

EDEN BIOSCIENCE CORPORATION  
 EMERGENCY CONTACT: 1-800-424-9300  
 MESSENGER STS

## MATERIAL SAFETY DATA SHEET MESSENGER STS

### SECTION 1 .....PRODUCT AND COMPANY IDENTIFICATION.....

Product Trade Name: **MESSENGER STS**  
 Company: Eden Bioscience Corporation  
 3830 Monte Villa Parkway  
 Bothell, WA 98021-6942  
 EPA Registration No.: 69834-2  
 Chemical Name: Not Applicable.  
 Common Name: Not Applicable.

### SECTION 2 ..... COMPOSITION/INFORMATION ON INGREDIENTS.....

Harpin Protein (active ingredient) .....	3.0%
Tris(hydroxymethyl)aminomethane; CAS # 77-86-1 .....	0.3%
Ethylenediamine tetraacetic acid (EDTA); CAS # 60-00-4 .....	0.5%
Sodium Thiosulfate; Pentahydrate CAS # 10102-17-7 or Anhydrous CAS # 7772-98-7 .....	4.5%
Other ingredients .....	91.7%

### SECTION 3 ..... HAZARDS IDENTIFICATION.....

Ingestion: No Hazard.  
 Eye Contact: Minimally irritating.  
 Skin Contact: Minimally irritating.  
 Inhalation As Dust: Large quantities may cause irritation of the respiratory tract and/or coughing.  
 Other Toxic Effects: N/A.

### SECTION 4 ..... FIRST AID MEASURES.....

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.  
 IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.  
 IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration and get medical attention.

### SECTION 5 ..... FIRE FIGHTING MEASURES.....

Flash Point (Method): N/A.  
 Flammable Limits (Vol. % in air): N/A.  
 Auto-ignition Temperature: N/A.  
 Extinguishing Media: Water.  
 Unusual Fire and Explosion Hazards: None known.

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

Sweep up and dispose of in compliance with all federal, state and local laws.

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

Store in original sealed container in an area not accessible to children or unauthorized persons. Keep products away from sunlight, moisture and heat. After opening, use promptly. Do not contaminate food, water or feed by handling and storage.

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SECTION 8 ..... EXPOSURE CONTROL/PERSONAL PROTECTION.....

Protective Clothing: Waterproof gloves, long sleeve shirt, pants or overalls, shoes and socks.

Respiratory Protection: Particulate dust mask.

Eye Protection: Chemical goggles or safety glasses with side shields recommended.

Ventilation: Use product outdoors or in a well-ventilated area.

SECTION 9 ..... PHYSICAL AND CHEMICAL PROPERTIES.....

pH: 7.5 – 8.5.

Boiling Point: N/A.

% Volatile: Not Available.

Melting Point: Not Available.

Evaporation Rate: N/A.

Freezing Point: N/A.

Solubility in Water: Soluble.

Bulk Density: 0.45 – 0.55 g/mL.

Vapor Pressure @ 25°C: N/A.

Appearance and Odor: Tan-colored granules, no discernable odor.

SECTION 10 ..... STABILITY AND REACTIVITY .....

Stability: Stable.

Conditions to Avoid: None known.

Incompatibility: None known.

Hazardous Decomposition Products: None known.

SECTION 11 ..... TOXICOLOGICAL INFORMATION.....

TOXICITY DATA:

Rat: Oral LD<sub>50</sub> > 5000 mg/kg.

Rat: Dermal LD<sub>50</sub> > 6000 mg/kg.

Rat: Inhalation 4 hr. LC<sub>50</sub> > 2 mg/L (max. achievable air concentration was 2.16 mg/L).

Rabbit: Dermal Irritation: Non-irritant.

Rabbit: Eye Irritation: Non-irritant.

No known incidents of hypersensitivity.

SECTION 12 ..... ECOLOGICAL INFORMATION.....

ECOTOXICITY DATA:

Quail: Oral LD<sub>50</sub> > 4000 mg/kg.

Quail: Dietary LC<sub>50</sub> > 100,000 ppm.

Trout: LC<sub>50</sub> > 3270 mg/L; NOEC = 378 mg/L.

Cladoceran (*Daphnia*): EC<sub>50</sub> = 1173 mg/L; NOEC = 325 mg/L.

Honeybee: No observed toxicity at 39 µg a.i. per bee.

Alga (*Selenastrum*): EC<sub>50</sub> = 182 mg/L; NOEC = 120 mg/L.

Do not apply to water, or to areas where surface water is present or to intertidal areas.

SECTION 13 ..... DISPOSAL CONSIDERATIONS.....

Reseal in original container and dispose of in accordance with all federal, state and local laws.

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SECTION 14 ..... TRANSPORT INFORMATION .....

DOT Proper Shipping Name: Not subject to DOT Hazardous Material regulations as found in 49 CFR Part 171-180.

DOT Hazard Classification: N/A.

DOT Labeling Requirements: N/A.

SECTION 15 ..... REGULATORY INFORMATION .....

Hazardous Substance: N/A.

Reportable Quantity: N/A.

SECTION 16 ..... OTHER INFORMATION .....

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Prepared by: EDEN Bioscience Corporation.....Effective Date: October 17, 2003