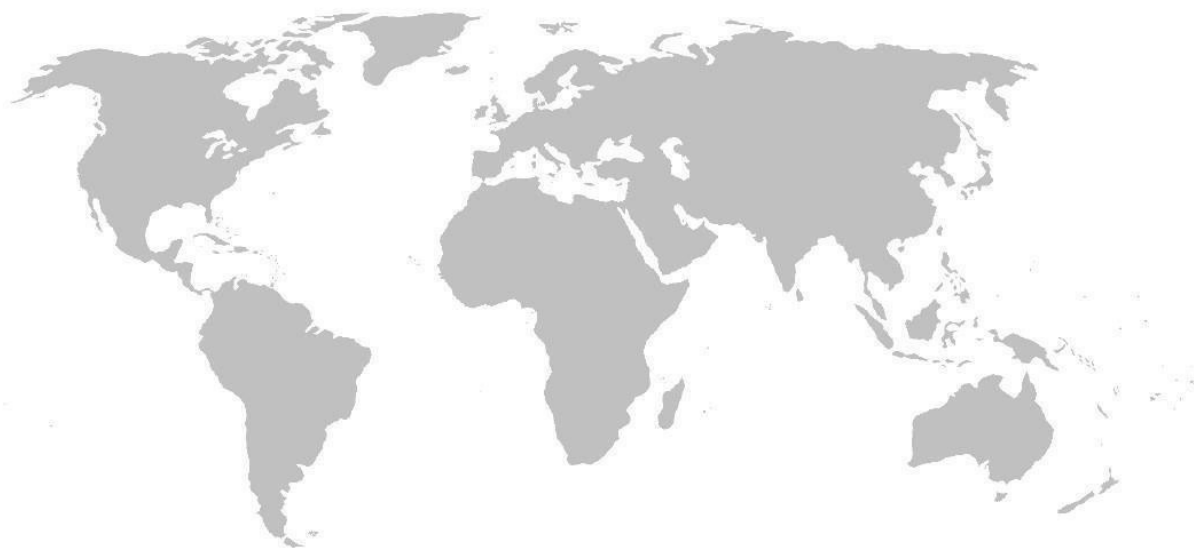


PAN ASIAN CHEMICALS INC.

July 2015



Chemical and Mineral Global Supply Chain Services

Distributing – Blending – Application Solutions
For

Upstream and Downstream - Hydrocarbon Processing
Water Treatment

Head office:

5444 Westheimer, Suite 1570

Houston, TX 77056

+1 713-621-1888

info@panasianchem.com

TABLE OF CONTENTS

Mission Statement	1
Company Overview	2
Certifications and Registrations	3
Priority Product List	4-8
Biogums	9-10
Product Sheets	
PanaX 500™ 50 and 25 - Glutaraldehyde	11
PanAsian Ulexite	12
PanAsian Welan Gum - CDU 12 and CDU 16	13
General Product list	
Acidizers	14
Anti-Freeze Agents/Gas Hydrate Inhibitors	14
Biocides	14
Breakers	14
Cement Drilling Additives	14
Chelating Agents	14
Clay/ Shale Stabilizers	14
Corrosion Inhibitors	

15	Cross-Linkers/ Gelling Agents
15	Deflocculants/ Dispersants
15	Defoamers
15	Drilling fluids/ Mud Components:
	Fluid Loss Control Agents
15	Ion Exchange Agents
15	Rheological Modifiers
16	Weighting Agents/ Desifiers
16	Emulsifiers
16	Epoxide Resin
16	Fuel Additives
16	Hydrogen Sulfide Scavengers
16	Iron Sulfide Dissolvers
16	Minerals
16	Mutant Solvents
16	Oilfield Brine Additives
16	Organic Synthesis Intermediates
16-17	Oxygen Scavengers
17	pH Modifiers:
	Acidic
17	

Basic	17
Pigment Dyes	17
Rubber Accelerators	17
Scale Inhibitors	17
Surfactants	18
Other Specialty Chemicals	18
News Announcements	19-22



Mission Statement

Pan Asian Chemicals Inc. wants to always be the preferred choice for customers and suppliers in specialty chemicals and minerals distribution. With every transaction, we strive to fulfill this mission. We take pride in our service and the quality of our products, and we maintain loyal relationships with suppliers and customers.

Chemical and Mineral Global Supply Chain Services

Pan Asian Chemicals Inc. provides expert solutions for all your chemical and mineral needs, and distribution, formulations, blending, and application solutions for upstream and downstream hydrocarbon processing and water treatment. Our objective is to expand global business relationships and services with, and for, our current and new suppliers, customers, and partners. We offer in-depth product expertise and on-time logistic services, warehousing, and competitive, effective solutions for procurement.

**For sourcing of any products not found in our brochure, please contact us at
info@panasianchem.com +1 713 621 1888.**



COMPANY OVERVIEW

Pan Asian Chemicals Inc. is a privately held company that emerged in New York from the consolidation of several companies. Pan Asian Chemicals is headquartered in Houston, Texas - the "Oil Capital of the World," with representative offices in New York, Shanghai, Algeria, and Mexico.

Specializing in the oil and gas and water treatment sectors, Pan Asian Chemicals provides complete turnkey supply chain services - supplying chemicals and minerals (Borons) globally from China, India, Europe, United States, former Soviet Union and others.

With low overhead, Pan Asian Chemicals can compete effectively with speed and agility to provide timely deliveries and superior QC and QA. The Company engages in custom tolling/blending, provides on-call deliveries from various warehouses, and provides full scale distribution services. PanAsian has implemented several staging and rotating inventory facilities in strategic locations domestically and globally, to ensure on-time dependable deliveries for contractual commitments. Pan Asian Chemicals' products include upstream and downstream chemicals, minerals, biocides, and oilfield cement drilling additives.

Another value added service that Pan Asian Chemicals provides customers is pre-shipment inspections for importations from China, India, and other emerging/developing countries. Pan Asian Chemicals' status as a Tier II C-TPAT partner with the Customs and Border Protection certifies that its shipments receive priority when clearing customs at U.S. ports.

The company has obtained three prime EPA registrations: PanAsian PanaX 500™ 50 and PanaX 500™ 25 for pure Glutaraldehyde, and PanAsian PanaX 100™ THPS 75.

In close cooperation with its customers, several universities, chemical institutions, laboratories, and manufacturers, Pan Asian Chemicals provides technical expertise and support, research and development, and new alternative supply options, blends, and products. The company's steady growth allows for optimal ocean and trucking contract rates, providing its Logistics Department with leverage and important competitive advantages.

Pan Asian Chemicals operates a warehouse and terminal in Shanghai, offering staging, labelling, custom markings, and custom packaging (pails, drums, totes, ISO tanks) for exports from China.

Main office:
Pan Asian Chemicals Inc.
5444 Westheimer, Suite
1570
Houston, TX 77056
+1 713-621-1888

CERTIFICATIONS AND REGISTRATIONS



Customs-Trade Partnership Against Terrorism (C-TPAT) - Tier 2 Certification

As a C-TPAT certified member, PanAsian is considered low risk by the Customs and Border Patrol. PanAsian received C-TPAT Tier 2 certification by demonstrating a high-level implementation of its security processes and risk assessment procedures.



EPA Prime Registrations: 88951-1, 88951-2, 88951-3 Registered Under FIFRA

PanAsian has prime EPA registrations for PanaX 500™ 25% and PanaX 500™ 50% pure Glutaraldehyde with various Methanol specifications and PanaX 100™ THPS 75%. The EPA has issued a Letter of Waiver to PanAsian for non-registered THPS and Glutaraldehyde for importation into the U.S.



U.S. Drug Enforcement Administration (DEA) Registration

PanAsian is Registered and authorized by the DEA to import controlled substances / regulated chemicals into the U.S. and is in full compliance with the Texas Department of Health, Food, and Licensing.



Centre for Environment, Fisheries & Aquaculture Science (CEFAS)

Registration

PanAsian Glutaraldehyde 50% and 25% and its prime EPA registered PanaX 500™ 50 and PanaX 500™ 25 pure Glutaraldehyde with various maximum Methanol specifications, have been certified on the Cefas list of notified chemicals for use by North Sea offshore and other hydrocarbon applications. PanAsian PanaX 100™ THPS 75 registration is pending.



Registration, Evaluation, Authorization and Restriction of Chemicals

(REACH)

REACH is pending approval for imports to Europe.



The European Chemicals Agency (ECHA) - Biocidal Products Regulation

(BPR) for PanAsian's PanaX 500™ 25%, and 50%: pending for inclusion on the BPR active substance list.

MEMBERSHIPS



PRIORITY PRODUCT LIST

PRODUCT	CAS. NO	APPLICATION	PURPOSE
PANAX 500™ 50 (Prime EPA Registered Glutaraldehyde 50%)	111-30-8	Pumped as a liquid additive with fracturing fluids to reduce, or eliminate, formation of bacterial populations (specifically Acid Producing Bacteria and Sulfate Reducing Bacteria) that create corrosive by-products and fracture conductivity	Biocide/Pesticide For non-biocide/pesticide application only
PANAX 500™ 25 (Prime EPA Registered Glutaraldehyde 25%)	111-30-8	Pumped as a liquid additive with fracturing fluids to reduce, or eliminate, formation of bacterial populations (specifically Acid Producing Bacteria and Sulfate Reducing Bacteria) that create corrosive by-products and fracture conductivity	Biocide For non-biocide/pesticide application
PANAX 100™ 75 (Prime EPA Registered THPS 75%)	55566-30-8	Eliminates bacterial populations (specifically Acid Producing Bacteria and Sulfate Reducing Bacteria) and serves as a fast-acting, environmentally “green” biocide. In addition, THPS is also an Iron Sulfide dissolver	Biocide For non-biocide/pesticide application
ULEXITE	1319-33-1	Delayed crosslinking mechanism that decreases the friction pressure while pumping the fracturing fluids	Cross-Linker/ Boron
AMMONIUM BISULFITE	10192-30-0	Oxygen gas and Chlorine Scavenger	Oxygen Scavenger
BARIUM SULFATE	7727-43-7	Weighting agent/densifier for drilling fluids in oil and gas exploration to suppress high formation pressures, and	Weighting Agent/ Densifier
GILSONITE	12002-43-6	Fluid-loss control agent for use in oil- based drilling	Fluid-Loss Control Agent
PanAsian CDU 12 (Welan Gum)	96949-22-3	Drilling fluids/mud component for rheology modification using shear thinning effect for formation protection, hole cleaning,	Rheological Modifier

PRIORITY PRODUCT LIST

PanAsian CDU 16 (Welan Gum)	96949-22-3	Drilling fluids/mud component for rheology modification using shear thinning effect for formation protection, hole cleaning, and solids suspension. Is more efficient and thermally stable than CDU 12 as it can withstand higher downhole temperatures.	Rheological Modifier
PanAsian TD and PLUS D (XANTHAN GUM)	11138-66-2	Drilling fluids/mud component for rheology modification, formation protection, hole cleaning, and solids	Rheological Modifier
BORIC ACID	1333-73-9	Used as a cross-linker to create a viscous gel. Reacts with polymer chains to bind the molecules, thus increasing and controlling the viscosity, even when temperatures increase.	Cross- Linker/ Boron
BORAX DECAHYDRATE (SODIUM TETRABORATE DECAHYDRATE)	1303-96-4	Used as a cross-linker to create a viscous gel. Reacts with polymer chains to bind the molecules, thus increasing and controlling the viscosity, even when temperatures increase.	Cross- Linker/ Boron
2- MERCAPTOETHAN OL (2-ME)	60-24-2	Initial product for organic chemical synthesis, and as a corrosion inhibitor. Can also be used in: PVC stabilization, crop	Corrosion Inhibitor/ Organic Synthesis
BENZALKONIUM CHLORIDE (BAC80)	8001-54-5 63449-41-2 139-07-1	Can be used as a preservative biocide, and as a surfactant.	Biocide / Surfact
DBNPA	10222-01-2	Non-oxidizing biocide used as a preservative for: coatings, slurries, and to control microbial fouling (specifically Acid Producing Bacteria and Sulfate Reducing Bacteria) of the fluids.	Biocide
BARIUM CHLORIDE	10326-27-9	Used to purify caustic chlorine plants and waste water treatments of brine solutions.	Water Treatment

PRIORITY PRODUCT LIST

DOT (DISODIUM OCTABORATE TETRAHYDRATE)	12280-03-04	Delayed viscosity, PH, flowrate, thermal stability, modifier and enhancer, and filer clogging reducer, for guar gum and gelling	
CHOLINE CHLORIDE	67-48-1	Prevents clays from swelling or shifting.	Clay/Shale Stabilizer
NAPHTHENIC ACID	1338-24-5	Can be used as a corrosion inhibitor, fuel additive, and to produce metallic	Corrosion Inhibitor
FORMIC ACID	64-18-6	Dissolves and removes calcium, rust, scale, and iron oxide deposits. In addition, can be used as a corrosion inhibitor	Scale Inhibitor/ Corrosion
DL MALIC ACID	617-48-1	When combined with Tartaric acid, can be used to descale and pick in metal treatment. Can also be used as an	Scale Inhibitor/ Acidizer
4-HYDROXY TEMPO	2226-96-2	Can prevent Alkenes from self-polymerization, control and adjust the degree of polymerization, and serves as	Organic Synthesis Intermediate
AMMONIUM PERSULFATE	7727-54-0	Allows for a delayed breakdown of gels.	Breaker
CASTOR OIL	80001-79-4	Used in: adhesives, dyes, and hydraulic	Lubricant
CINNAMALDEHYDE	104-55-2	Remediates biofouling of fluids by inhibiting Acid Producing and Sulfate Reducing Bacterial populations. Also used as a	Biocide/ Corrosion Inhibitor
CYCLOHEXANONE	108-94-1	Mutual solvent that can be used in the following processes: emulsifying agents, degreasing agents, an activator in oxidation reactions, other solvents, and as a thinner in lacquers	Mutual Solvent

PRIORITY PRODUCT LIST

DTPMPA	22042-96-2 or 68155-78-2	Main uses are as a scale inhibitor of barium sulfate, and as a chelating agent. Other uses include as a stabilizer for: peroxide bleaching and detergent auxiliaries, industrial and municipal cleaning water	Scale Inhibitor/ Chelating Agent
FERRIC SULFATE	10028-22-5	Used as: coagulants/ flocculants for water clarifications, minimize hydrogen sulfide gas release, phosphorous removal, and as a sludge thickening, conditioning, and dewatering	Water Treatment/ Weighting Agent / Densifier
HEXANOL	111-27-3	Mutual solvent used in the petroleum distillation process.	Mutual Solvent
ISOTHIAZOLINONE	26172-55-4 / 2682-20-4	Remediates biofouling of fluids by inhibiting Acid Producing and Sulfate	Biocide
MONOETHANOLAMINE	141-43-5	Organic synthesis intermediate used in the production of: anionic and non- ionic surfactants, corrosion	Organic Synthesis Intermediate
N-OCTY-2-PYRROLIDONE	2687-94-7	Pigment dispersion aid and conditioning	Mutual Solvent
POLY L-ASPARTIC ACID SODIUM SALT	181828-06-08 or 35608-40-6	Biodegradable corrosion and scale inhibitor for metal equipment, industrial circulating water systems, boiler waters, reverse osmosis, oilfield water, and desalination plants. Can be used as an alternative of phosphor-containing water treatment	Corrosion Inhibitor/ Scale Inhibitor
POTASSIUM CARBONATE	584-08-7	Adjusts the pH of drilling fluids to maintain the effectiveness of other drilling fluid components and	pH Modifier/ Ion Exchange Agent
SODIUM CARBONATE	497-19-8	Adjusts the pH of drilling fluids to maintain the effectiveness of other drilling fluid components and	pH Modifier/ Scale
SODIUM HYPOPHOSPHITE MONOHYDRATE	10039-56-2	Dissolves and removes calcium, rust, scale, and iron oxide deposits as a scale	Scale Inhibitor

PRIORITY PRODUCT LIST

SODIUM PERBORATE TETRAHYDRATE	10486-00-07	Viscosity reducing agent that enhances fluid recovery and reduces damages that are created by long chain	Deflocculant/ Dispersant
2-ETHYLHEXYL ACRYLATE	n/a	An emulsified copolymer used for clayless formulations necessary for	Polymer
2-HYDROXY ETHYL	n/a	Used as a polymeric composition for fluid-loss control in drilling fluids/ muds, and cement drilling	Vinyl Monomer
2-HYDROXY PROPYL	n/a	Used as a polymeric composition for fluid-loss control in drilling fluids/ muds, and cement drilling	Vinyl Monomer
2-HYDROXY ET HYL	n/a	Used as a polymeric composition for fluid-loss control in drilling fluids/ muds, and cement drilling	Vinyl Monomer
2-HYDROXYPR OPYL	n/a	Used as a polymeric composition for fluid-loss control in drilling fluids/ muds, and cement drilling	Vinyl Monomer
ETHANOLA MINE PRODUC TS	n/a	Used in a process that removes hydrogen sulfide and carbon dioxide from a gas stream, known as "sweetening." Removes acidic gas that would cause corrosion problems in gas	Acid Gas Scavenger

Detailed product description, SDS, and TDS available upon request.

BIOGUMS

Pan Asian Chemicals Inc. offers high molecular weight anionic polysaccharide Biogums that can serve as rheological modifiers in the oil and gas industry.

- **Xanthan Gum** (Dispersible, Non-Dispersible, and Custom Made)
 - Has larger molecular weight than Welan gum.
- **Welan Gum** (CDU 12 and CDU 16)
 - Welan gum has higher thermal stability than Xanthan gum.

Biogums can modify viscosity by the shear thinning principle:

- At low shear rates, the fluid will have a high viscosity.
 - The long chained polysaccharide molecules form a web like structure, thus thickening the fluid.
- At high shear rates, the fluid will have a low viscosity.
 - The applied force causes the polysaccharide molecules to line together in straight lines parallel to direction of flow.

Rheological modifiers for:

- Drilling
- Drill-In
- Completions
- Coiled Tubing
- Fracturing Fluids/Drilling Muds:
 - The low shear rate viscosity (LSRV) allows for high viscosity fluid at low shear rates, suspending the particles when drilling ceases, and keeping the cuttings out of the drilled holes.
 - Picks up trimmings
 - Suspends cuttings
 - Controls pressure
 - Stabilizes exposed rock
 - Provides buoyancy
 - Coolant
 - Lubricant
 - Flow reduction for pipelines



With their unique and inherent properties, both Biogums can be used in the following applications:

- Deep Sea Drilling as a Mud Spacer:
 - Can be used as an additive.
 - Removes all the drilling fluid/mud.
 - Zonal isolation can be achieved due to Biogum's properties

- Friction Reducers
 - Biogums can reduce the fluid's viscosity, which reduces the amount of friction applied by the fluid.
 - Reduces amount of energy required to pump fluids downhole.
- Foundry Coatings
- Pigment Suspensions
- Cement Viscosifiers
- Tire Sealants
- Paint Thinners
- Food Industry

PanAsian Xanthan Gum Specifications:

- High purity Xanthan gum.
- Thermal stability: up to 250° F
- Specific gravity: 1.0-1.05 g/cm³
- Appearance: off yellow to tan color-dry powder.
- Particle size: 40 mesh
- pH: 5.5-8.0
- Compatible with glycol fluids.

PanAsian CDU 12 Specifications:

- Welan gum
- Thermal stability: up to 270° F
- Appearance: off yellow to tan color-dry powder.
- Particle size: 60 mesh
- pH: 7.5-9.5
- Oxygen scavengers increase the efficacy



PanAsian CDU 16 Acacia Gums

- Higher quality Welan gum than CDU 12
- Thermal stability up to 290°F₃
- Specific gravity: 1.45 g/cm
- Appearance: Cream to tan colored-dry powder.
- Particle size: 80 mesh
- pH: 6.3-7.0
- Compatible with glycol fluids.
- Oxygen scavengers increase the efficacy.

PRODUCT SHEET

PanaX500™ 50% and 25% Glutaraldehyde - CAS Number 111-30-8

PanAsian's Prime EPA-registered PanaX 500™ 50% and 25% glutaraldehyde is a biocide that controls and eliminates bacterial populations; specifically Acid Producing (APB) and Sulfate Reducing Bacteria (SRB), the main oilfield detriments. It has a relatively short half-life and decreases as temperatures increase, which allows for glutaraldehyde to be environmentally "green."

APPLICATIONS

PanaX 500™ is used in most oilfield applications; general preservative, reverse osmosis membranes, concrete drilling additives, waterfloods, fracture, drilling, completion, packer, and workover fluids, oil and gas production transmission pipelines and systems, gas storage wells and systems, and pipeline pigging and scraping.

Specifications	50% 0.3 - 5%	25% 0.3 - 5%
Appearance:	Colorless to light yellowish liquid	
pH:	3.0 - 5.0	
Formaldehyde	None detected	

ADVANTAGES:

- Controls anaerobic and aerobic bacteria; specifically APB and SRB.
- Excellent at penetrating and eliminating biofilms (sessile bacteria).
- Prevents biofouling (souring) of drilling fluids, mud, oil, gases, and the entire system.
- Inhibits Microbial Influenced Corrosion (MIC) by eliminating APB and SRB, which later produce the corrosive hydrogen sulfide gas as a byproduct.
- Biodegradable as defined by a number of different and widely accepted biodegradation protocol.
- Efficacious over a broad temperature range.
- Does not react with Hydrogen Sulfide gas, or other organic acids inherent in oilfields, thus its efficacy is not diminished.
- Stable and effective at pH levels ≤ 10.

STORAGE

Store in a cool, dry, and well-ventilated area. Keep away from ignition sources; heat and flames. Store in a tightly closed container. Incompatible with strong oxidizing agents and foods.

PACKING

Pails, Drums, IBC Totes, ISO tanks.

PanAsian Ulexite, CAS Number 1319-33-1

Ulexite is a uniquely sized, soluble borate crosslinking additive, which is suspended in a hydrocarbon based solution. It provides a delayed crosslinking mechanism that decreases the friction pressure when pumping the drilling fluids downhole, and the pH sensitivity allows for crosslinking reversal via buffers.

APPLICATIONS

PRODUCT SHEET

Ulexite is ideally suited for oilfield applications; drilling fluids/mud, well stimulation, and fracking.

Specifications: Available Mesh: 200 and 325			
Component	Content (%)	Component	Content (%)
B ₂	36-38	Al ₂	≤ 0.25
CaO	< 19	MnO	< 2.5
SiO	≤ 4	SrO	≤ 1
SO ₄	≤ 0.25	Na ₂	≤ 3.5
As	≤ 0.004	Moisture	< 1
Fe	≤ 0.04	Density	1 (ton/m

ADVANTAGES:

- Winter soluble due to low pour point.
- Provides delayed crosslinking effects; friction reducer and crosslinking is reversible due to its pH.
- Thermally stable at temperatures ≥ 175° F.
- Excellent proppant carrying capability.
- Fluid loss control allows for a more efficient fracturing fluid/mud.
- The alkalinity and buffering properties of boron compounds are useful in preventing corrosion of ferrous metals.
- Preferred cross-linker for guar gels and other slurries.

STORAGE

Storage Temperature: Room Temperature (72° F). Storage Pressure: Atmospheric. Special Sensitivity: Moisture (Caking). Although Ulexite does not require any special precautions; it is sensitive to moisture and will cake. Therefore, the bags should be kept tightly sealed and stored indoors in a dry environment.

SAFETY

Ulexite is a white, odorless, powdered substance that isn't flammable, combustible, or explosive, and it presents no unusual hazard if involved in a fire. Presents little or no hazard to humans, and has low acute oral and dermal toxicities. Care should be taken to minimize the amount released to the environment to avoid ecological effects.

PACKING

100kgs super sacks on pallets.

RELATED PRODUCTS

Boric Acid, Zirconium Oxychloride, Sodium Tetraborate, Sodium Decahydrate.

PanAsian Welan Gum CDU 12 and CDU 16 - CAS Numbers:

96949-22-5 / 125009-87-0

Specialty fermented anionic polysaccharides used as a component in drilling fluids/mud for rheology modification using shear thinning effect for formation protection, hole cleaning, and solids suspension at elevated temperatures with excellent stability.

APPLICATIONS

PRODUCT SHEET

CDU 12 and CDU 16 can be used for injection of drilling fluids/mud in order to maintain viscosity of water-based drilling fluids, control its rheological properties, and at tertiary oil recovery wells to improve oil recovery rate. CDU 12 and 16 can also be used in: deep sea drilling as mud spacers, friction reducers, work over and completion fluids, foundry coatings, pigment suspensions, and cement drilling additives.

Specifications		
	CDU 12	CDU 16
Thermal Stability	> 270°F	>290°F
Particle Size	60	80
pH	7.5-9.5	6.3-7.0
Appearance	Off-yellow to tan color-dry	Cream to tan colored-dry

ADVANTAGES:

- Thickens, suspends, and stabilizes water-based systems, while imparting rheological control.
- Suited for use when downhole/reservoir temperatures exceed 270°F.
- Remains stable in the presence of calcium ions, under basic pH conditions, and compatible in solutions containing high levels of glycols.
- Not absorptive to mineral substrates, thus has minimal damage on producing formation.
- Exceptional ultra-low shear rate viscosity for non-Newtonian fluids.
- Oxygen scavengers increase the overall efficacy of both.

STORAGE

Handle in accordance with good industrial hygiene and safety practices, which include: avoiding unnecessary exposure and removal of material from eyes, skin, and clothing, keeping away from heat, sparks and flame, and avoiding creating dust clouds in handling transfer and clean-up.

SAFETY

Non-hazardous, combustible dust. Ensure appropriate electrical classification and avoidance of ignition sources in dusty environments. Handle in a manner consistent with good industrial hygiene practices - avoid creating or inhaling aerosols of this, or any other material.

PACKING

20kgs bags on pallets; 20MT / 40'FCL

GENERAL PRODUCT LIST

Acidizers

Acetic Acid Ammonium
Bifluoride D,L Malic Acid
Formic Acid Glycolic
Acid Hydrochloric
Acid
Methanesulfonic Acid
Nitriloacetic Acid Sodium
Erythorbate Sulfuric Acid

Anti-Freeze Agents/Gas Hydrate Inhibitors

Diethylene Glycol Ethylene
Glycol Isopropyl Glycol
Acetate Methanol
Monoethylene Glycol (MEG)
Polyethylene Glycol
Polypropylene Glycol Propylene
Glycol
Succinic Anhydride
Triethylene Glycol (TEG)

Biocides

Ammonium Dimolybdate
BIS (4-hydroxyphenyl) Sulfide
Calcium Hypochlorite
Cinnamaldehyde
CMIT/MIT (5-Chloro-2-Methyl-4-Isothiazolin-3-One)
Copper Pyrrhione
Dazomet
DBNPA (2,2-Dibromo-3-Nitrilopropionamide)
Dichloroisocyanuric Acid (Euchlorine)
Dodecyl Dimethyl Benzy Ammonium Chloride
(Benzalkonium Chloride)
Ethylparaben
Glutaraldehyde (PanaX 500 25% and 50% Prime EPA
Registered)
Isothiazolinone
N-Dimethyl-2-Hydroxypropyl Ammonium Chloride
Polymer
Potassium Chlorate
Propylparaben
Quaternary Ammonium Chloride
Sodium Dichloroisocyanurate Sodium
Nitrate

Sodium Nitrite
Sodium
Pyrrhione
THPC (Tetrakis Hydroxymethyl
Phosphonium Chloride)
THPS (Tetrakis Hydroxymethyl
Phosphonium Sulfate) -PanaX 100 75%
Prime EPA Registered Trichloroisocyanuric
Acid

Breakers

Ammonium Persulfate
Dimethyl Diallyl Ammonium Chloride
Dipropylene Glycol Monoethyl Ether (DPE)
Dipropylene Glycol Monomethyl Ether
(DPM) Magnesium Peroxide
Potassium Persulfate
Propylene Glycol Monoethyl Ether (PE)
Propylene Glycol Monomethyl Ether (PM)
Sodium Bromate
Sodium Persulfate

Cement Drilling Additives

Calcium
Formate
Cenospheres
EF601
Magnesium Oxide
Sodium Metasilicate Anhydrous
Sodium Polynaphthalene
Sulfonate Sodium Silicate
Sodium Silicate Solid

Chelating Agents

Diethylene Triamine Penta Methylene Phosphonic
Acid (DTPMPA)
Ethylenediaminetetraacetic Acid (EDTA)
Ethylenediaminetetraacetic Acid 2-Na (EDTA 2-
NA) Ethylenediaminetetraacetic Acid 4-Na (EDTA
4-Na) Gluconic Acid

Clay/Shale Stabilizers

Choline Chloride
Glycerol
Maleic Anhydride
Tetramethylammonium
Chloride

GENERAL PRODUCT LIST

Corrosion Inhibitors

1. Hydroxyethylidene-1,1-Diphosphonic Acid (HEDP) 2-Hydroxy Phosphonoacetic Acid (HPAA)
 2. Mercaptoethanol (2-ME)
 2-Phosphonobutane-1,2,4-Tricarboxylic Acid (PBTCA)
 Acetaldehyde
 Acetophenone
 Amino Trimethylene Phosphonic Acid (ATMP)
 Cinnamaldehyde
 Copolymer of Phosphono and Carboxylic Acid (PCA) Copper Sulfate
 Diethylene Triamine Penta Methylene Phosphonic Acid (DTPMPA)
 Disodium Salt of 1-Hydroxyethylidene-1,1-Diphosphonic Acid (HEDP.2-Na)
 Ethylene Diamine Tetra Methylene Phosphonic Acid Sodium (EDTMPS)
 Ethylene Diamine Tetra Methylene Phosphonic Acid Solid (EDTMPS)
 Formic Acid
 Hexamethylenetetramine
 Naphthenic Acid
 Polyamino Polyether Methylene Phosphonate (PAPEMP)
 Polyepoxysuccinic Acid (PESA)
 Polyhydric Alcohol Phosphate Ester (PAPE)
 Potassium Salt of 1-Hydroxyethylidene-1, 1-Diphosphonic Acid (HEDP.Kx)
 Propargyl Alcohol
 Sodium of Polyaspartic Acid (PASP)
 Thiodiglycol
 Thioglycolic Acid
 Zinc Sulfate Monohydrate

Cross-Linkers/Gelling Agents

1,5-Hexadiene
 Boric Acid (Oxide)
 Chromium (III) Oxide
 Diethylene Glycol Divinyl
 Ether Diethylene Glycol Vinyl
 Ether
 Disodium OctaborateTetrahydrate
 Glutaric Acid
 Potassium Metaborate
 Sodium Tetraborate
 Tetramethyl Urea
 Triethanolamine Zirconate

Zirconium Chloride Oxide

Zirconium Complex

Deflocculants/Dispersants

Acrylic Acid-2-Acrylamido-2-Methylpropanesulfonic Acid (AA/AMPS)
 Acrylic Acid-2-Hydroxypropyl Acrylate Copolymer (T- 225)
 Acrylic-Acrylate-Sulfosalt Copolymer (PAC-613)
 Amorphous Silica
 Calcium
 Lignosulfonate
 Distillates
 Maleic and Acylic Acid Copolymer (MA/AA)
 PAC Carboxylate-Sulfonate-Nonion Tri-Polymer Polyacrylic Acid (PAA)
 Sodium Perborate Tetrahydrate
 Sodium Acid Pyrophosphate
 Sodium p-Styrene Sulfonate

Defoamers

Aluminum Stearate
 Barium Stearate
 Calcium Stearate
 Sorbitan Monolaurate
 Zinc Stearate

Drilling Fluids/Mud Components:

Fluid Loss Control Agents

Allyl Trimethyl Ammonium Chloride
 Copolymer of Acrylamide and Sodium Acrylate Cyclohexyl Vinyl Ether
 Ethyl Vinyl Ether
 Gilsonite
 Guar Gum
 Manganese Oxide
 Methyl Vinyl Ether
 Phosphoric Acid
 Polyanionic Cellulose (PAC)
 Polycarboxylic Acid

Ion Exchange Agents

Potassium Acetate Potassium Carbonate Potassium Chloride Potassium Hydroxide Potassium Perchlorate

GENERAL PRODUCT LIST

Rheological Modifiers Anionic

Polyacrylamide (A767) Bentonite
Copolymer of Acrylamide and Sodium Acrylate
Ferric Sulfate
Guar Gum
Hydroxyethyl Cellulose (HEC) Manganese Oxide
Poly Dimethyl Diallyl Ammonium Chloride (polyDADMAC)
Polyacrylamide Polysaccharide
Blend Sodium Salicylate
Welan Gum (CDU 12 and 16) Xanthan Gum

Weighting Agents/Densifiers

Barite
Calcium Carbonate n-
Butyl Stearate

Emulsifiers

Glycerol Diacetate Glycerol
Monostearate Glycerol
Triacetate Sorbitan
Monostearate

Epoxide Resins

UVR6110 UVR6128

Fuel Additives

2-Ethylhexyl Nitrate
Dimethyl Carbonate
Ethanol
Fatty Acid Esters Ferrocene

Hydrogen Sulfide Scavengers

Acrolein
Hexamethylenetetramine Zinc
Carbonate
Zinc Oxide

Iron Sulfide Dissolvers

Acrolein
THPS

Minerals

Silicon Dioxide
Talc

Mutual Solvents

Cyclohexane
Cyclohexanon
e d-Limonene
Ethanol
Ethylbenzene
Ethylene Glycol Monobutyl Ether (2-Butoxyethanol)
Hexanol
Hydrochloric
Acid Isopropyl
A l c o h o l
Methanol
Methyl Ethyl Ketone
Naphthalene
n-
butanol
n-
Hexane
Propylene Carbonate
Propylene Glycol Monomethyl Ether
Acetate Tert-Amyl Alcohol (2-Methyl-2-
butanol) Toluene

Oilfield Brine Additives

Boric Acid
Calcium
Bromide
Calcium
Chloride
Sodium
Bromide Zinc
Bromide
Ammonium Chloride

Organic Synthesis

Intermediates

1,4-Butanediol Vinyl
Ether 2,2-
Dichlorodiethyl Ether
2,3-Dichloropyridine
4,4-
Dihydroxybenzophenone
4-Hydroxy TEMPO
5-Methylfuran-2-Propionaldehyde
6-Nitro-1-Diazo-2-Naphtol-4-Sulfonic

GENERAL PRODUCT LIST

GENERAL PRODUCT LIST

Aminoguanidine Bicarbonate
Aminoguanidine
Hydrochloride
Benzaldehyde
Benzyl Benzoate
Benzyl p-
Hydroxybenzoate beta-
Alanine Cyclohexanone
Ethyl Acetate
Guanidine
Carbonate
Guanidine
Hydrochloride
Guanidine Nitrate
Isobutyl Vinyl Ether
L-Tyrosine
Methyl
Salicylate
Monoethanolamin
e n-Butyl Vinyl
Ether
p-Hydroxybenzoic
Acid Sodium Allyl
Sulfonate

Lemon Chrome Yellow Middle Chrome Yellow

Oxygen Scavengers

Ammonium Bisulfite
Sodium Sulfite

pH Modifiers:

Acidic

Ammonium
Bifluoride Citric
Acid Hydrochloric

Acid Basic

Ammonium Bicarbonate
Calcium Hypochlorite
Caustic Soda
Potassium Carbonate
Potassium Hydroxide
Sodium Acetate
Trihydrate Sodium
Bicarbonate Sodium
Carbonate Sodium
Chloride
Sodium Hexametaphosphate
Sodium Hydroxide

Pigment Dyes

GENERAL PRODUCT LIST

Hydroxyethylidene-1,1- Diphosphonic Acid (HEDP.2-Na)
Formic Acid
Hepta Sodium Salt of Diethylene Triamine Penta Methylene Phosphonic Acid (DTPMP.7-Na)
Hexamethylenediamine Tetra Methylene phosphonic Acid (HMDTMPA)
Hydrolyzed Polymaleic Anhydride (HPMA)
Sodium Carbonate
Sodium Hypophosphite Monohydrate
Sodium of Polyaspartic Acid (PASP)
Sodium Polycarboxylate
Sodium Salt of bis Hexamethylene Triamine Penta Methylene phosphonic Acid (BHMTMPH.PN.X-Na) Sodium Salt of Diethylene Triamine Methylene Phosphoric Acid (DTPMP.X-Na)
Tetra Sodium Salt of 1- Hydroxyethylidene-1,1- Diphosphonic Acid (HEDP.4Na)
Tetra Sodium Salt of Amino Trimethylene Phosphonic Acid (ATMP.4-Na)

Scale Inhibitors

2-Hydroxy Phosphonoacetic Acid (HPAA)
2-Phosphonobutane-1,2,4-Tricarboxylic Acid (PBTCA)
Acrylic Acid/Acrylate/Phosphonic Acid/Sulfosalt Tetra-Copolymer (PAC-241)
Acrylic Acid-2-Acrylamido-2-Methylpropanesulfonic Acid (AA/AMPS)
Acrylic Acid-2-Hydroxypropyl Acrylate Copolymer (T- 225)
Acrylic-Acrylate-Sulfosalt Copolymer (PAC-613)
Amino Trimethylene Phosphonic Acid (ATMP)
Azodicarbonamide
Bis Hexamethylene Triamine Penta Methylene Phosphonic Acid (BHMTMPA)
Calcium Oxide
Copolymer of Phosphono and Carboxylic Acid (PCA)
D,L Malic Acid
Diethylene Triamine Penta Methylene Phosphonic Acid (DTPMPA)
Disodium Salt of 1-

GENERAL PRODUCT LIST

Surfactants

Alcohol Ethoxylated
Lauryl Sulfate
Sodium Tripolyphosphate
Sodium Xylene Sulfonate
Trimethyl Octadecyl Ammonium Chloride

Other Speciality Chemicals

2-Ethylhexyl Acetate
(Polymer) 2-Ethylhexyl
Acrylate (Polymer)
Benzoic Acid (Chemical Diverter for Acid
Jobs) Butyl p-Hydroxybenzoate
(Preservative) Ceramic Proppants
(Hydraulic Fracturing Sand) Cobalt Oxide
(Hydroprocessing Catalyst) Dimethylamine
(Demulsifier)
Potassium Ferrocyanide (Plugging Solution Additive)
Sodium Thiocyanate (Chemical Tracer)

NEWS ANNOUNCEMENT

Awarded Tier II Status with the U.S. Customs and Border Protection for C-TPAT

February 2015, Houston, Texas

Pan Asian Chemicals Inc. has been awarded The Customs-Trade Partnership Against Terrorism (C-TPAT) “Tier II” level status, following verification of compliance examinations by U.S. Customs and Border Protection (CBP), of all Pan Asian’s manufactures and terminals used. In 2012, Pan Asian Chemicals was certified and fully validated for partnership with C-TPAT (Tier I).

To qualify as an Importer Partner with C-TPAT, Pan Asian Chemicals signed an agreement to work with CBP regarding compliance of the supply chain, identify security gaps, and implement specific security measures and best practices. Additionally, Pan Asian Chemicals provided CBP with a security profile outlining the specific security measures the company has in place, addressing a broad range of security topics and presenting security profiles that list action plans to align security for its supply chain.

Achieving Tier II level status, benefits Pan Asian Chemicals as the Company is considered low risk by the CBP whereby all importations are much less likely to undergo a security exams, reducing the time and cost of getting cargo released by CBP.

C-TPAT is a voluntary supply chain security program to improve the security of supply chains with respect to terrorism. Today more than 10,000 certified partners span the gamut of the trade community with Tier I Status, and about 350 companies with Tier II status.

**For more information please visit the U.S. Customs and Border Protection website
www.cbp.gov**



PAN ASIAN Certified Under Cefas List of Notified Chemicals for Use in North Sea Offshore and Other Hydrocarbon Applications

NEWS ANNOUNCEMENT

January 19, 2015 - Houston, Texas

Eight Biocides were approved by The Centre for Environment, Fisheries & Aquaculture Science (Cefas) and authorized by the Offshore Chemicals Notification Scheme (OCNS), which manages chemical use and discharge by the UK and Netherlands offshore petroleum industries.

- PanaX 500™ 50 - PanAsian Glutaraldehyde
50% PanaX 500™ 25 - PanAsian
Glutaraldehyde 25%
- PanAsian Glutaraldehyde 50 (0.5%
Methanol) PanAsian Glutaraldehyde 50
(3% Methanol) PanAsian Glutaraldehyde
50 (5% Methanol)
- PanAsian Glutaraldehyde 25 (0.5%
Methanol) PanAsian Glutaraldehyde 25
(3% Methanol) PanAsian Glutaraldehyde
25 (5% Methanol)

See: www.cefas.defra.gov.uk/.



PAN ASIAN CHEMICALS Concluded a Warehouse / Hub Terminal Joint Venture at Shanghai, China

July 2014, Shanghai, China

NEWS ANNOUNCEMENT

This terminal enables the company to provide a full range of additional value-added supply chain services for chemical exports, and local procurements

Services include:

- Cargo assembly / staging / warehousing (totes, drums, pails and ISO tanks)
- Coordination of shipper owned tanks / containers
- Cargo receiving, storage, repacking, pre-shipment inspections
- HAZMAT
- Relabeling / marking of tanks, containers, totes , pails and drums
- Palletization, repacking
- ISO tank container cleaning, maintenance & inspections
- ISO tank turnkey export with re-importation to China, to provide overseas customers with temporary liquid storage capacity
- Port drayage services
- Quality and quantity inspection(s)
- Coordination of shipments and all exports, and preparation of export documentation



PANA ASIAN CHEMICALS INC.
**Pana Asian Chemicals Inc. was awarded Three
Prime EPA Registrations for Glutaraldehyde and
THPS for exports from China**
NEWS ANNOUNCEMENT

December 12, 2012, and April 15, 2013 - Houston, Texas

EPA awarded two Prime Registrations for Glutaraldehyde: PanaX 500™ 50 and PanaX 500™ 25, and a third Prime Registration for THPS PanaX100™ 75. All are "pure" and do not contain any Glycols, Formaldehyde, and/or other difficult to detect Aldehydes.