

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: **8619**  
Version: **2.0 en**  
Replaces version of: 2019-09-05  
Version: (1)

date of compilation: 2019-09-05  
Revision: 2022-09-13

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Identification of the substance	<b>Glycid ether 100</b> for electron microscopy
Article number	8619
EC number	292-011-4
CAS number	90529-77-4

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

Relevant identified uses:	Laboratory chemical Laboratory and analytical use
Uses advised against:	Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

### 1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:**+49 (0) 721 - 56 06 0  
**Telefax:** +49 (0) 721 - 56 06 149  
**e-mail:** sicherheit@carlroth.de  
**Website:** www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

**e-mail (competent person):** **sicherheit@carlroth.de**

### 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification acc. to GHS

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
3.10	Acute toxicity (oral)	4	Acute Tox. 4	H302
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: 8619

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
3.5	Germ cell mutagenicity	2	Muta. 2	H341
3.7	Reproductive toxicity	2	Repr. 2	H361f

For full text of abbreviations: see SECTION 16

## 2.2 Label elements

### Labelling

#### Signal word

**Warning**

#### Pictograms

GHS07, GHS08



#### Hazard statements

H302 Harmful if swallowed  
H315 Causes skin irritation  
H319 Causes serious eye irritation  
H341 Suspected of causing genetic defects (if exposed)  
H361f Suspected of damaging fertility (if exposed)

#### Precautionary statements

##### Precautionary statements - prevention

P280 Wear protective gloves/eye protection/face protection

##### Precautionary statements - response

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell  
P302+P352 IF ON SKIN: Wash with plenty of water  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention  
P337+P313 If eye irritation persists: Get medical advice/attention

For professional users only

## 2.3 Other hazards

Special danger of slipping by leaking/spilling product.

#### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: 8619

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

"UVCB substance".

Name of substance	Glycid ether 100
CAS No	90529-77-4
EC No	292-011-4

#### Substance, Specific Conc. Limits, M-factors, ATE

Specific Conc. Limits	M-Factors	ATE	Exposure route
-	-	500 mg/kg	oral

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures



##### General notes

Take off contaminated clothing.

##### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

##### Following skin contact

Rinse skin with water/shower. In case of skin irritation, consult a physician.

##### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Call a doctor.

#### 4.2 Most important symptoms and effects, both acute and delayed

Vomiting, Irritation

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: 8619

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media



##### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

water jet

#### 5.2 Special hazards arising from the substance or mixture

Combustible.

##### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), May produce toxic fumes of carbon monoxide if burning.

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures



##### For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

#### 6.3 Methods and material for containment and cleaning up

##### Advice on how to contain a spill

Covering of drains.

##### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### Other information relating to spills and releases

Place in appropriate containers for disposal.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: 8619

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Provision of sufficient ventilation. Avoid exposure.

##### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

##### Incompatible substances or mixtures

Observe hints for combined storage.

##### Consideration of other advice:

##### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

#### 7.3 Specific end use(s)

No information available.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### National limit values

##### Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

#### 8.2 Exposure controls

##### Individual protection measures (personal protective equipment)

##### Eye/face protection



Use safety goggle with side protection.

##### Skin protection



##### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: **8619**

### • type of material

Butyl caoutchouc (butyl rubber)

### • material thickness

0,7mm

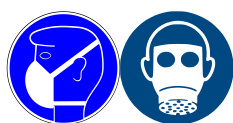
### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	viscous
Colour	clear - colourless - light yellow
Odour	odourless
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	>180 °C
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	not determined
Flash point	~175 °C (DIN 51758, EN 22719)
Auto-ignition temperature	270 – 310 °C (DIN 51794)
Decomposition temperature	180 °C
pH (value)	6 – 8 (in aqueous solution: 10 g/l, 20 °C)
Kinematic viscosity	204,9 mm <sup>2</sup> /s at 25 °C
Dynamic viscosity	~150 – 250 mPa s at 25 °C
<u>Solubility(ies)</u>	
Water solubility	20 – 30 g/l at 20 °C

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: **8619**

### Partition coefficient

Partition coefficient n-octanol/water (log value): -1,94 – -1,78 (calculated value)

Vapour pressure not determined

### Density and/or relative density

Density 1,22 g/cm<sup>3</sup>

Relative vapour density information on this property is not available

Particle characteristics not relevant (liquid)

### Other safety parameters

Oxidising properties none

## 9.2 Other information

Information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics: There is no additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

#### **If heated**

Vapours may form explosive mixtures with air.

#### **If exposed to air**

Exothermic polymerisation.

### 10.2 Chemical stability

Reactivity if exposed to air.

### 10.3 Possibility of hazardous reactions

**Violent reaction with:** strong oxidiser, Metal powder, Strong alkali, Strong acid, Metal, base

### 10.4 Conditions to avoid

Keep away from heat. Decomposition takes place from temperatures above: 180 °C. Peroxide formation possible with air oxygen.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: 8619

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Classification acc. to GHS

##### Acute toxicity

Harmful if swallowed.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	5.000 mg/kg	rat		
dermal	LD50	>2.000 mg/kg	rabbit		

##### Skin corrosion/irritation

Causes skin irritation.

##### Serious eye damage/eye irritation

Causes serious eye irritation.

##### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

##### Germ cell mutagenicity

Suspected of causing genetic defects (if exposed).

##### Carcinogenicity

Shall not be classified as carcinogenic.

##### Reproductive toxicity

Suspected of damaging fertility (if exposed).

##### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

##### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

##### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

#### Symptoms related to the physical, chemical and toxicological characteristics

##### • If swallowed

vomiting, nausea

##### • If in eyes

Causes serious eye irritation

##### • If inhaled

Data are not available.

##### • If on skin

causes skin irritation



# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: 8619

### • Other information

none

### 11.2 Endocrine disrupting properties

Not listed.

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)				
Endpoint	Value	Species	Source	Exposure time
EC50	2 mg/l	daphnia magna		48 h

### Biodegradation

Data are not available.

### 12.2 Process of degradability

Data are not available.

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	-1,94 – -1,78 (Calculated value)
---------------------------	----------------------------------

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

Not listed.

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

### Sewage disposal-relevant information

Do not empty into drains.

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: 8619

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

- 14.1 UN number or ID number** not subject to transport regulations
- 14.2 UN proper shipping name** not assigned
- 14.3 Transport hazard class(es)** none
- 14.4 Packing group** not assigned
- 14.5 Environmental hazards** non-environmentally hazardous acc. to the dangerous goods regulations
- 14.6 Special precautions for user**  
There is no additional information.
- 14.7 Maritime transport in bulk according to IMO instruments**  
The cargo is not intended to be carried in bulk.
- 14.8 Information for each of the UN Model Regulations**
- Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information**  
Not subject to ADR, RID and ADN.
- International Maritime Dangerous Goods Code (IMDG) - Additional information**  
Not subject to IMDG.
- International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information**  
Not subject to ICAO-IATA.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Relevant provisions of the European Union (EU)

##### Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
	not assigned		

##### Deco-Paint Directive

VOC content	100 %
-------------	-------

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: 8619

### Industrial Emissions Directive (IED)

VOC content	100 %
-------------	-------

### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

### Water Framework Directive (WFD)

List of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Glycid ether 100	Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment		a)	

#### Legend

A) Indicative list of the main pollutants

### Regulation on the marketing and use of explosives precursors

not listed

### Regulation on drug precursors

not listed

### Regulation on substances that deplete the ozone layer (ODS)

not listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

### Regulation on persistent organic pollutants (POP)

not listed

### National regulations(GB)

#### List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

not listed

#### Restrictions according to GB REACH, Annex 17

Dangerous substances with restrictions (GB REACH, Annex 17)			
Name of substance	Name acc. to inventory	CAS No	No
Glycid ether 100	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		3

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: 8619

### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

### National inventories

Country	Inventory	Status
AU	AIIC	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
KR	KECI	substance is listed
NZ	NZIoC	substance is listed
TW	TCSI	substance is listed

#### Legend

AIIC	Australian Inventory of Industrial Chemicals
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
TCSI	Taiwan Chemical Substance Inventory

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

Alignment to regulation:

Restructuring: section 9, section 14

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1		Classification acc. to GHS: change in the listing (table)	yes
2.2		Precautionary statements - prevention: change in the listing (table)	yes
2.2	Labelling of packages where the contents do not exceed 125 ml: Signal word: Warning		yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.3	Other hazards: There is no additional information.	Other hazards: Special danger of slipping by leaking/spilling product.	yes

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: **8619**

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.3		Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.	yes

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
UVCB	Substance of Unknown or Variable composition, Complex reaction products or Biological materials
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

### Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



## Glycid ether 100 for electron microscopy

article number: **8619**

### List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects (if exposed).
H361f	Suspected of damaging fertility (if exposed).

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.