

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

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

1.1 Product identifier

Trade name: **Glycolic Acid solution 70 %**

Article number: 167073

Registration number

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, the registration is envisaged for a later registration deadline or it is a mixture.

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

No further relevant information available.

Application of the substance / the mixture Laboratory chemical

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

AppliChem GmbH
Ottoweg 4
D-64291 Darmstadt

Tel.: +49 (0)6151 93570
Fax.: +49 (0)6151 935711
msds@applichem.com

Further information obtainable from: Dept. Compliance

1.4 Emergency telephone number: +49(0)6151 93570 (Inside normal business hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4 H332 Harmful if inhaled.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS05 GHS07

Signal word Danger

Hazard-determining components of labelling:

glycollic acid
formic acid 98-100%

Hazard statements

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

Precautionary statements

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

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture: consisting of the following components.

• **Dangerous components:**

CAS: 79-14-1 EINECS: 201-180-5 Reg.nr.: 01-2119485579-17-XXXX	glycollic acid Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H332	>50-<100%
CAS: 64-18-6 EINECS: 200-579-1 Reg.nr.: 01-2119491174-37-XXXX	formic acid 98-100% Flam. Liq. 3, H226; Acute Tox. 3, H331; Skin Corr. 1A, H314; Acute Tox. 4, H302	>0.1-≤1%
CAS: 625-45-6 EINECS: 210-894-6	methoxyacetic acid Repr. 1B, H360FD; Skin Corr. 1B, H314; Acute Tox. 4, H302	>0.1-≤1%

• **SVHC**

625-45-6	methoxyacetic acid	0.25%
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

• **4.1 Description of first aid measures**

• **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Involve doctor immediately.

• **After inhalation:**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

• **After skin contact:**

Call a doctor immediately.

Immediately wash with water and soap and rinse thoroughly.

Immediately remove any clothing soiled by the product.

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

• **After swallowing:**

make victim drink water (maximum of 2 drinking glasses)

Call a doctor immediately.

• **4.2 Most important symptoms and effects, both acute and delayed**

Coughing

Breathing difficulty

Irritation to eyes, skin and mucous membrane

Nausea

Cramp

Gastric or intestinal disorders

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- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**
carbon oxides (CO, CO₂).
Non-combustible.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Mouth respiratory protective device.
Wear self-contained respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Contain escaping vapours with water.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Avoid substance contact.
- **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).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Clean up affected area.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Provide acid-resistant floor.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Open receptacle only under localised extractor facilities.
Store receptacle in a well ventilated area.
Store under lock and key and with access restricted to technical experts or their assistants only.
- **Recommended storage temperature:** +15 - +25°C
- **Storage class:** 8 B
- **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

Ingredients with limit values that require monitoring at the workplace:

64-18-6 formic acid 98-100%

WEL Long-term value: 9.6 mg/m³, 5 ppm

• DNELs

79-14-1 glycolic acid

Oral	Long-term - systemic effects, general population	0.75 mg/kg
Dermal	Long-term - systemic effects, worker	57.69 mg/kg
	Long-term - local effects, general population	28.85 mg/kg
Inhalative	Acute - local effects, worker	9.2 mg/m ³
	Acute - systemic effects, worker	9.2 mg/m ³
	Long-term - systemic effects, worker	10.56 mg/m ³
	Long-term - local effects, worker	1.53 mg/m ³
	Acute - systemic effects, general population	2.3 mg/m ³
	Long-term - systemic effects, general population	2.6 mg/m ³
	Long-term - local effects, general population	2.3 mg/m ³

• PNECs

79-14-1 glycolic acid

Aquatic compartment - freshwater	0.031 mg/L
Aquatic compartment - marine water	0.0031 mg/L
Aquatic compartment - water, intermittent releases	0.312 mg/L
Aquatic compartment - sediment in freshwater	0.115 mg/kg
Aquatic compartment - sediment in marine water	0.011 mg/kg
Terrestrial compartment - soil	0.007 mg/kg
Sewage treatment plant	7 mg/L
Oral secondary poisoning	16.66 mg/kg food

- **Additional information:** The lists valid during the making 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.

• Respiratory protection:

Respiratory protection required when vapours/aerosols are generated.
Filter ABEK

• Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to

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be checked prior to the application.

• **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 gloves made of the following materials are suitable:**

Recommended thickness of the material: ≥ 0.6 mm

Chloroprene rubber, CR

Value for the permeation: Level ≥ 480 min

• **As protection from splashes gloves made of the following materials are suitable:**

Recommended thickness of the material: ≥ 0.6 mm

Chloroprene rubber, CR

Value for the permeation: Level ≥ 480 min

• **Eye protection:**



Tightly sealed goggles

• **Body protection:**

Use protective suit.

Acid resistant protective clothing

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

SECTION 9: Physical and chemical properties

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

• **General Information**

• **Appearance:**

Form:	Fluid
Colour:	Light yellow
Odour:	Characteristic
Odour threshold:	Not determined.

• **pH-value at 20 °C:** 0.1

• **Change in condition**

Melting point/freezing point:	10 °C
Initial boiling point and boiling range:	112 °C

• **Flash point:** Not applicable.

• **Flammability (solid, gas):** Not applicable.

• **Decomposition temperature:** Not determined.

• **Auto-ignition temperature:** Product is not selfigniting.

• **Explosive properties:** Product does not present an explosion hazard.

• **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

• **Vapour pressure at 25 °C:** 0 hPa

• **Density at 20 °C:** 1.27 g/cm³

• **Relative density** Not determined.

• **Vapour density** Not determined.

• **Evaporation rate** Not determined.

• **Solubility in / Miscibility with water:**

Fully miscible.

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- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic at 40 °C:** 6.149 mm²/s
- **Solvent content:**
 - Water:** 28.9 %
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No dangerous reactions known.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
 - alkali metals
 - alkaline earth metals
 - oxidizing agent
 - sulfides
 - cyanides
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful if inhaled.
- **LD/LC50 values relevant for classification:**

Components	Type	Value	Species
79-14-1 glycollic acid			
Oral	LD50	2,040 mg/kg	(rat)
625-45-6 methoxyacetic acid			
Oral	LD50	>1,000 mg/kg	(rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **After inhalation:** Strong caustic effect on skin and mucous membranes.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** 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.

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SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**

Type of test	Effective concentration	Method	Assessment
79-14-1 glycollic acid			
LC50/48 h	141 mg/l	(daphnia magna)	
LC50/96 h	164 mg/l	(fish)	
625-45-6 methoxyacetic acid			
EC50/72 h	66.2 mg/l	(daphnia magna)	
EC50/48 h	68.3 mg/l	(daphnia magna)	

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values.
A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow to enter waters, waste water, or soil.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Chemicals must be disposed of in compliance with the respective national regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:**
Disposal must be made according to official regulations.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

• 14.1 UN-Number	
• ADR, IMDG, IATA	UN3265
• 14.2 UN proper shipping name	
• ADR, IMDG, IATA	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (glycollic acid, FORMIC ACID)

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· **14.3 Transport hazard class(es)**

· **ADR**



· **Class**

8 (C3) Corrosive substances.

· **Label**

8

· **IMDG, IATA**



· **Class**

8 Corrosive substances.

· **Label**

8

· **14.4 Packing group**

· **ADR, IMDG, IATA**

II

· **14.5 Environmental hazards:**

· **Marine pollutant:**

No

· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Danger code (Kemler):**

80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

Acids

· **Stowage Category**

A

· **Stowage Code**

SW2 Clear of living quarters.

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **Transport category**

2

· **Tunnel restriction code**

E

· **IMDG**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (GLYCOLLIC ACID, FORMIC ACID), 8, II

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

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- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

625-45-6	methoxyacetic acid	0.25%
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- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.

· **Relevant phrases**

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H360FD May damage fertility. May damage the unborn child.

- **Department issuing SDS:** Dept. Compliance

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Repr. 1B: Reproductive toxicity – Category 1B

- *** Data compared to the previous version altered.**