

Reviewed on 2008/09/29

**1. Product and Company Information**

Product Name : MMLV Rtase  
 Product Number : E-3121  
 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.

