



MATERIAL SAFETY DATA SHEET

According to EC Directive 91/155 EC

Date: 01/05/10

1. Identification of the substance/preparation and of the company/undertaking

1.1 Product Details:

Trade Name: T4 DNA Ligase

Catalogue Number: BIO-27026 500 Units

1.2 Company Details:

Manufacturer/ Supplier: Bioline Ltd
16 The Edge Business Centre
Humber Road
London
NW2 6EW
Tel: +44 (0)20 8830 5300
Fax: +44 (0)20 8452 2822

Further Information Obtainable from:

Technical Services
Details as above

1.3 Emergency Details:

24-Hour Contact in case of emergency:

Vergiftungs-Informationen-Zentrale
Mathilden Strasse 1
79106 Freiburg
GERMANY
Tel: +49 (0) 761 19240.

2. Composition/ Information on Ingredients

2.1 Chemical Characterisation:

Description: Mixture of substances listed below with non-hazardous additions.

Dangerous Components: None

3. Hazards Identification

3.1 Precautionary Statements:

R 36/37/38: Irritating to eyes, respiratory system and skin.

4. First Aid Measures

4.1 After Inhalation:

Remove to fresh air. If irritation persists consult a doctor immediately.

4.2 After Swallowing:

Wash mouth out with water provided the person is conscious. Consult a doctor immediately.

4.3 After Contact with Eyes:

Immediately flush eyes with copious amounts of water for several minutes. Consult a doctor immediately.

4.4 After Contact with Skin:

Immediately wash with soap and copious amounts of water.

5. Fire Fighting Measures

5.1 Suitable Extinguishing Media:

Water spray, CO₂ or dry chemical powder. Large fires should be confronted with water spray or alcohol resistant foam.

5.2 Unusual Fire Hazard:

Emits toxic fumes when on fire.

5.3 Fire Fighting Protective Measures:

Wear protective clothing to prevent contact with the skin and eyes.

Wear self-contained breathing equipment to prevent inhalation of explosive or combustion gasses.

6. Accidental Release Measures

6.1 Personal Precautions:

Ensure ventilation is adequate. Wear rubber gloves.

6.2 Environmental Precautions:

Do not allow to enter the surface or ground water. Do not allow to enter sewers.

6.3 Clean-up Measures:

Use a liquid-binding material (e.g. sand, sawdust, diatomite etc.) to absorb the spillage. Place in closed containers for disposal. Ventilate area well after clean-up procedures have taken place.

7. Handling and Storage

7.1 Handling:

No special measures are required for safe handling of this product.

7.2 Storage:

No special storage requirements for this product.

No special measures for fire and explosive protection required.

Store at -20°C.

8. Exposure Controls/ Personal Protection

8.1 Engineering Measures:

None required, see section 7.

8.2 Ingredients with Limit Values:

CAS NUMBER	CHEMICAL NAME	OEL
56-81-5	Glycerol	10 mg/m ³

8.3 Personal Protection:

Respiratory Protection: None required.

Hand Protection: Gloves should be worn, either rubber or chemical resistant.

Eye Protection: Wearing safety goggles is advised, as is the availability of eye-wash stations.

Skin Protection: Lab coats should be worn during handling. Safety deluge showers should be available.

Hygiene Practices: Avoid contact with skin or eyes. Do not place in mouth.

Do not eat, drink or smoke when handling this product. Upon completion of the use of this product, dispose of protective gloves safely and wash hands thoroughly with soap and water.

9. Physical and Chemical Properties

9.1 Physical Properties

Appearance: Liquid, colourless, odourless.

9.1 Chemical Properties

Concentration: 10 Units/ μ l

Melting point/Melting range: Undetermined

Boiling point/Boiling range: Undetermined

Flash Point: Not Applicable

Autoflammability: Product is not self-igniting

Ignition Temperature: 400°C

Explosive Properties: None

Relative Density: Undetermined

Solubility in Water: Fully Soluble

10. Stability and Reactivity

10.1 Stability

Product is stable under normal handling and storage conditions.

Avoid excess heat, flame and pressure.

Thermal decomposition: None if used under ordinary conditions.

10.2 Reactivity

Dangerous Reactions: Avoid contact with strong oxidising agents, acids and alkali.

Hazardous Decomposition Products: None that are known.

11. Toxicological Information

11.1 Primary Irritant Effect:

R36/37/38: Irritating to eyes, respiratory system and skin.

11.2 Sensitisation Effects:

Via prolonged exposure, a sensitising effect through inhalation is possible.

Via prolonged exposure, a sensitising effect on the skin is possible.

11.3 Further Toxicological Information

This product has no known carcinogenic properties.

This product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations, as issued in the latest version.

12. Ecological Information

12.1 Environmental Effects

Environmental Fate/Stability: Unknown

Effects on Plants or Animals: Unknown

12.2 Water Hazard

This product is slightly hazardous for water.

Do not allow product to come into contact with surface or ground water, and do not allow it to reach the sewage system.

13. Disposal Considerations

13.1 Product Disposal:

This product must not be disposed of with household waste or in any other manner that may lead to it entering the sewage system.

13.2 Packaging Disposal:

Unclean packaging should be disposed of according to official regulations.

14. Transport Information

14.1 Land Transport:

Product does not belong to a hazard class of any international agreements on the transport and packaging of dangerous goods.

14.2 Maritime Transport:

This product is not a marine pollutant.

14.3 Air Transport

Product does not belong to any hazard classification.

15. Regulatory Information

15.1 Labelling According to EU Guidelines

This product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials.

General safety regulations should always be observed when handling chemicals.

16. Other Information

The information provided in this Material Safety Data Sheet (MSDS) is accurate to the best of our present knowledge. However, this shall not constitute a guarantee for any specific product features. All substances and preparations may present unknown hazards and should be used with caution. Bioline shall not be held liable for any damage resulting from the handling of or from contact with the above product. The information supplied in this MSDS shall not establish a legally valid contractual relationship.