

Material Safety Data Sheet

Version GHS 5.1
Revision date : 01/16/2018

1 . PRODUCT & COMPANY IDENTIFICATION

Product Name : T4 DNA Ligase, 1 units/ul
Product Cat No : T2622
CAS No : None
Manufacturer/Supplier : GenDEPOT LLC
PO Box 454
Barker, Tx 77413
Emergency Phone : 866.417.0078
Fax : 281-579-6876

2 . HAZARD IDENTIFICATION

Emergency Overview

GHS Classification

No hazards are expected from using this product.

This product is not regulated under the United Nations Globally Harmonized System for the Classification and Labeling of Hazardous Chemicals (GHS) 2006 version; European Directive 67/648/EEC; and U.S OSHA 29 CFR 1910.1200 Hazard Communication Standard. Although a (M)SDS is not required, this document is offered as a service to customers who handle or might come in contact with this product and would like guidance.

GHS Label elements, including precautionary statements

Pictogram none

Signal word none

Hazard statement(s) none

Precautionary statement(s) none

Potential Health Effects

Inhalation : May be harmful if inhaled, Causes respiratory tract irritation
Skin : May be harmful if absorbed through skin. Cause skin irritation
Eyes : Causes eye irritation
Ingestion : May be harmful if swallowed.

3 . COMPOSITION/INFORMATION ON INGREDIENT

Synonyms : Mixture of reverse transcriptase enzymes

Component	Classification	Concentration
Glycerol		
CAS No	56-81-5	15-40%
EC No	200-664-3	

No ingredients are hazardous according to OSHA criteria.
No components need to be disclosed according to the applicable regulations.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Occupational exposure limits, if available, are listed in Section 8.

4 . FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move person into fresh air.
If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water.
Consult a physician.

In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed : Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

5 . FIREFIGHTING MEASURES

Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products: Nature of decomposition products not known.

Further information: Use water spray to cool unopened containers.

6 . ACCIDENTAL RELEASE MEASURES

Personal precaution: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precaution: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for contaminant and cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7 . HANDLING AND STORAGE

Precaution for safe handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Condition for safe storage: Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20 °C

8 . EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

USA.ACGIH Threshold Limit Values (TLV) , TWA 10 mg/m³
 USA. Occupational Exposure Limits (OSHA),
 Table Z-1 Limits for Air Contaminants TWA 5 mg/m³
 USA. Occupational Exposure Limits (OSHA),
 Table Z-1 Limits for Air Contaminants TWA 15 mg/m³

Personal protective equipment: .

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Complete suit protecting against chemicals.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Appearance:

Form liquid
 Color

Safety data:

pH	7.0– 8.0
Melting point	no data available
Freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Auto-ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapor density	no data available
Odor	odorless
Odor threshold	no data available
Evaporation rate	no data available

10 . STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available.

Condition to avoid

no data available.

Materials to avoid

No data available.

Hazardous decomposition products

no data available

11 . TOXICOLOGICAL INFORMATON

Acute Toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Mutagenicity (Germ cell mutagenicity)

no data available

Carcinogenicity

no data available

IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

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 health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation

Synergistic effects

no data available

Additional information

RTECS : not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Kidney - Irregularities - Based on Human Evidence
 Eyes - Eye disease - Based on Human Evidence
 Kidney - Irregularities - Based on Human Evidence (Glycerol)
 Liver - Irregularities - Based on Human Evidence
 (Magnesium chloride hexahydrate)
 Liver - Irregularities - Based on Human Evidence

12 . ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effect

no data available

13 . DISPOSAL CONSIDERATIONS

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14 . TRANSPORT INFORMATION

DOT(US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15 . REGULATORY INFORMATION

United States

HCS Classification : Non Hazard

TSCA 8(a) IUR exempt/Partial exemption : not determined
 United States Inventory (TSCA 8b) : not determined
 SARA 302/304/311/312 extremely hazardous substances :
 No products were found
 SARA 302/304 emergency planning and notification:
 No products were found
 SARA 302/304/311/312 hazardous chemicals : No SARA hazard
 SARA 311/312 Hazard Identification :
 Acute Health Hazard, Chronic Health Hazard

Clean Air Act Section 112(b) : not listed
 Hazardous air pollutants (HAPs)

Clean Air Act Section 602 : not listed
 Class I substances

Clean Air Act Section 602 : not listed
 Class II substances

DEA List I Chemicals : not listed
 (Precursor chemicals)

DEA List II Chemicals : not listed
 (Essential chemicals)

States Regulation

Massachusetts : The following components are listed
 Glycerol CAS No 56-81-5

New York : The following components are listed - None

New Jersey : The following components are listed
 Glycerol CAS No 56-81-5
 Water CAS No 7732-18-5

Pennsylvania : The following components are listed
 Glycerol CAS No 56-81-5
 Water CAS No 7732-18-5

California Prop. 65 Components :
 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

International Regulation

Australia inventory (AICS): Not determined.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: Not determined.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan inventory (CSNN): Not determined.

16 . OTHER INFORMATION

HIMS Rating:

Health hazard : 0
 Chronic Health Hazard : *
 Flammability : 0
 Physical hazards: 0

NFPA Rating:

Health Hazard: 0
 Fire: 0
 Reactivity Hazard: 0

This compound is sold only for research use by personnel familiar chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and no rubbing eyes with working in the laboratory.

This solution is sold only in microliter quantities for use in life sciences research. No other use is intended. And any other use may involve substantive hazards.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish or legally valid contractual relationship. GenDEPOT LLC, shall not be held liable for any damage resulting from handling of or from with above product. The burden of safe use of this material rests entirely with the user.

Since the conditions of handling, storage and disposal of this material are beyond our control, it is the responsibility of the user to determine whether the material is fit for a particular purpose and/or suitable for the user's method of use or application, and to determine safe conditions for use of the material, and to assume full responsibility for loss, injury and expense arising out of or in connection with the use of material. NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING THE MATERIAL DESCRIBED HEREIN SHALL BE CREATED BY OR INFERRED FROM ANY STATEMENT OR OMISSION FROM THIS MSDS.

Various government agencies and local authorities may have general or specific regulations applicable to the material which may not be covered in this MSDS. It is sole responsibility of the user to examine and confirm for its full compliance with any such regulations.

When the revision of this MSDS is received, please dispose of the old one.

Department issuing MSDS:
 GenDEPOT LLC
 Safety Department