1. IDENTIFICATION

Product Identifier Dihydrostreptomycin Sulfate
Product Number D003
Distributor Name TOKU-E Company
Distributor Address 715 W Orchard Dr. Suite 3
Bellingham, WA 98225
Phone Number (360)734-1789
Emergency Phone Number (International) +1 (352) 353-3500
Emergency Phone Number (US Only) 1 (800) 535-5053
Safety Data Sheet Issued by TOKU-E USA
CAS-Number [5490-27-7]
EC/REACH Number [226-823-7]
Recommended Use Dihydrostreptomycin sulfate is a freely soluble aminoglycoside antibiotic similar in structure to streptomycin.
Restrictions of Use Not for human or animal use

2. HAZARD(S) IDENTIFICATION

GHS Classification Acute Toxicity (Category 4)
Reproductive toxicity (Category 1A)

GHS Label Elements, Including

Hazard Statements
H302+H312+ Harmful if swallowed, in contact with skin or if inhaled
H332
H360 May damage fertility or the unborn child

Precautionary Statements
P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264 Wash hands/skin thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
Hazards not otherwise classified (HNOC) by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS
Synonym(s)  D-Streptamine, Didromycin, Dihydrostreptomycin sesquisulfate, Panstreptin
Formula  \( \text{C}_{21}\text{H}_{41}\text{N}_{7}\text{O}_{12}\text{S}_3/2\text{H}_2\text{SO}_4 \)
Molecular Weight  730.74
CAS-Number  [5490-27-7]
EC/REACH Number  [226-823-7]
Hazardous Components  Dihydrostreptomycin Sulfate
Acute Toxicity (Category 4)
Reproductive toxicity (Category 1A)

4. FIRST-AID MEASURES
General Advice  Consult a doctor/physician if exposed - additional medical care may be required. Show this Safety Data Sheet to the medical provider.
If Inhaled  If inhaled, move to fresh air. If not breathing, give artificial respiration and immediately call local emergency telephone number.
In Case of Skin Contact  Wash skin thoroughly with soap and water.
In Case of Eye Contact  Flush eye with water. After initial flush, remove any contact lenses and continue flushing for at least 15 minutes.
If Swallowed  Rinse mouth with water. Immediately call a doctor, physician, or poison control center. Never give anything by mouth to an unconscious person.
Specific Treatment  Please see Section 2 precautionary statements and/or Section 11.

5. FIRE-FIGHTING MEASURES
Suitable Extinguishing Media  Water spray, alcohol-resistant foam, dry chemical, carbon dioxide
Special Protective Equipment for Firefighters  Wear self-contained breathing apparatus
Hazardous Combustion Products  Formed under fire conditions: carbon, nitrogen, and sulfur oxides

6. ACCIDENTAL RELEASE MEASURES
General  Evacuate personnel to a safe location. Use appropriate personal protective equipment while in contact with product. Avoid dust formation. Ensure adequate ventilation.
Personal Precautions  Prevent contamination of skin, eyes and clothing with appropriate protective equipment (Section 8). Wear respiratory protection.
Environmental Precautions  Recover waste, if possible, and place in suitable closed container for licensed disposal. Prevent spillage - do not let product enter drains.
7. **HANDLING AND STORAGE**
   **Precautions for Safe Handling**
   Wear appropriate protective clothing/gear to prevent contact with skin and eyes. Provide exhaust ventilation or respiratory protection in areas where dust is formed.
   **Precautions for Safe Storage**
   Store in a tightly closed container. Protect from humidity.
   Recommended storage temperature: 2-8°C
   **Incompatibilities**
   No Data Available

8. **EXPOSURE CONTROLS/ PERSONAL PROTECTION**
   Contains no substance/substances with occupational exposure limit values
   - **OSHA Permissible Exposure Limits**
     No Data Available
   - **NIOSH Recommended Exposure Limits**
     No Data Available
   - **ACGIH Threshold Limit Values**
     No Data Available
   **PPE: Respiratory protection**
   Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
   **PPE: Hand Protection**
   Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands
   **PPE: Eye Protection**
   Use a face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)
   **PPE: Skin and Body Protection**
   Handle with gloves. Wear protective clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place. When deemed needed according to the concentration and amount of this product, use a complete body suit

9. **PHYSICAL/CHEMICAL PROPERTIES**
   - **Appearance**
     White to off-white powder
   - **Lower Flammability/Explosion Limit**
     No Data Available
   - **Upper Flammability/Explosion Limit**
     No Data Available
10. STABILITY AND REACTIVITY

Chemical Stability Stable under recommended storage conditions
Possibility of Hazardous Reactions No Data Available
Conditions to Avoid No Data Available
Materials to Avoid Strong oxidizing agents
Hazardous Decomposition Products Formed under fire conditions: carbon, nitrogen, and sulfur oxides

11. TOXICOLOGICAL INFORMATION

Oral LD$_{50}$ No Data Available
Inhalation LC$_{50}$ No Data Available
Dermal LD$_{50}$ No Data Available
Intraperitoneal LD$_{50}$ No Data Available
Intravenous LD$_{50}$ Mouse: 186 mg/kg
Subcutaneous LD$_{50}$ Mouse: 841 mg/kg
Skin Corrosion/Irritation No Data Available
Serious Eye Damage/ Eye Irritation No Data Available
Respiratory or Skin Sensitization No Data Available
Germ Cell Mutagenicity No Data Available
Carcinogenicity This substance has not been identified as a potential carcinogen within the National Toxicology Program Report on Carcinogens or within the International Agency for Research on Cancer Monograph.

Reproductive Toxicity No Data Available
Specific Target Organ Toxicity: Single Exposure (GHS)  No Data Available
Specific Target Organ Toxicity: Repeated Exposure (GHS)  No Data Available
Aspiration Hazard  No Data Available
Potential Heath Effects  See Section 2, Hazard(s) Identification
Signs and Symptoms of Exposure  To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated
Synergistic Effects  No Data Available
Additional Information  None

12. ECOLOGICAL INFORMATION
Toxicity  No Data Available
Persistence and Degradability  No Data Available
Bio accumulative Potential  No Data Available
Mobility in Soil  No Data Available
PBT and vPvB Assessment  No Data Available

In the absence of complete ecological information, treat product as environmentally hazardous. Use proper storage, handling, and disposal to prevent unintentional release into the environment.

13. DISPOSAL CONCENTRATIONS
Product  Dispose of product through a licensed disposal company.
Contaminated Packaging  Dispose of as unused product.

14. TRANSPORTATION INFORMATION
DOT (US)  Not a Dangerous Good
IMDG  Not a Dangerous Good
IATA  Not a Dangerous Good

15. REGULATORY INFORMATION
SARA 302 Components  No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components  No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.
SARA 311/312 Hazards  No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 311/312
New Jersey Right to Know  No components are subject to the New Jersey Right to Know Act
California Prop. 65 Components  This product does not contain any chemicals
known to the State of California to cause birth defects, cancer, or any other reproductive harm

EU Information
SDS in accordance with REACH 1907/2006
EC/ REACH Number [226-823-7]
CAS-Number [5490-27-7]
Name: Dihydrostreptomycin Sulfate
Envisaged Registration Deadline: 30/11/2010
See GHS Information under Section 2, Hazard Identification

16. OTHER INFORMATION
Revision Date: 2016-08-16

HMIS Rating
Health Hazard 2
Chronic Health Hazard Y
Flammability 0
Physical Hazard 0

NFPA Rating
Health Hazard 2
Fire Hazard 0
Reactivity Hazard 0

This safety data sheet represents TOKU-E Company’s current understanding of the hazards associated with this product. The stated hazard information is based on existing experimental data and is not guaranteed to be all-inclusive. TOKU-E Company strives to maintain current and comprehensive safety information but recognizes that this safety data sheet may require revision as new information becomes available. TOKU-E Company shall not be held liable for damage or injury resulting from contact, handling, or storage of this product.