

Reviewed on 2008/09/29

1. Product and Company Information

Product Name : Tfi DNA Ligase
 Product Number : E-3111
 Company : Bioneer
 Address : BIONEER CORPORATION
 49-3, Munpyeong-dong, Daedeok-gu, Daejeon 306-220, Korea
 Technical Phone: +82-042-930-8523

2. Composition/Information on Ingredient

Hazardous/Non-hazardous Components

Chemical Name	CAS No.	EINECS No.	Weight %
Glycerol	56-81-5		40~80

3. Hazards Identification.

According to present data no classification and labelling is required according to Directives 67/548/EEC or 1999/45/EC

Classification

Indication of danger

Not hazardous

4. First Aid Measures.

Skin contact : Wash off immediately with plenty of water

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes

Ingestion : Never give anything by mouth to an unconscious person

Inhalation : Move to fresh air

Notes to physician : Treat symptomatically

5. Fire Fighting Measures.

Suitable extinguishing media : Dry chemical

Special protective equipment for firefighters.: Wear self-contained breathing apparatus and protective suit

6. Accidental Release Measures

Personal precautions : Use personal protective equipment

Methods for cleaning up : Soak up with inert absorbent material

7. Handling / Storage

Handling : No special handling advice required

Storage : Keep in properly labelled containers

8. Exposure Controls / Personal Protection

Chemical Name	EU OEL(TWA)	EU OEL(STEL)	EU Skin Notation	Austria OEL(MAK)
Glycerol	-	-	-	-

Chemical Name	Belgium(TWA)	Denmark(TWA)	Finland OEL(TWA)	France OEL(VME)
Glycerol	-	-	-	-

Chemical Name	Germany OEL(TWA)	Ireland(TWA)	Italy OEL(TWA)
Glycerol	-	-	-

Chemical Name	Netherlands OEL(MAC)	Spain OEL(TWA)	United Kingdom
Glycerol	-	-	-

Engineering measures : Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment

Hand protection : Impervious gloves.

Eye protection : Safety glasses with side-shields

Skin and body protection : Lightweight protective clothing.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls : Prevent product from entering drains..

9. Physical / Chemical Properties

General Information

Form : Liquid

Important Health Safety and Environmental Information

Boiling point/range °C No data available °F No data available

Melting point/range °C No data available °F No data available

Flash point °C No data available °F No data available

Autoignition temperature °C No data available °F No data available

Oxidizing properties : No information available

Water solubility : No data available

10. Stability / Reactivity

Stability : Stable under normal conditions.

Materials to avoid : No information available

Hazardous decomposition products : No information available

Polymerization : Hazardous polymerisation does not occur

11. Toxicological Information

Acute toxicity

Chemical Name	LD50(oral, rat/mouse)	LD50(dermal, rat/rabbit)	LC50(inhalation, rat/mouse)
Glycerol	12600mg/kg(rat)	10g/kg(rabbit)	570mg/m3(rat)

Principle Routes of Exposure/

Potential Health effects

Eyes : No information available.

Skin : No information available.

Inhalation : No information available

Ingestion : No information available

Specific effects

Carcinogenic effects : No information available

Mutagenic effects : No information available

Reproductive toxicity : No information available

Sensitization : No information available

Taeget Organ Effects : No information available.

12. Ecological Information

Ecotoxicity effects : No information available.

Mobility : No information available.
Biodegradation : No information available.
Bioaccumulation : No information available.

13. Disposal Considerations

Dispose of in accordance with local regulations.

14. Transport Information

IATA

Proper shipping name : Not classified as dangerous in the meaning of transport regulations
Hazard Class : No information available
Subsidiary Class : No information available
Packing group : No information available
UN-No : No information available

15. Regulatory Information

Korea regulatory information

None of the ingredients listed.

In accordance with local and national regulations According to present data no classification and labelling is required according to Directives 67/548/EEC or 1999/45/EC.

Indication of danger

Not Hazardous

R -phrase(s)

No information available

S -phrase(s)

International Inventories

Chemical Name	EINECS	ELINCS	PICCS	ENCS
Glycerol	Listed		Listed	Listed

Chemical Name	TSCA	CHINA	AICS	KECL
Glycerol	Listed	Listed	Listed	Listed

16. Other Information

This information is based on our present knowledge and shall be used only as a guide. However, this shall not constitute a guarantee for any specific product features. BIONEER is not held liable for any damage resulting from handling or from contact with the above products.

