Mar. 15, 2018

SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

Product identifier;

Product Name: RDE(II)"SEIKEN"

Product Code:

Product Code	Contents		
370013	RDE(II)	"SEIKEN"	$20 { m mL}$ equivalent × 5 ${ m vials}$
	(Lyophilized Product)		

 \cdot Use of the chemical and restrictions on use; Research use only

 Supplier's details; Company Name: DENKA SEIKEN CO., LTD. Address: 1359-1, Kagamida, Kigoshi, Gosen-shi, Niigata, 959-1834, Japan

Division: Quality Assurance Division

Telephone: +81-250-43-4136 Facsimile: +81- 250-43-3789

• Emergency telephone number; +81-250-43-4136

2. Hazards identification

 Classification of the substance/mixture; GHS Classification Physical hazards: Not Classified Health hazards: Repr. 1B - H360 Environmental hazards: Not Classified

 $\boldsymbol{\cdot}$ Label elements;

Pictograms:



Signal word: Danger

Hazard statements:

May damage fertility or the unborn child

Precautionary statements:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local regulations.

• Other hazards: None

3. Composition/information on ingredients

 \cdot Chemical characterization; Mixture

Ingredients	CAS Registry No.	Concentration
Kanamycin sulphate	25389-94-0	less than 3.0 w/w%

4. First-aid measures

- Description of necessary measures;
 - Inhalation: Move person into fresh air. Seek medical advice if experiencing difficulty breathing.

Skin Contact: Wash skin thoroughly with soap and water. If skin irritation or rash occurs, get medical advice/attention. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

Eyes Contact: Rinse eyes immediately with plenty of water for several minutes with eyelids open. Remove any contact lenses, if present and easy to do. Continue rinsing. Seek medical advice if irritation persists.

Ingestion: Rinse mouth thoroughly with plenty of water and seek medical advice immediately. Do not induce vomiting without medical advice.

· Most important symptoms/effects, acute and delayed; No information available

- · Protection of first-aiders; Use personal protective equipment as required
- · Indication of immediate medical attention and special treatment; No information available

5. Fire-fighting measures

- $\boldsymbol{\cdot}$ Suitable extinguishing media; Water spray, Dry powder, Dry sand powder and so on
- \cdot Unsuitable extinguishing media; No information available
- Specific hazard arising from the substance or mixture; No information available
- Special protective equipment and precautions for fire-fighters; Wear suitable protective clothing. Fight fire from safe distance or protective location. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke.

• Further information; No information available

6. Accidental release measures

• Personal precautions, protective equipment and emergency procedures; Wear protective clothing as described in Section 8 of this safety data sheet.

• Environmental precautions;

Prevent further leakage or spillage if safe to do so.

Do not let product enter drains.

Discharge into the environment must be avoided.

- Methods and materials for containment and cleaning up; Contain and absorb spillage with sand, earth or other non-combustible material.
- Reference to other sections; For waste disposal, see section 13

7. Handling and storage

• Precautions for safe handling;

Wear protective clothing as described in Section 8 of this safety data sheet. Do not get in eyes, on skin, or on clothing. Minimize mist generation and accumulation.

Advice on general occupational hygiene

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Take off immediately all contaminated clothing. Contaminated work clothing should not be allowed out of the workplace.

• Condition for safe storage, including any incompatibilities; Store in original containers at 2-10 °C protected from light.

8. Exposure controls/personal protection

 $\boldsymbol{\cdot}$ Control parameters;

Occupational exposure limit values and Biological limit values: No information available • Exposure controls;

Appropriate engineering controls: Provide adequate ventilation.

Provide eyewash station and safety shower.

Personal protection: Wear appropriate clothing to prevent any possibility of skin contact. Eye/face protection: Chemical splash goggles

Hand protection: Wear protective gloves

Other skin and body protection: Impervious working clothes

Hygiene measures: Do not smoke in work area. Wash hands at the end of each work shift

and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Respiratory protection; Wear appropriate protective mask if there is a risk of vapour formation.

9. Physical and chemical properties

Appearance; Physical state: Solid

Color: Light brown

- \cdot Odor; Odorless
- \cdot Odor threshold; No data available
- pH; No data available
- Evaporation rate; No data available
- Upper/lower flammability or explosive limits; No data available
- Vapor density; No data available
- Relative density; No data available
- Solubility(ies); Soluble in water
- · Auto-ignition temperature; No data available
- · Decomposition temperature; No data available
- Viscosity; No data available
- Other properties; No data available because of mixture

10. Stability and reactivity

- · Reactivity; Stable under recommended storage conditions
- Chemical stability; Stable at 2 10 °C
- Possibility of hazardous reactions;
 - Hazardous reaction does not occur under normal condition.
- Condition to avoid; Exposure to high temperature, direct light, flames, shock or vibration.
- Incompatible materials; Materials to avoid: No information available
- · Hazardous decomposition products; No information available

11. Toxicological information

- Health hazards: Repr. 1B H360 (calculated)
- Information on toxicological effects; Acute toxicity-oral: <Notes (oral LD₅₀)> Not available Acute toxicity-dermal: <Notes (dermal LD₅₀)> Not available Acute toxicity-inhalation: <Notes (inhalation LC₅₀)> Not available Skin corrosion/irritation: <Animal data> Not available Serious eye damage/irritation: Not available Respiratory sensitization: Not available Skin sensitization: Not available Germ cell mutagenicity: <Genotoxicity- in vitro> Not available Carcinogenicity: Not available Reproductive toxicity: May damage fertility or the unborn child (calculated)

Specific target organ toxicity-single exposure: Not available Specific target organ toxicity-repeated exposure: Not available Aspiration hazard: Not available

12. Ecological information

- Environmental hazards; Not Classified
- Ecotoxicity;

Acute toxicity-fish: Not available Acute toxicity-aquatic invertebrates: Not available Acute toxicity-aquatic plants: Not available Chronic toxicity-fish early life stage: Not available Short term toxicity-embryo and sac fry stages: Not available Chronic toxicity-aquatic invertebrates: Not available

- · Persistence and degradability; No data available
- Bioaccumulative potential; Bioaccumulative potential: No data available Partition coefficient: Not available
- Mobility in soil; No information available
- Results of PBT and vPvB assessment; This product does not contain any substances classified as PBT or vPvB.
- \cdot Other adverse effects; Not known

13. Disposal considerations

- Waste residues; Waste disposal must be in accordance with appropriate Federal, State, and local regulations. Do not flush to surface water or sanitary sewer system.
- Contaminated packaging; Dispose of as unused product.

14. Transport information

This product is considered to be non-hazardous for transport in quantities.

- \cdot UN number; Not applicable
- UN proper shipping name; Not applicable
- Transport hazard class; Not applicable
- Packing group; Not applicable
- Environmental hazard; Marine pollutant, Not applicable
- Transport in bulk; Not applicable
- Special precaution; Not applicable

15. Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture;

EU legislation (EC) No 1907/2006 (REACH). (EC) No 1272/2008 (CLP).

• Chemical safety assessment; No chemical safety assessment has been carried out.

16. Other information

- Information Source and Reference; This SDS is in compliance with The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and International Standard ISO 11014.
- Issuing Date; Mar. 15, 2018
- Revision Number and Date; 08, Mar. 15, 2018



• Others; These products are intended for research use only. Not for use in human.

The information herein is believed to be correct as of the data given, and excludes any guarantee related with final use given to the products, the recipient being the last responsible for observing the laws applicable in each case.

All materials may present unknown hazards and should be used with caution.

This SDS may be revised based on the newest knowledge.