

DNA Ligase T4 SDS

Date of Issue: January 12, 2023

Revision Date: N/A

Version Number: **1.0**

SECTION 1: IDENTIFICATION**1.1 Product Identifier**

Product Form: Mixture

Product Name: DNA Ligase T4

Product Codes: MB-106-0100/MB-106-0500

1.2 Intended Use of the Product

For research use only

1.3 Name, Address, and telephone of the Responsible Party

Company:

Rockland Immunochemicals, Inc.

321 Jones Boulevard

Pottstown, PA 19464

(800) 656-7625

1.4 Emergency Telephone Number

CHEMTREC: 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

GHS-US Classification: Not classified

2.2 Label Elements

GHS-US Labeling:

Hazard Pictogram: N/A

Signal Word: N/A

Hazard Statements: N/A

Precautionary Statements: N/A

2.3 Other Hazards

N/A

2.4 Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substance**

Not applicable

3.2 Mixture

Contains no hazardous ingredients at levels requiring disclosure.

SECTION 4: FIRST AID MEASURES**4.1 Description of First Aid Measures**

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

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After Inhalation: When symptoms occur, go into open air, and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

After Skin Contact: Immediately remove any contaminated clothing.

After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

General: Not expected to present a significant hazard under anticipated conditions of normal use.

After Inhalation: None known.

After Skin Contact: None known.

After Eye Contact: None known.

After Ingestion: None known.

Chronic Symptoms: None known.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5. FIRE-FIGHTING MEASURES**5.1 Extinguishing Media**

Suitable Extinguishing Media: Use carbon dioxide, dry chemical, or water spray.

Unsuitable Extinguishing Media: For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special Hazards Arising from the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3 Advice for Firefighters

Precautionary Measures - Fire: Exercise caution when fighting any chemical fire. Under fire conditions closed containers may rupture or explode.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Remove containers from fire area if this can be done without risk. Do not breathe fumes from fires or vapors from decomposition.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other Information: Do not allow run-off from firefighting to enter drains or water courses.

SECTION 6 ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

General Measures: Normal ventilation is adequate.

6.1.1 For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

6.1.2 For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2 Environmental Precautions

Do not let product enter drains.

6.3 Methods and Material for Containment and Cleaning Up

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For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4 Reference to Other Sections

See Heading 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Additional Hazards When Processed: None

Precautions for Safe Handling: For precautions see section 2.2. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store vial at -20° C prior to opening.

Incompatible Products: N/A

7.3 Specific End Use(s)

For research use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Contains no substances with occupational exposure limit.

8.2 Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: The use of personal protective equipment may be necessary as conditions warrant. Gloves. Protective clothing. Protective goggles.



Materials for Protective Clothing: Wear appropriate protective gloves and clothing to prevent skin exposure.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Safety glasses with side shields or safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Not required under normal conditions.

Environmental Exposure Controls: No special environmental precautions required.

Other Information: When using, do not eat, drink, or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State: Liquid

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Appearance: Colorless

Odor: Mild

Odor Threshold: No data available

pH: No data available

Evaporation Rate: No data available

Melting Point: No data available

Freezing Point: No data available

Boiling Point: No data available

Flash Point: No data available

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

Flammability (solid, gas): Not flammable

Lower Flammable Limit: No data available

Upper Flammable Limit: No data available

Vapor Pressure: No data available

Relative Vapor Density at 20°C: No data available

Relative Density: No data available

Specific Gravity: No data available

Solubility: Water: fully miscible

Partition Coefficient: N-Octanol/Water: No data available

Viscosity: No data available

9.2 Other Information

No additional information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Hazardous reactions will not occur under normal conditions.

10.2 Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

10.3 Possibility of Hazardous Reactions

Can react briskly with oxidizers - danger of explosion.

10.4 Conditions to Avoid

Incompatible materials. Ignition sources. Heat.

10.5 Incompatible Materials

No information available

10.6 Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide(CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Information on likely routes of exposure:

Inhalation Avoid breathing vapors or mists. May cause irritation of respiratory tract.

Eye contact Redness. May cause slight irritation.

Skin contact Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.

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Ingestion May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting.

Acute toxicity: No information available.

Chronic Toxicity Irritation: No information available.

Sensitization: No information available.

Carcinogenicity: No information available.

Mutagenic effects: No information available.

Reproductive effects: No information available.

Developmental effects: No information available.

Teratogenicity: No information available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology – General: Not Classified.

12.2 Persistence and Degradability

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| Persistence and Degradability | Not established. |
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12.3 Bioaccumulative Potential

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|---------------------------|------------------|
| Bioaccumulative Potential | Not established. |
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12.4 Mobility in Soil

No additional information available.

12.5 Other Adverse Effects

Other information: N/A

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: None

Ecology – Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored and can vary based on several variables that may or may not have been known at the time the SDS was issued.

14.1 In Accordance with DOT

Not regulated for transport.

14.2 In Accordance with IMDG

Not regulated for transport.

14.3 In Accordance with IATA

Not regulated for transport.

14.4 In Accordance with TDG

Not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

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OSHA Hazards: None

SARA 302 Components: SARA 302: No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title II, Section 313.

SARA 311/312 Hazards: See section 2 for more information

15.2 US State Regulations

Not applicable

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision: 01/12/2023

Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.