



### Safety Data Sheet

#### SECTION 1. IDENTIFICATION

**Product Identifier** PRAIRIE DRILL ENZYME  
**Product Family** Enzyme and Acid Blend  
**Recommended Use** Oil Field Additive.  
**Supplier** Prairie Mud and Chemical Serv., 738 - 6th Street, Estevan, SK, S4A 1A4, 306-634-3411  
**Emergency Phone No.** CANUTEC, 613-996-6666 or \*666 on a cellular phone (Canada Only), 24 Hours / Day

#### SECTION 2. HAZARDS IDENTIFICATION

##### GHS Classification

Serious eye damage/eye irritation - Category 2A

##### GHS Label Elements



Signal Word:

Warning

Hazard Statement(s):

Causes serious eye irritation.

Precautionary Statement(s):

Wash hands and skin thoroughly after handling.

Wear eye protection/face protection.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Citric acid	77-92-9	30 - 60	

##### Notes

Concentrations are expressed in % weight/weight.

#### SECTION 4. FIRST-AID MEASURES

##### First-aid Measures

###### Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing. If breathing has stopped, trained personnel should begin rescue breathing. Seek immediate medical attention.

###### Skin Contact

Quickly and gently blot or brush away excess chemical. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing

water and mild soap for 15-20 minutes. Seek medical attention if irritation develops or persists.

#### **Eye Contact**

Quickly and gently blot or brush chemical off the face. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Seek medical attention if irritation develops or persists.

#### **Ingestion**

Rinse mouth with water. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Seek medical attention.

#### **Most Important Symptoms and Effects, Acute and Delayed**

If in eyes:

Causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

If swallowed:

Can irritate the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

## **SECTION 5. FIRE-FIGHTING MEASURES**

### **Extinguishing Media**

#### **Suitable Extinguishing Media**

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

#### **Unsuitable Extinguishing Media**

Water Jet.

### **Specific Hazards Arising from the Chemical**

Not classified as flammable or combustible.

### **Special Protective Equipment and Precautions for Fire-fighters**

Evacuate area. Fight fire from a safe distance or a protected location.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### **Personal Precautions, Protective Equipment, and Emergency Procedures**

Handle in accordance with good industrial hygiene and safety practice. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation.

### **Environmental Precautions**

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

### **Methods and Materials for Containment and Cleaning Up**

Stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react with spilled product. Contaminated absorbent poses the same hazard as the spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. After cleaning, flush away traces with water collect washing for disposal.

## **SECTION 7. HANDLING AND STORAGE**

### **Precautions for Safe Handling**

Prevent uncontrolled release of product. Wear personal protective equipment to avoid direct contact with this chemical. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Do NOT eat, drink or store food in work areas. Remove contaminated clothing and protective equipment before entering eating areas or leaving work area. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

### **Conditions for Safe Storage**

Store in an area that is: cool, temperature-controlled, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Do not store in unlabeled containers.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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## Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Citric acid	Not established	Not established	Not established	Not established	Not established	Not established

### Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles.

#### Skin Protection

Prevent skin contact. Wear chemical protective clothing e.g. gloves, aprons, boots. Chemically resistant gloves should be used.

#### Respiratory Protection

Wear a NIOSH approved dust mask when required.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	White powder.
Odour	Odourless
Odour Threshold	Not available
pH	2.6 (10% solution)
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	> 93.3 °C (199.9 °F)
Evaporation Rate	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.540
Solubility	Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic)
<b>Other Information</b>	
Physical State	Solid
Bulk Density	Not available

## SECTION 10. STABILITY AND REACTIVITY

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

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Generation of dust. Accumulation of static charge.

**Incompatible Materials**

Strong bases (e.g. sodium hydroxide), strong oxidizing agents (e.g. perchloric acid).

**Hazardous Decomposition Products**

Oxides of Carbon

Smoke on combustion.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute Toxicity**

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Citric acid	Not available	3000 mg/kg	Not available

**Skin Corrosion/Irritation**

Animal tests show mild irritation. (Citric acid)

**Serious Eye Damage/Irritation**

Animal tests show serious eye irritation. (Citric acid)

**STOT (Specific Target Organ Toxicity) - Single Exposure**

**Inhalation**

May cause mechanical irritation.

**Skin Absorption**

No information was located.

**Ingestion**

No information was located.

**Aspiration Hazard**

Not known to be an aspiration hazard.

**Respiratory and/or Skin Sensitization**

Not a respiratory sensitizer. Not a skin sensitizer.

**Carcinogenicity**

Chemical Name	IARC	ACGIH®	NTP	OSHA
Citric acid	Not Listed	Not designated	Not Listed	Not Listed

No information was located.

**Reproductive Toxicity**

**Development of Offspring**

No information was located.

**Sexual Function and Fertility**

No information was located.

**Germ Cell Mutagenicity**

No information was located.

**SECTION 12. ECOLOGICAL INFORMATION**

Environmental information was not located.

**Toxicity**

Citric Acid - LC50 / 96h / Goldfish: 440-706 mg/L.

**Persistence and Degradability**

No information was located.

**Bioaccumulative Potential**

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No information was located.

#### **Mobility in Soil**

Studies are not available.

### **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **Disposal Methods**

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

### **SECTION 14. TRANSPORT INFORMATION**

Not regulated under Canadian TDG Regulations.

**Special Precautions for User** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

### **SECTION 15. REGULATORY INFORMATION**

#### **Safety, Health and Environmental Regulations**

##### **Canada**

##### **Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

All intentional components of this product are either on the DSL, the confidential DSL or notifications / import restrictions are in place.

##### **USA**

##### **Toxic Substances Control Act (TSCA) Section 8(b)**

All ingredients are listed on the TSCA Inventory.

### **SECTION 16. OTHER INFORMATION**

**SDS Prepared By** Engenium Chemicals

**Phone No.** 403-279-8545

**Date of Preparation** June 05, 2015

**Disclaimer** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.