


Safety Data Sheet

Prepared for:

Anchor Drilling Fluids USA, Inc.
2431 East 61st Street, Suite 710
Tulsa, Oklahoma 74136
918.583.7701

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Section 1: Identification	
<i>Identification of the chemical as well as the recommended uses and the essential contact information of the supplier.</i>	
Product Identifier:	Amaizo Starch
Common Name(s):	Amaizo Starch
Chemical Family:	Polysaccharide
Synonyms:	Amaizo, Hydroloc Starch
Manufacturer, Importer, and/or Responsible Party Information	
Name:	Anchor Drilling Fluids USA, Inc.
Address:	2431 East 61 st Street, Suite 710, Tulsa, Oklahoma 74136
Phone Number:	918.583.7701
Emergency Phone Number:	918.770.6023
Recommended Use of Chemical	
Chemical Services:	Used in drilling operations
Use Restrictions:	None

Section 2: Hazard(s) Identification	
<i>Identification of the hazards of the chemical presented and the appropriate warning information associated with those hazards.</i>	
Hazard Classification:	C.4.1 Acute Toxicity – Oral, C.4.2 Acute Toxicity – Dermal, C.4.3 Acute Toxicity – Inhalation, C.4.5 Eye Damage/Irritation
Signal Word:	Warning
Hazard Statement(s):	Harmful if swallowed, Harmful in contact with skin, Harmful if inhaled, Causes eye irritation
Pictogram(s):	 Exclamation Mark
Precautionary Statement(s):	Wash thoroughly after handling, do not eat, drink or smoke when using this product, wear protective gloves and clothing, avoid breathing dust/fumes/gas/mist/vapors/spray, use only outdoors or in a well-ventilated area, wash eyes thoroughly after handling
Description of any hazards not otherwise classified:	None
Mixture Identification (if toxicity is unknown)	
Percentage of the mixture consisting of ingredient(s) with unknown toxicity:	NDA
<i>Note: this is a total percentage of the mixture and not tied to the individual ingredient(s).</i>	

Section 3: Composition/Information on Ingredients	
<i>Identification of the ingredient(s) contained in the product, including impurities and stabilizing additives. This section includes information on substances, mixtures and all chemicals where a trade secret is claimed.</i>	
Substances	
Chemical Names:	None
Common Names:	Amaizo Starch
Synonyms:	Amaizo, Hydroloc starch
Chemical Abstract Service (CAS) Numbers:	900-25-8
Any other unique identifiers:	None
Impurities and stabilizing additives (which are themselves classified and which contribute to the classification of the chemical):	None
Mixtures	
Product is a substance	
Recommended Use of Chemical	
Chemical Services:	Used in drilling operations
Use Restrictions:	None
Trade Secret	
Is the specific chemical identity and/or exact concentration of composition withheld as a trade secret?	No

Section 4: First-Aid Measures

Description of the initial care that should be given by untrained responders to an individual who has been exposed to the chemical.

Necessary first-aid instructions

Inhalation: Symptomatic treatment, see a physician if symptoms persist

Acute Symptoms of Inhalation: May cause irritation

Delayed Symptoms of Inhalation: None known

Skin Contact: Ordinary measures of personal hygiene should be adequate, see a physician if symptoms develop and/or persist

Acute Symptoms of Skin Contact: None known

Delayed Symptoms of Skin Contact: None known

Eye Contact: Flush with plenty of water, see a physician if symptoms develop and/or persist

Acute Symptoms of Eye Contact: May cause irritation

Delayed Symptoms of Eye Contact: None known

Ingestion: See a physician. Never give anything by mouth to an unconscious person

Acute Symptoms of Ingestion: May cause irritation

Delayed Symptoms of Ingestion: None known

Immediate Medical Care / Special Treatment

Is immediate medical care or special treatment required? No

If so, what is needed: N/A

Section 5: Fire-Fighting Measures

Recommendations for fighting a fire caused by or including the chemical.

Suitable Extinguishing Equipment: Dry chemical or water spray or water fog or CO₂ or foam or sand & earth

Extinguishing equipment not appropriate: None

Specific hazards created from chemical burning: None

Special protective equipment needed: Normal protective equipment including a self-contained breathing apparatus

Section 6: Accidental Release Measures

Recommendations on the appropriate response to spills, leaks, or releases; including containment and cleanup practices to prevent or minimize exposure to people, properties, or the environment.

Personal Precautions:	Local exhaust, protective clothing including gloves, a NIOSH approved mask if concentration levels exceed TLV
Emergency Procedure(s):	Immediately contain the spill by covering and blocking off the area to prevent spreading.
Method(s) and material(s) used for containment:	The spilled chemical will be contained by covering and blocking off the area. Then the chemical will be scooped up into bags or containers and disposed of in accordance with Section 13 of this SDS.
Cleanup procedure(s):	Sweep up spilled material and repackage and dispose of according to local, state and federal guidelines

Section 7: Handling and Storage

Guidance on the safe handling practices and conditions for safe storage of the chemical.

Handling precautions:	None
Hygiene practices:	Ordinary measures of hygiene should be sufficient
Safe storage recommendation:	None
Incompatible storage options:	None

Section 8: Exposure Controls/Personal Protection

Identification of the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure.

OSHA Permissible Exposure Limits (PELs):	Not a health hazard as defined by OSHA
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs):	Not reported within the ACGIH TLVs printed 2013
Exposure limit (recommended by manufacturer, importer or employer):	Not reported within the ACGIH TLVs printed 2013
Appropriate Engineering Controls:	Local exhaust, protective gloves, safety goggles, a NIOSH approved mask if concentration levels exceed TLV
Recommendations for personal protective measures:	None
Special requirements of PPE, protective clothing or respirators:	None

Section 9: Physical and Chemical Properties

Identification of physical and chemical properties associated with the substance or mixture.

Appearance (Physical State):	Powder
Color:	White
Odor:	Starch
Odor Threshold:	Not regulated
Vapor Pressure:	N/A
Vapor Density:	N/A
pH:	NDA
Relative Density:	N/A
Melting Point:	N/A
Freezing Point:	N/A
Solubility(ies):	40-60% Solubility in Water
Initial Boiling Point:	N/A
Boiling Range:	N/A
Flash Point:	716 Degrees Fahrenheit
Evaporation Rate:	N/A
Flammability:	NDA
Upper/lower flammability or explosive limits:	NDA
Partition Coefficient:	NDA
Auto-Ignition Temperature:	NDA
Decomposition Temperature:	NDA
Viscosity:	NDA

Section 10: Stability and Reactivity	
<i>Description of the reactivity hazards of the chemical and the chemical stability information.</i>	
Reactivity	
Description of specific test data:	None
Chemical Stability	
Is the chemical stable or unstable:	Stable
Stabilizers needed to maintain chemical stability:	None
Safety issues that may arise should the chemical change in physical appearance:	N/A
Other	
Conditions in which hazardous reactions may occur:	Decomposition
Possibility of hazardous reactions:	NDA
Will chemical react or polymerize:	No
Will chemical release pressure, heat, or any other hazardous conditions:	Decomposition produces smoke, fumes, carbon monoxide, carbon dioxide
Conditions to avoid:	None
Class(es) of incompatible material(s):	None
Known or anticipated hazardous decomposition products produced because of storage, use, or heating:	Smoke, fumes, carbon monoxide, carbon dioxide

Section 11: Toxicological Information	
<i>Identification of toxicological and/or health effects.</i>	
Likely routes of exposure:	Inhalation, Eyes, Skin, Ingestion
Delayed, immediate or chronic effects of short-term exposure:	None
Delayed, immediate or chronic effects of long-term exposure:	None
Numerical measurement of toxicity:	Health: 1, Flammability: 1, Reactivity: 0
Description of symptoms (lowest to most severe):	Mild to Severe irritation
Is chemical listed in the National Toxicology Program (NTP) Report on Carcinogens:	No
Has chemical been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs:	No
Has chemical been found to be a potential carcinogen by OSHA:	No

Section 12: Ecological Information (non-mandatory)

Information to evaluate the environmental impact of the chemical if it were released to the environment.

Toxicity test results performed on aquatic and/or terrestrial organisms:	None
Does the chemical have the potential to degrade the environment (biodegradation, oxidation, hydrolysis, etc.):	No
Bioaccumulation test results:	None
Potential of chemical moving from soil to the groundwater:	Low possibility. Product is not entirely soluble in water and will not be able to easily penetrate soil to reach groundwater
Other adverse effects:	None known

Section 13: Disposal Considerations (non-mandatory)

Guidance on proper disposal practices, recycling or reclamation of the chemical or its container. Safe handling practices to minimize exposure. (Refer to section 8 for more information)

Appropriate disposal containers:	Any container that is in accordance to local, state and federal regulation
Appropriate disposal methods:	Dispose of in accordance to local, state, and federal regulations
Physical and chemical properties that may affect disposal activities:	None
Special precautions for landfills or incineration activities:	None
Is it advisable to utilize sewage disposal for this chemical:	No

Section 14: Transport Information (non-mandatory)

Guidance on classification information for shipping and transporting the chemical by road, air, rail, or sea.

This product is not a DOT/IMO Hazardous Material

Section 15: Regulatory Information (non-mandatory)

Identification of safety, health and environmental regulations specific for the chemical that is not indicated anywhere else on this SDS.

Chemical Weapons Convention (CWC): This product does not contain any chemicals listed under the CWC schedules of chemicals

Clean Air Act - Hazardous Air Pollutants (HAP): This product does not contain any chemicals listed within the Hazardous Air Pollutants.

Clean Air Act - Ozone Depleting Substances (ODS): This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpart A, App. A+B).

Clean Water Act - Priority Pollutants (PP): This product does not contain any PP listed under the U.S. Clean Water Act, Section 307 (2)(1) PP List (40 CFR 401.15).

Occupational Safety and Health Act (OSHA): The OSHA Hazard Communication Standard (29 CFR 1910.1200) defines this product as C.4.1, C.4.2 & C.4.3 Acute Toxicity - Oral, Dermal & Inhalation: Hazard Category 4. For more information, see Section 2 of this SDS.

Resource Conservation and Recovery Act (RCRA): This product is not considered to be a P- or U-Listed hazardous waste under RCRA (40 CFR 261).

Superfund Amendments and Reauthorization Act (SARA) Title III: Section 302 - Extremely Hazardous Substances (EHS): This product does not contain any chemicals regulated under Section 302 (40 CFR 355) as extremely hazardous substances.

Superfund Amendments and Reauthorization Act (SARA) Title III: Section 304 - Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): This product does not contain any chemicals regulated under Section 304 (40 CFR 302) as hazardous substance(s) for emergency release notification.

Superfund Amendments and Reauthorization Act (SARA) Title III: Section 311/312 - Hazard Communication Standard (HCS): This product is not regulated under Section 3-1-312 (40 CFR 370).

Superfund Amendments and Reauthorization Act (SARA) Title III: Section 313 Toxic Chemical List (TCL): This product does not contain any chemicals for routine annual toxic chemical release reporting under Section 313 (40 CFR 372).

TSCA Section 5(e) - Consent Order / Significant New Use Rule (SNUR): This product is not subject to a Section 5(3) Consent Order for Significant New Use Rule (SNUR).

TSCA Section 8(b) - Inventory Status: All chemical(s) comprising this product are either exempt or not listed on the TSCA inventory.

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

Items in red require immediate attention.

Section 16: Other Information

Date of SDS Preparation: October 2, 2013

Revision Date: N/A

Changes from previous version: N/A

Other useful information:

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, expressed or implied, and we assume no responsibility for any damage or expense.