national diagnostics

Conforms to regulation (EC) no. EU 453/2010

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Dextran Sulfate

Product Number: EC-877

1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against Investigational research by professional users

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer National Diagnostics 305 Patton Drive Atlanta, GA 30036 (404) 699-2121 (800) 526-3867 info@nationaldiagnostics.com

1.4 Emergency Telephone Number

ChemTel Inc.

Contract number MIS8894340 1-800 255-3924 (United States, Canada, Puerto Rico & US Virgin Islands) 01-800-099-0731 (Mexico) 400-120-0751 (China) 000-800-100-4086 (India) 1-300-954-583 (Australia) 0-800-591-6042 (Brazil) +1-813-255-3924 (All other regions)

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Not a hazardous substance or mixture according to regulation (EC) No. 1272/2008.

2.2 Label Elements

This product has no labeling elements associated with EC directives or respective national laws.

2.3 Other Hazards

None found.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Chemical Names/Description

Dextran, hydrogen sulfate, sodium salt

Chemical Formula

Unknown/not applicable.

Component List

| Component | % Comp. | CAS # | EC # |
|-----------------|---------|-----------|------|
| Dextran Sulfate | 100 | 9011-18-1 | |

SECTION 4 - FIRST AID MEASURES

4.1 Description of First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation

May include increased heart rate.

Ingestion

May include increased heart rate.

Skin

Unknown. May include moderate to severe erythema (redness) and moderate edema (raised skin), increased heart rate.

Eyes

Not available

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed Unknown/not applicable

entrie in the applicable

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Water spray, dry chemical, alcohol-resistant foam, or carbon dioxide.

5.2 Special Hazards Arising from the Substance/Mixture

Hazardous Combustion Products

Carbon monoxide, carbon dioxide, sulfur oxides.

Hazardous Decomposition Products

Oxides of carbon and sulfur.

Hazardous Polymerization

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

5.3 Advice for Firefighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

5.4 Further Information

No data available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

Wear appropriate protective equipment as specified in Section 8.

6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

6.3 Methods and Materials for Containment and Cleaning Up

Sweep up. Place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

6.4 References to Other Sections

For disposal information, see Section 13. For protective clothing and equipment, see Section 8.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

7.2 Conditions for Safe Storage (including any incompatibles)

Keep in a tightly closed container, stored in a cooled, dry, ventilated area.

Incompatibles

Not available.

7.3 Specific End Uses

Investigational research by professional users

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

8.1 Control Parameters ACGIH Threshold Limit Value (TLV): none established OSHA Permissible Exposure Limit (PEL): None established

8.2 Exposure Controls

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

Respiratory Protection

For conditions of use where exposure to the dust or mist is apparent, a full-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical & Chemical Properties

| a. Appearance | Off-white powder | b. Odor | Odorless |
|---|------------------|--|--------------------|
| c. Odor Threshold | | d. pH | 7 |
| e. Melting/Freezing Point (^o C) | 0 | f. Boiling point (^o C) | N.A. |
| g. Flash Point (^o C) | N.A. | h. Evaporation Rate | N.A. |
| i. Flammability | N.A. | j. Upper/Lower Flammability or Explosive Limits | N.A. |
| k. Vapor Pressure | N.A. | I. Vapor Density (Air = 1) | N.A. |
| m. Relative Density | N.A. | n. Water Solubility | Soluble |
| o. Partition Coefficient n-octanol/water | | p. Autoignition Temperature (^o C) | N.A. |
| q. Decomposition Temperature (^o C) | | r. Viscosity | No data available. |
| s. Explosive Properties | N.A. | t. Oxidizing Properties | N.A. |

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical Stability

Stable under normal conditions of storage and use.

10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

10.4 Conditions to Avoid

Not available.

10.5 Incompatible Materials

Not available.

10.6 Hazardous Decomposition Products

Oxides of carbon and sulfur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product LD50 Values

Oral Rat LD50 (mg/kg) 20600

Dermal Rabbit LD50 (mg/kg) Not available

Component Cancer List Status

| | NTP Carcinogen | | |
|-----------------|----------------|-------------|---------------|
| | Known | Anticipated | IARC Category |
| Dextran Sulfate | No | No | none |

Ingestion

Not available

Skin

Not available

Eyes

Not available

Carcinogenicity

Not listed by NTP or IARC as a known or anticipated carcinogen.

Mutagenicity

Not available

Reproductive Toxicity

Not available

Teratogenic Effects

Not available

Routes of Entry

Inhalation, skin, ingestion.

Target Organ Statement

Not available

SECTION 12 - ECOLOGICAL INFOMATION 12.1 Toxicity

| | Vertebrates | Invertebrates | Algae | Microorganisms |
|--|-------------|---------------|---------|----------------|
| Aquatic Toxicity (ppm unless otherwise noted) | No data | No data | No data | No data |
| | Birds | Arthropods | Plants | Microorganisms |
| Terrestrial Environment Toxicity (ppm unless otherwise noted) | No data | No data | No data | No data |

12.2 Persistence and Degradability

No data

12.3 Bioaccumulative Potential

No data

12.4 Mobility in Soil

No data

12.5 Results of PBT and vPvB Assessment

No data

12.6 Other Adverse Effects

None

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

SECTION 14 - TRANSPORT INFORMATION

| | ADR/RID | IATA | IMO | DOT |
|----------------------------|---------------|---------------|---------------|---------------|
| 14.1 UN Number | N.A. | N.A. | N.A. | N.A. |
| 14.2 Shipping Name | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3 Hazard Class | N.A. | N.A. | N.A. | N.A. |
| 14.4 Packing Group | N.A. | N.A. | N.A. | N.A. |
| 14.5 Environmental Hazards | N.A. | N.A. | N.A. | N.A. |
| 14.6 Special Precautions | N.A. | N.A. | N.A. | N.A. |

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture United States

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

| SARA 311/312 Hazard Categories | F ine | Desserves | Desetivity | A a v t a | Chasais |
|--------------------------------|--------------|-----------|------------|------------------|---------|
| Component | Fire | Pressure | Reactivity | Acute | Chronic |
| Dextran Sulfate | N.A | N.A | N.A | N.A. | N.A |

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 16 - OTHER INFORMATION

Revisional Updates

4/26/2019 - Updated Section 1.4 5/29/2015 - Updated Sections 2.1 and 3.1 4/16/2013 - Released Version 1.0

NFPA Codes

Health N.A. Flammability N.A. Reactivity N.A.

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