

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|--------------------------------------|--|
| Product Name | HYPERDRILL® AF247RD |
| Product Identifier | Anionic water-soluble polymer |
| Product Family | Flocculation agent |
| Supplier | Prairie Mud Service 738 6th Street, Estevan, SK. S4A 1A4 306-634-3411 |
| Emergency Contact Information | CANUTEC, (613) 996-6666, 24/7 |
| Use | Drilling Fluid Additive |

2. HAZARDS IDENTIFICATION

Emergency Overview White powder. Odourless. Product is EXTREMELY slippery when wet!

Potential Health Effects

| | |
|---------------------|---|
| Inhalation | Can irritate the nose and throat. |
| Skin Contact | Repeated or prolonged exposure can irritate the skin. |
| Eye Contact | Symptoms include sore, red eyes, and tearing. |
| Ingestion | Symptoms may include nausea, vomiting, stomach cramps and diarrhea. |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | Concentration % | Other Identifiers |
|-------------------------------|---------|-----------------|-------------------|
| Anionic water-soluble polymer | | | |

4. FIRST AID MEASURES

First Aid Procedures

| | |
|---------------------------|--|
| Inhalation | Move victim to fresh air. If breathing has stopped, trained personnel should begin artificial respiration (AR). |
| Skin Contact | Wash gently and thoroughly with lukewarm, gently flowing water and non-abrasive soap for 5 minutes. If adverse symptoms develop, seek medical attention. |
| Eye Contact | Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If irritation or pain persists, see a doctor. |
| Ingestion | The product is not considered toxic based on studies on laboratory animals. |
| First Aid Comments | If exposed or concerned, see a doctor for medical advice. |

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Specific Hazards Arising from the Chemical Spills produce EXTREMELY slippery surfaces.

6. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal Precautions | No special precautions are necessary. |
| Environmental Precautions | Avoid contaminating water. |
| Methods for Containment and Clean-up | Do not flush with water. Clean up promptly by scoop or vacuum. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water. |

7. HANDLING AND STORAGE

| | |
|-----------------|--|
| Handling | Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Wash hands before breaks and at the end of workday. |
| Storage | Keep in a dry, cool place (0 - 35°C). |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|--|---|
| Engineering Controls | Use local exhaust if dusting occurs. Natural ventilation is adequate in absence of dusts. |
| Personal Protective Equipment (PPE) | |
| Eye/Face Protection | Safety glasses with side shields. Do not wear contact lenses. |
| Skin Protection | Use rubber gloves. No other special protective equipment required. |
| Respiratory Protection | Dust safety masks are recommended where concentration of total dust is more than 10 mg/m ³ . |
| General Hygiene Considerations | Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------------------|--|
| Physical State | Solid |
| Appearance | White powder. |
| Odour | Odourless |
| Odour Threshold | Not applicable |
| Melting Point | Not applicable |
| Relative Density (water = 1) | Not available |
| Bulk Density | 700 kg/m ³ (44 lb/ft ³) |
| Solubility in Water | Soluble |
| pH | 6 - 8 (0.5% solution) |
| Vapour Pressure | Not applicable |
| Vapour Density (air = 1) | Not available |
| Evaporation Rate | Not applicable |
| Flash Point | Not applicable |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Chemical Stability | Normally stable. |
| Incompatible Materials | Strong oxidants may cause exothermic reactions. |
| Hazardous Decomposition Products | Thermal decomposition may produce CO and NO. |
| Possibility of Hazardous Reactions | Hazardous polymerization will not occur. |

11. TOXICOLOGICAL INFORMATION

Oral: LD50 > 5,000 mg/kg (rat)

Dermal: The results of testing on rabbits showed this material to be non-toxic even at high dose levels.

Eye Irritation/Corrosion

Testing conducted according to the Draize technique showed the material produces no corneal or iridial effects and only slight transitory conjunctival effects similar to those which all granular materials have on conjunctivae.

Effects of Long-Term (Chronic) Exposure

A two-year feeding study on rats did not reveal adverse health effects.

A one-year feeding study on dogs did not reveal adverse health effects.

Respiratory and/or Skin Sensitization

The results of testing on guinea pigs showed this material to be non-sensitizing.

12. ECOLOGICAL INFORMATION

Ecotoxicity The product is rapidly eliminated from the aquatic medium through reversible adsorption onto suspended matter and dissolved organics.

Fish: LC50/Danio rerio/96 hr > 100 mg/L (OECD 203)

(based on the toxicity of the components using the conventional method)

Algae: IC50/Scenedesmus subspicatus/72 hr >100 mg/L (OECD 201)

(based on the toxicity of the components using the conventional method)

Daphnia: EC50/Daphnia magna/48 hr > 100 mg/L (OECD 202)

(based on the toxicity of the components using the conventional method)

Persistence and Degradability Does not biodegrade readily.

Bioaccumulation / Accumulation This product and its byproducts are not known to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Rinse empty containers with water and use rinse water to prepare the working solution. Can be landfilled or incinerated when in compliance with local regulations. Dispose of in accordance with federal, provincial/state and local regulations.

14. TRANSPORT INFORMATION

Shipping Information

Not regulated under Canadian TDG Regulations.

Other Transport Information

Special Shipping Information Not applicable

15. REGULATORY INFORMATION

Canada

WHMIS Classification

Not a WHMIS controlled product.

16. OTHER INFORMATION

NFPA Rating Health - 1 Flammability - 1 Instability - 0

MSDS Prepared By Prairie Mud Service

Date of Preparation May 25, 2021

Disclaimer

This Health and Safety information is correct to the best of our knowledge and belief at the date of its publication, but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as guidance for safe handling, storage, and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.