

# Safety Data Sheet

Prepared for:

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

October 10, 2013

## Section 1: Identification

*Identification of the chemical as well as the recommended uses and the essential contact information of the supplier.*

**Product Identifier:** Starch (White & Yellow) Pregelatinized

**Common Name(s):** N/A

**Chemical Family:** Polysaccharide

**Synonyms:** Drilling Starch, Yellow Starch, White Starch

Manufacturer, Importer, and/or Responsible Party Information

**Name:** Anchor Drilling Fluids USA, Inc.

**Address:** 2431 East 61<sup>st</sup> Street, Suite 710, Tulsa, Oklahoma 74136

**Phone Number:** 918.583.7701

**Emergency Phone Number:** CHEMTREC 800.424.9300

Recommended Use of Chemical

**Chemical Services:** Use in mud drilling operations

**Use Restrictions:** N/A

## Section 2: Hazard(s) Identification

*Identification of the hazards of the chemical presented and the appropriate warning information associated with those hazards.*

**Hazard Classification:** C.4.1 Acute Toxicity - Oral: Hazard Category 4

**Signal Word:** Warning

**Hazard Statement(s):** Harmful if swallowed

**Pictogram(s):**

Exclamation mark



**Precautionary Statement(s):** Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

**Description of any hazards not otherwise classified:** N/A

Mixture Identification (if toxicity is unknown)

**Percentage of the mixture consisting of ingredient(s) with unknown toxicity:** N/A

*Note: this is a total percentage of the mixture and not tied to the individual ingredient(s).*

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	
This product is a mixture	
Mixtures	
<b>Chemical Names and Concentrations:</b>	Pregelatinized Starch: Concentration is proprietary
<b>Common Name:</b>	N/A
<b>Synonym(s):</b>	Drilling Starch, Yellow Starch, White Starch
<b>Chemical Abstract Service (CAS) Number:</b>	900-25-8
<b>Any other unique identifiers:</b>	No
<b>Impurities and stabilizing additives (which are themselves classified and which contribute to the classification of the chemical):</b>	None
Recommended Use of Chemical	
<b>Chemical Services:</b>	Use in mud drilling operations
<b>Use Restrictions:</b>	N/A
Trade Secret	
<b>Is the specific chemical identity and/or exact concentration of composition withheld as a trade secret?</b>	Yes

Section 4: First-Aid Measures	
<i>Description of the initial care that should be given by untrained responders to an individual who has been exposed to the chemical.</i>	
Necessary first-aid instructions	
<b>Inhalation:</b>	Symptomatic treatment
<b>Acute Symptoms of Inhalation:</b>	None known
<b>Delayed Symptoms of Inhalation:</b>	None known
<b>Skin Contact:</b>	Ordinary measures of personal hygiene should be adequate
<b>Acute Symptoms of Skin Contact:</b>	None known
<b>Delayed Symptoms of Skin Contact:</b>	None known
<b>Eye Contact:</b>	Flush with plenty of water. If irritation develops, call a physician
<b>Acute Symptoms of Eye Contact:</b>	May cause irritation
<b>Delayed Symptoms of Eye Contact:</b>	None known
<b>Ingestion:</b>	Consult a physician. Never give anything by mouth to an unconscious person
<b>Acute Symptoms of Ingestion:</b>	May cause nausea
<b>Delayed Symptoms of Ingestion:</b>	None known
Immediate Medical Care / Special Treatment	
<b>Is immediate medical care or special treatment required?</b>	No
<b>If so, what is needed:</b>	N/A

### Section 5: Fire-Fighting Measures

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

**Suitable Extinguishing Equipment:** Dry chemical, water spray, water fog, carbon dioxide, foam, or sand & earth

**Extinguishing equipment not appropriate:** N/A

**Specific hazards created from chemical burning:** In common with most organic materials, this product should be treated as a combustible dust in the finely divided and suspended state

**Special protective equipment needed:** Firefighters should wear 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:** Avoid dust generation

**Emergency Procedure(s):** None required

**Method(s) and material(s) used for containment:** Broom/shovel

**Cleanup procedure(s):** Sweep material and repackage

### Section 7: Handling and Storage

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

**Handling precautions:** Wear NIOSH approved mask if excessive dust present

**Hygiene practices:** Normal hygiene practices are adequate

**Safe storage recommendation:** Store in cool, dry place

**Incompatible storage options:** N/A

### 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 listed

**American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs):** Not listed

**Exposure limit (recommended by manufacturer, importer or employer):** N/A

**Appropriate Engineering Controls:** Store in cool, dry place

**Recommendations for personal protective measures:** Wear a NIOSH approved mask if excessive dust present

**Special requirements of PPE, protective clothing or respirators:** N/A

## Section 9: Physical and Chemical Properties

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

<b>Appearance (Physical State):</b>	Powder
<b>Color:</b>	White or Yellow
<b>Odor:</b>	Starch
<b>Odor Threshold:</b>	Not regulated
<b>Vapor Pressure:</b>	N/A
<b>Vapor Density:</b>	N/A
<b>pH:</b>	NDA
<b>Relative Density:</b>	N/A
<b>Melting Point:</b>	N/A
<b>Freezing Point:</b>	N/A
<b>Solubility(ies):</b>	40-60% in water
<b>Initial Boiling Point:</b>	N/A
<b>Boiling Range:</b>	N/A
<b>Flash Point:</b>	716° F
<b>Evaporation Rate:</b>	N/A
<b>Flammability:</b>	1
<b>Upper/lower flammability or explosive limits:</b>	N/A
<b>Partition Coefficient:</b>	N/A
<b>Auto-Ignition Temperature:</b>	N/A
<b>Decomposition Temperature:</b>	N/A
<b>Viscosity:</b>	N/A

## Section 10: Stability and Reactivity

*Description of the reactivity hazards of the chemical and the chemical stability information.*

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

### Section 11: Toxicological Information

*Identification of toxicological and/or health effects.*

**Likely routes of exposure:** Inhalation, skin and/or eye contact or ingestion

**Delayed, immediate or chronic effects of short-term exposure:** May cause irritation and/or nausea

**Delayed, immediate or chronic effects of long-term exposure:** None known

**Numerical measurement of toxicity:** Health: 1, Flammability: 1, Reactivity: 0

**Description of symptoms (lowest to most severe):** Irritation/nausea

**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 potential in normal conditions

**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:** Original packaging

**Appropriate disposal methods:** None known

**Physical and chemical properties that may affect disposal activities:** None

**Special precautions for landfills or incineration activities:** Incineration is suggested

**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 chemical as a C.4.1 Acute Toxicity - Oral: 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.

## Section 16: Other Information

**Date of SDS Preparation:** October 10, 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.