

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Glycolic acid for synthesis

Revision date: 28.07.2023

Product code: 16802

Page 1 of 11

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Glycolic acid for synthesis

CAS No: 79-14-1  
EC No: 201-180-5**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet**

Company name:	AnalytiChem GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
E-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**Acute Tox. 4; H332  
Skin Corr. 1B; H314

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Signal word:** Danger**Pictograms:****Hazard statements**H314 Causes severe skin burns and eye damage.  
H332 Harmful if inhaled.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Glycolic acid for synthesis**

Revision date: 28.07.2023

Product code: 16802

Page 2 of 11

**Precautionary statements**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

Sum formula: HOCH<sub>2</sub>COOH  
Molecular weight: 76,05 g/mol

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
79-14-1	glycollic acid			100 %
	201-180-5			
	Acute Tox. 4, Skin Corr. 1B; H332 H314			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
79-14-1	201-180-5	glycollic acid	100 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 = 2040 mg/kg		

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

Self-protection of the first aider

**After inhalation**

Provide fresh air.  
Call a physician immediately.

**After contact with skin**

Wash immediately with: Water  
Take off immediately all contaminated clothing and wash it before reuse.  
Call a physician immediately.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Glycolic acid for synthesis

Revision date: 28.07.2023

Product code: 16802

Page 3 of 11

Remove contact lenses, if present and easy to do. Continue rinsing.

#### After ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting.

Do not allow a neutralisation agent to be drunk.

Call a physician immediately.

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

Irritant

corrosive

Dyspnoea

Cough

Unconsciousness

Risk of serious damage to eyes.

Headache

Gastrointestinal complaints

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

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

##### Unsuitable extinguishing media

no restriction

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

Combustible solids

Hazardous combustion products

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

#### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

### SECTION 6: Accidental release measures

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

##### For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

##### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Glycolic acid for synthesis

Revision date: 28.07.2023

Product code: 16802

Page 4 of 11

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

##### **For containment**

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Take up carefully when dry. Take up dust-free and set down dust-free.

##### **For cleaning up**

- Clean contaminated articles and floor according to the environmental legislation.

##### **Other information**

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

#### **6.4. Reference to other sections**

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

## **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

- Read label before use. Handle and open container with care.
- When using do not eat, drink, smoke, sniff. Keep container tightly closed.
- Use personal protection equipment. Use extractor hood (laboratory).
- Avoid dust formation. Do not breathe dust. Provide adequate ventilation.

##### **Advice on protection against fire and explosion**

- In case of warming: Vapours are heavier than air, spread along floors and form explosive mixtures with air.

##### **Advice on general occupational hygiene**

- Keep away from food, drink and animal feedingstuffs.

##### **Further information on handling**

- Take off immediately all contaminated clothing and wash it before reuse.
- Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

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

##### **Requirements for storage rooms and vessels**

- Store in a well-ventilated place. Keep container tightly closed.
- Store in a dry place.
- Unsuitable container/equipment material:
  - Aluminium
  - Tin
  - Zinc

##### **Further information on storage conditions**

- storage temperature < +30°C

#### **7.3. Specific end use(s)**

- Laboratory chemicals

## **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Glycolic acid for synthesis**

Revision date: 28.07.2023

Product code: 16802

Page 5 of 11

**DNEL/DMEL values**

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
79-14-1	glycollic acid		
Worker DNEL, long-term	inhalation	systemic	10,56 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	systemic	9,2 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	local	1,53 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	local	9,2 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	57,69 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	2,6 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	systemic	2,3 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	local	2,3 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	28,85 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,75 mg/kg bw/day

**PNEC values**

CAS No	Substance	
Environmental compartment	Value	
79-14-1	glycollic acid	
Freshwater	0,031 mg/l	
Freshwater (intermittent releases)	0,312 mg/l	
Marine water	0,003 mg/l	
Freshwater sediment	0,115 mg/kg	
Marine sediment	0,011 mg/kg	
Secondary poisoning	16,66 mg/kg	
Micro-organisms in sewage treatment plants (STP)	7 mg/l	
Soil	0,007 mg/kg	

**8.2. Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles

Face protection umbrella

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Glycolic acid for synthesis**

Revision date: 28.07.2023

Product code: 16802

Page 6 of 11

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

**Skin protection**

Protective clothing, acid-resistant  
Take off immediately all contaminated clothing and wash it before reuse.  
Wash hands and face before breaks and after work and take a shower if necessary.  
Draw up and observe skin protection programme.

**Respiratory protection**

Respiratory protection necessary at: dust formation  
Filtering device (full mask or mouthpiece) with filter: P2

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	solid
Colour:	colourless
Odour:	odourless
Odour threshold:	No data available
Melting point/freezing point:	76-80 °C
Boiling point or initial boiling point and boiling range:	100 °C
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	>300 °C
Auto-ignition temperature:	No data available
Decomposition temperature:	>100 °C
pH-Value (at 20 °C):	~2 (50 g/l)
Viscosity / kinematic:	No data available
Water solubility:	Soluble in: Water
Solubility in other solvents:	No data available
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	log Pow: -1,11 (19 °C)
Dispersion stability:	No data available

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Glycolic acid for synthesis

Revision date: 28.07.2023

Product code: 16802

Page 7 of 11

Vapour pressure: (at 80 °C)	10,8 hPa
Vapour pressure:	No data available
Density (at 25 °C):	1,49 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	~600 kg/m <sup>3</sup>
Relative vapour density:	No data available
Particle characteristics:	No data available

#### 9.2. Other information

##### Information with regard to physical hazard classes

###### Explosive properties

In case of warming: Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Danger of dust explosion.

###### Sustaining combustion:

No data available

###### Self-ignition temperature

Solid:

No data available

Gas:

No data available

###### Oxidizing properties

No data available

##### Other safety characteristics

###### Evaporation rate:

No data available

###### Solvent separation test:

No data available

###### Solvent content:

No data available

###### Solid content:

100%

###### Sublimation point:

No data available

###### Softening point:

No data available

###### Pour point:

No data available

No data available

###### Viscosity / dynamic:

No data available

###### Flow time:

No data available

##### Further Information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

In case of warming: Vapours may form explosive mixtures with air.

Danger of dust explosion.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

Oxidising agent

Alkali (lye)

Reducing agent

### 10.4. Conditions to avoid

Heat

### 10.5. Incompatible materials

Metal

The product develops hydrogen in an aqueous solution in contact with metals.

### 10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Glycolic acid for synthesis**

Revision date: 28.07.2023

Product code: 16802

Page 8 of 11

**Further information**

No data available

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Toxicokinetics, metabolism and distribution**

No data available

**Acute toxicity**

Harmful if inhaled.

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
79-14-1	glycolic acid				
	oral	LD50 2040 mg/kg	Rat	Study report (1998)	EPA OPP 81-1
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

**Irritation and corrosivity**

Causes severe skin burns and eye damage.

Causes serious eye damage.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

Observe risk of aspiration if vomiting occurs.

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards**

**Endocrine disrupting properties**

No data available

**Other information**

Irritant

corrosive

Dyspnoea

Cough

Unconsciousness

Risk of serious damage to eyes.

Headache



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Glycolic acid for synthesis**

Revision date: 28.07.2023

Product code: 16802

Page 9 of 11

Gastrointestinal complaints

**Further information**

Liver and kidney damage

**SECTION 12: Ecological information**

**12.1. Toxicity**

Based on available data, the classification criteria are not met.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
79-14-1	glycollic acid					
	Acute fish toxicity	LC50 164 mg/l	96 h	Pimephales promelas	REACH Registration Dossier	other: US EPA Pesticide Assessment Guide
	Acute algae toxicity	ErC50 22,5 mg/l	72 h	Pseudokirchneriella subcapitata	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 141 mg/l	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202
	Acute bacteria toxicity	(EC50 > 100 mg/l)	3 h	Activated sludge	REACH Registration Dossier	OECD Guideline 209

**12.2. Persistence and degradability**

89,6 %; 7 d  
OECD 301D  
Readily biodegradable (according to OECD criteria).

**12.3. Bioaccumulative potential**

log Pow: -1,11 (19 °C)  
No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
79-14-1	glycollic acid	< 0,3

**12.4. Mobility in soil**

No data available

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

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

Do not allow to enter into surface water or drains.  
Avoid release to the environment.

**Further information**

No data available

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Glycolic acid for synthesis**

Revision date: 28.07.2023

Product code: 16802

Page 10 of 11

Send to a physico-chemical treatment facility under observation of official regulations.  
Do not empty into drains.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.  
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 3261  
**14.2. UN proper shipping name:** CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (glycollic acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8  
 Classification code: C4  
 Special Provisions: 274  
 Limited quantity: 1 kg  
 Excepted quantity: E2  
 Transport category: 2  
 Hazard No: 80  
 Tunnel restriction code: E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 3261  
**14.2. UN proper shipping name:** CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (glycollic acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8  
 Classification code: C4  
 Special Provisions: 274  
 Limited quantity: 1 kg  
 Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 3261  
**14.2. UN proper shipping name:** CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (glycollic acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8  
 Special Provisions: 274  
 Limited quantity: 1 kg  
 Excepted quantity: E2  
 EmS: F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 3261  
**14.2. UN proper shipping name:** CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (glycollic acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8  
 Special Provisions: A3 A803  
 Limited quantity Passenger: 5 kg  
 Passenger LQ: Y844  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 859  
 IATA-max. quantity - Passenger: 15 kg

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Glycolic acid for synthesis**

Revision date: 28.07.2023

Product code: 16802

Page 11 of 11

IATA-packing instructions - Cargo:

863

IATA-max. quantity - Cargo:

50 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**Information according to 2012/18/EU  
(SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 9,12.

**Abbreviations and acronyms**

Acute Tox: Acute toxicity

Skin Corr: Skin corrosion

Eye Dam: Eye damage

**Relevant H and EUH statements (number and full text)**

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.