

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.05.2012

Version number 1

Revision: 29.05.2012

1 Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

· **Trade name:** Glycid ether 100 for electron microscopy

· **Synonyma**

1,2,3-Propanetriol glycidyl ether
GE 100

· **Article number:** 21045

· **CAS Number:**

90529-77-4

· **EC number:**

292-011-4

1.2. Relevant identified uses of the substance or mixture and uses advised against

· **Application of the substance / the preparation** Laboratory chemicals

1.3. Details of the supplier of the safety data sheet

· **Manufacturer/Supplier:**

SERVA Electrophoresis GmbH

Carl-Benz-Str. 7

D-69115 Heidelberg

Tel.: +49 6221 13840-0

FAX: +49 6221 13840-10

msds.info@serva.de

· **Information department:** Product Safety department Tel.: +49 6221 13840-35

· **1.4. Emergency telephone number:** +49 6131 19240 (university hospital Mainz)

SERVA
Electrophoresis

2 Hazards identification

2.1. Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36/38: Irritating to eyes and skin.

· **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

2.2. Label elements

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms** GHS07

· **Signal word** Warning

· **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P332+P313 If skin irritation occurs: Get medical advice/attention.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.05.2012

Version number 1

Revision: 29.05.2012

Trade name: Glycid ether 100 for electron microscopy

(Contd. of page 1)

- P337+P313 *If eye irritation persists: Get medical advice/attention.*
 P362 *Take off contaminated clothing and wash before reuse.*
- **2.3. Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** PBT - assessment not available.
 - **vPvB:** vPvB - assessment not available.

3 Composition/information on ingredients

- **3.1. Chemical characterization: Substances**
- **CAS No. Description:**
90529-77-4 1,2,3-Propanetriol, glycidyl ethers
- **Identification number(s):**
- **EC number:** 292-011-4
- **Description:**
- **MW:** 306,0

4 First aid measures

- **4.1. Description of first aid measures**
- **General information** Remove contaminated clothing.
- **After inhalation** Supply fresh air and to be sure call for a doctor.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**
Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing.
- **After swallowing** Drink copious amounts of water and provide fresh air. Call for doctor immediately.
- **Information for doctor**
- **4.2. Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3. Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **5.1. Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2. Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Hydrogen chloride (HCl)
Carbon monoxide (CO)
Phosgene gas
(Traces)
- **5.3. Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **6.1. Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2. Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3. Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.05.2012

Version number 1

Revision: 29.05.2012

Trade name: Glycid ether 100 for electron microscopy

(Contd. of page 2)

- **6.4. Reference to other sections**
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **7.1. Precautions for safe handling**
- Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:**
- Do not store together with strong acids, strong alkalis and strong oxidizing agents.
- Store away from metals.
- **Further information about storage conditions:**
- Store in cool, dry conditions in well sealed receptacles.
- Avoid contact with air / oxygen.(formation of peroxide).
- Store receptacle in a well ventilated area.
- **7.3. Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1. Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2. Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.
- **Breathing equipment:**
- Short term filter device:
- Filter A/P2.
- **Protection of hands:**
- Protective gloves.
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
- The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
- Neoprene gloves

(Contd. on page 4)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.05.2012

Version number 1

Revision: 29.05.2012

Trade name: Glycid ether 100 for electron microscopy

(Contd. of page 3)

- **Eye protection:** Tightly sealed goggles.
- **Body protection:** Protective work clothing.

9 Physical and chemical properties

· 9.1. Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour:	Yellowish
Odour:	Odourless

· pH-value (10 g/l) at 20°C: 6 - 8

· Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined

· Flash point: 118 - 135°C

· Ignition temperature: 270°C

· Danger of explosion: Product does not present an explosion hazard.

· Density at 20°C: 1.22 g/cm³

· Solubility in / Miscibility with

Water at 20°C:	20 - 30 g/l
Organic solvents:	Soluble in many organic solvents

· Segregation coefficient (n-octanol/water): -1.94 - -1.78 log POW (calc.)

· Viscosity:

dynamic at 25°C: 100 - 200 mPas

· 9.2. Other information: No further relevant information available.

10 Stability and reactivity

· 10.1. Reactivity: No further relevant informations available

· 10.2. Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· 10.3. Possibility of hazardous reactions

Reacts with acids, alkalis and oxidizing agents

Polymerisation

Reacts with powdered metals

· 10.4. Conditions to avoid: No further relevant information available.

· 10.5. Incompatible materials: No further relevant information available.

· 10.6. Hazardous decomposition products:

Hydrogen chloride (HCl)

Danger of toxic pyrolysis products

Phosgen

Carbon monoxide and carbon dioxide

· Additional information:

This substance is very reactive. In the presence of strong acids and bases or non-ferrous metals hazardous, maybe explosive polymerisation may occur. Hazardous or explosive polymerisation may also occur in case of overheating.

GB

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.05.2012

Version number 1

Revision: 29.05.2012

Trade name: Glycid ether 100 for electron microscopy

(Contd. of page 4)

11 Toxicological information

· **11.1. Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
	LC50/96h	50 - 100 mg/l (Fish)

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

Not thoroughly investigated substance.

AMES-Test: Mutagenic effect

OECD 471

Salmonella typhimurium

12 Ecological information

· **12.1. Toxicity**

· **Aquatic toxicity:**

EC50/48h	2 - 10 mg/l (Daphnia magna)
----------	-----------------------------

· **12.2. Persistence and degradability** No further relevant information available.

· **Other information:** The product is difficultly biodegradable.

· **Behaviour in environmental systems:**

· **12.3. Bioaccumulative potential**

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

· **12.4. Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **12.5. Results of PBT and vPvB assessment**

· **PBT:** PBT - assessment not available.

· **vPvB:** vPvB - assessment not available.

· **12.6. Other adverse effects** No further relevant information available.

13 Disposal considerations

· **13.1. Waste treatment methods**

· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:**

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

GB

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.05.2012

Version number 1

Revision: 29.05.2012

Trade name: Glycid ether 100 for electron microscopy

(Contd. of page 5)

14 Transport information

· 14.1. UN-Number	Void
· ADR, ADN, IMDG, IATA	Void
· 14.2. UN proper shipping name	Void
· ADR, ADN, IMDG, IATA	Void
· 14.3. Transport hazard class(es)	
· ADR, IMDG, IATA	
· Class	Void
· Label	-
· ADN/R Class:	Void
· 14.4. Packing group	Void
· ADR, IMDG, IATA	Void
· 14.5. Environmental hazards:	
· Marine pollutant:	No
· 14.6. Special precautions for user	Not applicable.
· 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	-

15 Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations
- Water hazard class: Water hazard class 1 (Assessment by list): slightly hazardous for water.
- 15.2. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Product safety department
- **Contact:** +49 6221 13840-35
- **Abbreviations and acronyms:**
 PBT: persistent, bioaccumulative, toxic substance (REACH)
 vPvB: very persistent, very bioaccumulative substance (REACH)
 REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
 CLP: Regulation on classification, labelling and packaging of substances and mixtures
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
- *** Data compared to the previous version altered.**