

## Material Safety Data Sheet

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### Section 1-Product Information

Product name	T4 DNA Ligase
Product Cat. No.	E00016

### Section 2-Composition / Information on Ingredients

Substance/Preparation:	Preparation
Ingredient Name	T4 DNA Ligase
CAS No.	NA

### Section 3- Hazards Identification

Emergency Overview	
Irritant	Irritating to eyes, respiratory system and skin
Target Organ(s)	Kidneys
HMIS RATING	HEALTH: 2* FLAMMABILITY: 0 REACTIVITY: 0
NFPA RATING	HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0

\* Additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

### Section 4- First Aid Measures

First Aid Measures	
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an un conscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Aggravating Conditions	Repeat or prolonged exposure is not known to aggravate medical attention.

### Section 5- Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Extinguishing Media Suitable	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Hazardous thermal (de)composition	These products are carbon (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...)
Special fire-fighting procedures	Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Protection fire-fighting procedures	Be sure to use an approved/certified respirator or equivalent.

## Section 6- Accidental Release Measures

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Personal Precaution(s)	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Small Spill and Leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill and Leak	Use a shovel to put the material into a convenient waste disposal container.

## Section 7-Handling and Storage

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Handling	Avoid inhalation
Storage	Keep below -20°C (-4°F)
Packaging Materials	
Recommended Use	Use original container

## Section 8-Exposure Controls/Personal Protection Equipment

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Engineering Measures	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Hygiene Measures	Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of the day.
Personal Protective equipment	Skin and body: lab coat Eyes: Safety glasses Protective clothing (Pictograms)

## Section 9- Physical and Chemical Properties

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Physical State	Liquid
Color	No color
Flash Point	Not available
Explosive Properties	No

## Section 10- Stability and Reactivity

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Stability	The product is stable.
Conditions to Avoid	Not available
Hazardous Decomposition Products	These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...).

## Section 11- Toxicological Information

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Skin Irritations	Not available
Acute Toxicity	LD50: Not available LC50: Not available
Chronic Toxicity	Repeated and prolonged exposure is not known to aggravate medical condition.
Other Toxic Effects on Humans	Not available
Carcinogenic Effects	Not available
Mutagenic Effects	Not available
Reproduction Toxicity	Not available
Teratogenic Effects	Not available

## Section 12- Ecological Information

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Ecotoxicity	Not available
Toxicity of the Products of Biodegradation	The product itself and its products of degradation are not toxic.

## Section 13- Disposal Considerations

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Methods of disposal; Waste of residues	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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## Section 14- Transport Information

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### DOT

Proper Shipping Name	None
Non-Hazardous for Transport	This substance is considered to be non-hazardous for transport.

### IATA

Non-Hazardous for Air Transport	Non-hazardous for air transport.
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## Section 15- Regulatory Information

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### EU Additional Classification

Symbol of Danger	Xi
Indication of Danger	Irritant
R	36/37/38
Risk Statements	Irritating to eyes, respiratory system and skin.
S	26-36
Safety Statements	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

### US Classification and Label Text

Indication of Danger	Irritant
Risk Statements	Irritating to eyes, respiratory system and skin.
Safety Statements	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

### US Statements

United States Regulatory Information	Target organ(s): Kidneys
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SARA listed: No

## Section 16- Other information

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GenScript corporation MSDS is believed to be correct but only used as a guide for experienced personnel, GenScript shall not be held liable for any damage resulting from the handling or from contact with the above product.