

Web SDS: S343

## **Zeus Fix**

1. Identification

Product Name: Zeus Fix Item #: 0295, 0198YL, MA0102214

Synonyms: N/A

Recommended Use: General Fixation Manufacturer: BBC Biochemical 409 Eleanor Lane,

Mount Vernon, WA 98273 1-800-635-4477 Restrictions on Use: N/A In Case of Emergency: Chemtrec US 1-800-424-9300 Chemtrec International 703-527-3887

2. Hazards Identification

**OSHA Hazard Classification(s):** 

Acute Toxicity - Oral - Category 4 **Signal Word:** Warning

Hazard Statement(s): Harmful if swallowed.

Pictogram(s):



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

Response: If swallowed: Call a doctor if you feel unwell. Rinse mouth.

Storage: N/A

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A Percent of mixture with unknown acute toxicity: N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS#	Concentration %
Water		7732-18-5	Trade Secret
Ammonium Sulfate		7783-20-2	Trade Secret
Select Buffers		Trade Secret	Trade Secret

### 4. First Aid Measures

**Eye Contact:** 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.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Toxic by ingestion, may cause death. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness. Nausea, sore stomach.

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

#### 5. Fire- Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam.

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## **Zeus Fix**

Fire Hazards (Chemical): Not flammable or combustible.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing. **Precautions for Firefighters:** Fire fighters should use self-contained breathing apparatus and protective clothing.

#### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store in a well-ventilated place. Keep cool.

#### 8. Exposure Controls/Personal Protection

### **OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS#	OSHA PEL TWA
N/A		

#### **ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS#	ACGIH PEL TLV	ACGIH STEL
N/A			

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

## 9. Physical and Chemical Properties Section

Appearance: Colorless to light yellow, Colorless to light yellow liquid

Molecular Weight: N/A Molecular Formula: N/A

pH: N/A

**Boiling Point and Boiling Range:** N/A **Melting Point/Freezing Point:** N/A

Flash Point: N/A

Specific Gravity/Relative Density: N/A

Odor: N/A

Odor Threshold: N/A
Color: Colorless to light yellow
Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: N/A Evaporation Rate: N/A

Partition Coefficient: n-octanol/water: N/A

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## **Zeus Fix**

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: N/A

**Decomposition Temperature: N/A** 

#### 10. Stability and Reactivity

Reactivity: N/A

Chemical Stability: Stable

Conditions of Stability/Instability:

Stabilizers needed: None

Safety issue indicated by appearance change: N/A

Other: N/A

Hazardous Reactions: N/A

Hazardous Polymerization: Does not occur

Conditions to avoid: N/A

Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases

Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors

(I.e. Carbon monoxide, nitrogen oxides, sulfur oxides) may be released in a fire.

## 11. Toxicological Information

#### **Likely Routes of Exposure**

**Eyes:** Irritation. **Skin:** Irritation.

Inhalation: Dizziness, headache.

**Ingestion:** Toxic by ingestion. May cause death.

Signs or Symptoms of Exposure: Irritation eyes, nose, throat; headache, dizziness. Nausea, sore stomach.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures): Ammonium Sulfate CAS# 7783-20-2: (oral, mouse) LD50=640 mg/kg; (oral, rat)

LD50=2840 mg/kg

Carcinogenicity (NTP, IARC, OSHA): N/A

#### 12. Ecological Information

**Ecotoxicity:** Ammonium Sulfate CAS#7783-20-2: Toxicity to fish: LC50 - Oncorhynchus mykiss (rainbow trout) - 36.7 mg/L - 96h; Toxicity to daphnia and other aquatic invertebrates: LC50 - Daphnia magna (Water flea) - 433 mg/L - 50h.

Persistence and degradability:

Bioaccumulation Potential (octanol-water partition coefficient, BCF):

Mobility in the soil:

**Adverse Environmental Effects:** 

## 13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities\*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.\*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.\*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.\*

Waste Stream: Consult your local or regional authorities.\*

## 14. Transport Information

**UN Number:** 

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## **Zeus Fix**

UN Proper Shipping Name:
Transport Hazard Class(es):
Packing Group Number:
Environmental Hazards (IMDG code):
Marine Pollutant:
Transport in Bulk (IBC Code):
Special Transport Precautions:

# 15. Regulatory Information

OSHA: DOT: EPA: CPSC:



## **Zeus Fix**

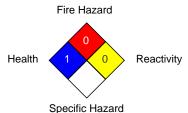
### 16. Other Information

Revision Date: 09/14/2015

#### **NFPA**

Health	1
Fire Hazard	0
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



### **HMIS**

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Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS



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