Reviewed on 2008/09/29

1. Product and Com	pany Information				
Product Name : TOP DNA POLYMERASE					
Product Numbe	er : E-3100				
Company : Bior	neer				
Address : BIONEER CORPORATION					
49-3, Munpyeo	ong-dong, Daedeok-gu, Daej	eon 306-220, Korea			
Technical Phon	e: +82-042-930-8523				
2. Composition/Info	ormation on Ingredient				
Hazardous/Non-haza	ardous Components				
Chemical Name	CAS No.	EINECS No.	Weight %		
Glycerol	56-81-5		40~80		
3. Hazards Identific	cation.				
According to prese	ent data no classification and	labelling is required accordir	ng to Directives 67/548/EEC		
or 1999/45/EC		0	Ŭ		
Classification					
Indication of dan	ger				
Not hazardous	-				
4. First Aid Measur	·es.				
Skin contact : Wa	ash off immediately with plent	ty of water			
Eye contact : Rins	se immediately with plenty of	water, also under the eyelid	s, for at least 15 minutes		
Ingestion : Never	give anything by mouth to ar	n unconscious person			
Inhalation : Move	to fresh air				
Notes to physicia	In: Treat symptomatically				
5. Fire Fighting Me	asures.				
Suitable extinguis	shing media : Dry chemical				
Special protective	e equipment for firefighters	s.: Wear self-contained breat	hing 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..

General Informa	ation				
Form : Liquic	1				
Important Healt	h Safety and Env	vironmental 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 pr	operties : No info	rmation available			
Water solubi	i lity : No data avai	ilable			
0. Stability / Rea	octivity				
	e under normal cor	nditions			
-	bid : No informatio				
		ucts : No information available			
110201 0000 0000	Sinposition press				
Polymerization	Hazardous polyn	nerisation does not occur			
Polymerization	: Hazardous polyn	nerisation does not occur			
· · · · · · · · · · · · · · · · · · ·		nerisation does not occur			
1. Toxicological		nerisation does not occur			
1. Toxicological Acute toxicity			LC50(inhalation, rat/mouse		
1. Toxicological Acute toxicity hemical Name	Information		LC50(inhalation, rat/mouse 570mg/m3(rat)		
1. Toxicological Acute toxicity hemical Name	Information LD50(oral, rat/mo 12600mg/kg(rat)	use) LD50(dermal, rat/rabbit)			
1. Toxicological Acute toxicity Themical Name	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/	use) LD50(dermal, rat/rabbit)			
1. Toxicological Acute toxicity Themical Name Relycerol Principle Route Potential Health	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/	buse) LD50(dermal, rat/rabbit) 10g/kg(rabbit)			
1. Toxicological Acute toxicity Themical Name Blycerol Principle Route Potential Health Eyes : No inf	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/ n effects	buse) LD50(dermal, rat/rabbit) 10g/kg(rabbit)			
1. Toxicological Acute toxicity themical Name slycerol Principle Route Potential Health Eyes : No info Skin : No info	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/ n effects ormation available	use) LD50(dermal, rat/rabbit) 10g/kg(rabbit) 2.			
1. Toxicological Acute toxicity themical Name slycerol Principle Route Potential Health Eyes : No info Skin : No info Inhalation : N	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/ a effects ormation available	use) LD50(dermal, rat/rabbit) 10g/kg(rabbit) 2. ailable			
1. Toxicological Acute toxicity hemical Name lycerol Principle Route Potential Health Eyes : No info Skin : No info Inhalation : N	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/ n effects ormation available ormation available. No information available	use) LD50(dermal, rat/rabbit) 10g/kg(rabbit) 2. ailable			
1. Toxicological Acute toxicity hemical Name lycerol Principle Route Potential Health Eyes : No info Skin : No info Inhalation : N Ingestion : N	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/ n effects ormation available ormation available. No information available	use) LD50(dermal, rat/rabbit) 10g/kg(rabbit) e. ailable ilable			
1. Toxicological Acute toxicity hemical Name lycerol Principle Route Potential Health Eyes : No infor Skin : No infor Inhalation : No Ingestion : No Specific effects Carcinogenio	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/ n effects ormation available ormation available. No information available.	use) LD50(dermal, rat/rabbit) 10g/kg(rabbit) e. ailable ilable			
1. Toxicological Acute toxicity Chemical Name Blycerol Principle Route Potential Health Eyes : No inf Skin : No info Inhalation : N Ingestion : N Specific effects Carcinogenic	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/ a effects ormation available brmation available. No information available to information available.	use) LD50(dermal, rat/rabbit) 10g/kg(rabbit) e. ailable ilable			
1. Toxicological Acute toxicity chemical Name Bycerol Principle Route Potential Health Eyes : No info Skin : No info Inhalation : N Specific effects Carcinogenia Mutagenic effectiv	Information LD50(oral, rat/mo 12600mg/kg(rat) s of Exposure/ a effects ormation available brmation available. No information available to information available.	LD50(dermal, rat/rabbit) 10g/kg(rabbit) 2. . ailable ilable ormation available ation available ormation available ormation available			

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

ΙΑΤΑ

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 isrequired 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 handing or from contact with the above products.