



WYO-BEN, INC.

SAFETY DATA SHEET

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: **CLEARTREAT™ 3111**
Chemical Family: Water soluble polymer mixture
Application: Drilling Fluid Additive

Manufacturer/Supplier: Wyo-Ben, Inc.
1345 Discovery Drive
Billings, MT 59102 USA
Telephone: 800.548.7055
Facsimile: 406.656.0748

Emergency Phone Number: CHEMTREC® 800.424.9300

SECTION 2 — HAZARD IDENTIFICATION

This product is not classified according to paragraph (d) of 29 CFR 1910.1200 and does not require a hazard warning label.

Hazard Classification: Aquatic acute - 2

Signal Word: None

Hazard Statements: Toxic to aquatic life.

Hazard Symbol: None

Precautionary Statements: Avoid release to the environment.
Dispose of contents/container to hazardous or special waste collection point.

Hazards Not Otherwise Classified:

Classified: Aqueous solutions or powders that become wet render surfaces extremely slippery.
This product is not combustible in the form in which it is shipped by the manufacturer, but may form a combustible dust through downstream activities (e.g. grinding, pulverizing) that reduce its particle size.

Emergency Overview: The product can cause skin and eye irritation. May cause some irritation to the respiratory system if dust is inhaled. Avoid the formation and deposition of dust. Avoid sources of ignition.
Refer to MSDS Section 7 for Dust Explosion information. Avoid creating dusty conditions, dust build-up or formation of dust clouds. Avoid all sources of ignition: heat, sparks, open flame.
Combustible organic powder.

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

Substances:

Substances	CAS Number	Percent
Acrylamide Copolymer	Proprietary*	≥85%
Adipic Acid	124-04-09	≤5%

* The specific identity and/or percentage of composition has been withheld as a trade secret.

SECTION 4 — FIRST AID MEASURES

General Advice: Remove contaminated clothing.

If inhaled: If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

If on skin: Wash thoroughly with soap and water. If irritation develops seek medical attention.

If in eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open. Seek medical attention.

If swallowed: Rinse mouth and drink plenty of water. Do NOT induce vomiting. Seek immediate medical attention.

Most Important Symptoms and Effects, Both Acute and Delayed:

If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

Indication of Any Immediate Medical Attention and Special Treatment Needed:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Other Information: Aqueous solutions or powders that become wet render surfaces extremely slippery.

SECTION 5 — FIRE FIGHTING MEASURES

Fire Extinguishing Media: Use foam, dry chemical.

Unsuitable Extinguishing Media: Water jet, carbon dioxide. If water is used, restrict pedestrian traffic in areas where slip hazard may exist.

Thermal Decomposition Products: Oxides of carbon (CO_x) and nitrogen (NO_x).

Special Protective Equipment for Firefighters: Wear self-contained breathing apparatus (SCBA).

Special Exposure Hazards: CAUTION! Extremely slippery when wet.

Additional Information: The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

CAUTION: Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

NFPA Rating: Health = 1, Flammability = 1, Reactivity = 0

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Further accidental release measures:	Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Forms slippery surfaces with water.
Personal Precautionary Measures:	Aqueous solutions or powders that become wet render surfaces extremely slippery. Wear appropriate PPE (see Sec. 8). Keep people away from spills and leaks
Environmental Precautionary Measures:	Do not allow product to contaminate drains or surface water systems.
Procedure for Cleaning/Absorption:	Do not flush with water. Depending on volume, pick up with suitable equipment to avoid raising dust and place in suitable, closed containers for disposal. Use non-sparking tools.

SECTION 7 — HANDLING AND STORAGE

Handling

General advice:	Handle in accordance with good industrial hygiene and safety practice. Aqueous solutions or powders that become wet render surfaces extremely slippery. Use appropriate PPE. Protection against fire and explosion: Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.
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Storage

General advice:	Store in unopened original containers in a cool and dry place. Avoid wet, damp or humid conditions, temperature extremes and ignition sources. Keep container closed when not in use.
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Storage Stability:	Avoid extreme heat.
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SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Substances	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA
Adipic acid	124-04-09	5 mg/m ³	None

* More restrictive exposure limits may be enforced by some states, agencies, or other authorities.

Advice on system design:	It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area
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(i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

Respiratory protection: Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.
Hand protection: Chemical resistant protective gloves
Eye protection: Safety glasses with side-shields.
Skin/Body protection: Work clothes protecting arms, legs and body.

General safety and hygiene measures: Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or tobacco use at the place of work. Ensure adequate ventilation.

Environmental Exposure Controls: Do not allow discharge of product into environment. Do not flush into surface water.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Powdered solid
Color: Off-White
Odor: odorless
pH: 3.5 – 4.5 (1.0% aqueous solution)
Relative Density: 0.75
Boiling Point (°F / °C): Not applicable
Melting Point / Freezing Point (°F / °C): Not determined. Decomposes at elevated temperature.
Vapor Pressure @ 20 C (mmHg): Not determined
Vapor Density (Air=1): Not determined
Percent Volatiles: Not determined
Evaporation Rate (Butyl Acetate=1): Not applicable
Solubility: Soluble in water forming viscous solution
Partition coefficient: Not determined
Flash Point (°F / °C): Not applicable
Flash Point Method: Not applicable
Autoignition Temperature (°F / °C): Not applicable – does not autoignite (based on chemical structure).
Flammability (solid/gas): No data available – not highly flammable as a solid
Flammability/Explosive Limits: For solids not relevant for classification and labeling.
Decomposition temperature (°F / °C): No decomposition if stored and handled as prescribed/indicated

SECTION 10 — STABILITY AND REACTIVITY

Reactivity: No hazardous reactions if stored and handled as prescribed/indicated.
No corrosive effect on metal.
Not fire-propagating

Stability Data:	The product is stable if stored and handled as prescribed/indicated.
Hazardous Reactions:	The product is not a dust explosion risk as supplied; however the build-up of fine dust can lead to a risk of dust explosions.
Conditions to Avoid:	Avoid extreme temperatures. Avoid humidity. Avoid electro-static discharge. Avoid dust formation.
Incompatibility (Materials to Avoid):	Incompatible with strong acids, bases and oxidizing agents.
Hazardous Decomposition Products:	No hazardous decomposition products if stored and handled as prescribed/indicated. Thermal decomposition may produce oxides of carbon (COx) and nitrogen (NOx).

SECTION 11 — TOXICOLOGICAL INFORMATION

Primary Routes of Exposure:	Skin and eye contact. Inhalation of dust.
Acute Toxicity:	Virtually nontoxic after a single ingestion.
Acute Oral Toxicity:	LD50/Rat > 5,000 mg/kg (OECD Guideline 401)
Corrosion / Irritation:	Not irritating to eyes and skin.
Dermal:	Rabbit, Non-irritant (OECD Guideline 404)
Eye:	Rabbit, Non-irritant
Sensitization:	Based on the ingredients, there is no suspicion of a skin-sensitizing potential.
Aspiration Hazard:	No aspiration hazard expected.
Chronic Toxicity/Effects	
Repeated dose toxicity:	Assessment of repeated dose toxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The product has not been tested. The statement has been derived from the properties of the individual components.
Genetic toxicity:	Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.
Carcinogenicity:	Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect. None of the components in this product at concentrations greater than 0.1% are listed by IARC; NTP, OSHA or ACGIH as a carcinogen.
Reproductive toxicity:	Assessment of reproduction toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.
Teratogenicity:	Assessment of teratogenicity: No teratogenic effects reported.
Other Information:	The product has not been tested. The statements on toxicology have been derived from products of a similar structure and composition.
Symptoms of Exposure:	No significant symptoms are expected due to the non-classification of the product.

SECTION 12 — ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity: Acute effects on aquatic organisms are due to the cationic charge of the polymer, which is quickly neutralized in natural water courses by irreversible adsorption onto particles, hydrolysis and dissolved organic carbon. Fish toxicity and aquatic toxicity are drastically reduced by rapid irreversible adsorption onto suspended and/or dissolved organic matter. The hydrolysis products are not acutely harmful to aquatic organisms. Tested was a substance with a high cationic charge density. As the acute effects are associated with the charge density, substances with a lower charge density are expected to have a lower toxicity.

Toxicity to fish: LC50 Fish 96 hr (Static) 1 - 10 mg/l

Aquatic invertebrates: EC50 Daphnia 48 hr 10 - 100 mg/l

Persistence and degradability: Not readily biodegradable (by OECD criteria).

Information on Stability in Water (Hydrolysis)

> 70 % (28 d) (pH value > 6). In contact with water the substance will hydrolyze rapidly.

Bioaccumulative potential: Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

Mobility in soil: No data available.

Information on: cationic polyacrylamide: Adsorption to solid soil phase is expected.

Additional information: Must not be discharged into the environment. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

SECTION 13 — DISPOSAL CONSIDERATIONS

Disposal Method: Dispose in accordance with federal, state and local regulations.

Contaminated Packaging: Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

SECTION 14 — TRANSPORT INFORMATION

Land Transportation

DOT – Not classified as dangerous

Air Transportation

IATA – Not classified as dangerous.

Sea Transportation

IMDG – Not classified as dangerous.

SECTION 15 — REGULATORY INFORMATION

US Regulations

TSCA Inventory: All components are either listed on the inventory or are exempt from listing.

EPA SARA (311, 312):	Hazard Class	Not applicable, Non-hazardous
EPA RCRA Hazardous Waste:		Not considered a hazardous waste as defined by 40 CFR 261.
California Proposition 65:		WARNING! This product contains a chemical which is known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16 — OTHER INFORMATION

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DISCLAIMER

All information presented herein is believed to be accurate; however, it is the user's responsibility to determine in advance of need that the information is current and suitable for their circumstances. No warranty or guarantee, expressed or implied is made by WYO-BEN, INC. as to this information, or as to the safety, toxicity or effect of the use of this product.