



SAFETY DATA SHEET GLYCOLIC ACID 70 E SOLUTION

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

1.1. Product identifier

Product name	GLYCOLIC ACID 70 E SOLUTION
Product number	11136
Synonyms; trade names	HYDROXYACETIC ACID, HYDROXYETHANOIC ACID, HAA, INGREDIENT 3059

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

Identified uses	Industrial application Water Treatment Cleaning agent. Oilfield applications Petrol Process Additive Textiles Leather treatment Surface coating
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1.3. Details of the supplier of the safety data sheet

Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com
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1.4. Emergency telephone number

Emergency telephone	SGS - +32 (0)3 575 55 55 (24h)
Sds No.	11136

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318
Environmental hazards	Not Classified

2.2. Label elements

Hazard pictograms



Signal word	Danger
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Hazard statements	EUH208 Contains FORMALDEHYDE. May produce an allergic reaction. H332 Harmful if inhaled. H314 Causes severe skin burns and eye damage.
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Precautionary statements	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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.
Supplemental label information	EUH071 Corrosive to the respiratory tract.
Contains	GLYCOLIC ACID, FORMIC ACID ...%

2.3. Other hazards

In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

GLYCOLIC ACID >= 50 - < 70%		
CAS number: 79-14-1	EC number: 201-180-5	REACH registration number: 01-2119485579-17-XXXX
Classification Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318		
FORMIC ACID ...% >= 0.1 - < 1%		
CAS number: 64-18-6	EC number: 200-579-1	REACH registration number: 01-2119491174-37-XXXX
Acute Toxicity Estimate (oral):730 mg/kg Acute Toxicity Estimate (inhalation):7.85 mg/l4 hoursVapour Skin Corr. 1A - H314>= 90 % Skin Corr. 1B - H31410 - < 90 % Skin Irrit. 2 - H3152 - < 10 % Eye Irrit. 2 - H3192 - < 10 %		
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 3 - H331 Skin Corr. 1A - H314 Eye Dam. 1 - H318		

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METHOXYACETIC ACID

>= 0.1 - < 0.3%

CAS number: 625-45-6

EC number: 210-894-6

Classification

Acute Tox. 4 - H302
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Repr. 1B - H360FD
STOT SE 3 - H335

FORMALDEHYDE

< 0.1%

CAS number: 50-00-0

EC number: 200-001-8

Classification

Acute Tox. 3 - H301
Acute Tox. 3 - H311
Acute Tox. 3 - H331
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Muta. 2 - H341
Carc. 1B - H350
STOT SE 3 - H335

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. If breathing stops, provide artificial respiration. Get medical attention immediately.

Ingestion

Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately.

Skin contact

Rinse immediately with plenty of water. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Wash clothing and clean shoes thoroughly before reuse. Get medical attention immediately.

Eye contact

Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse. Chemical burns must be treated by a physician.

Protection of first aiders

First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that airborne contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

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

Inhalation	Harmful if inhaled. Corrosive to the respiratory tract. A single exposure may cause the following adverse effects: Coughing. Shortness of breath. Pain or irritation.
Ingestion	A single exposure may cause the following adverse effects: Nausea, vomiting. Diarrhoea. Gastrointestinal symptoms, including upset stomach. Stomach pain.
Skin contact	Causes severe burns. The product contains a small amount of sensitising substance. May cause skin sensitisation or allergic reactions in sensitive individuals.
Eye contact	Causes serious eye damage. A single exposure may cause the following adverse effects: Corrosive. Severe irritation. May cause permanent damage if eye is not immediately irrigated.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. Harmful if inhaled. Corrosive to the respiratory tract.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting	Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Contain and collect extinguishing water.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Keep unnecessary and unprotected personnel away from the spillage. No action shall be taken without appropriate training or involving any personal risk. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet.
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6.2. Environmental precautions

Environmental precautions	Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Stop leak if safe to do so. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. The contaminated absorbent may pose the same hazard as the spilled material. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air.
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6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and spray/mists. Avoid contact with skin, eyes and clothing. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air.

Advice on general occupational hygiene Eye wash facilities and emergency shower must be available when handling this product. Do not eat, drink or smoke when using this product. Wash after use and before eating, smoking and using the toilet. Take off immediately all contaminated clothing and wash it before reuse. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. Store locked up. Store at temperatures between > 10°C and < 50°C. Avoid contact with the following materials: Strong oxidising agents. Organic peroxides/hydroperoxides. Explosive substance Common metals.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

FORMIC ACID ...%

Long-term exposure limit (8-hour TWA): WEL 5 ppm 9.6 mg/m³

FORMALDEHYDE

Long-term exposure limit (8-hour TWA): WEL 2 ppm 2.5 mg/m³

Short-term exposure limit (15-minute): WEL 2 ppm 2.5 mg/m³

Carc

WEL = Workplace Exposure Limit.

Carc = Capable of causing cancer and/or heritable genetic damage.

Ingredient comments Observe any occupational exposure limits for the product or ingredients.

GLYCOLIC ACID (CAS: 79-14-1)

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DNEL

Industry - Inhalation; Short term systemic effects: 9.2 mg/m³
 Industry - Dermal; Long term systemic effects: 57.69 mg/kg/day
 Industry - Inhalation; Long term systemic effects: 10.56 mg/m³
 Industry - Inhalation; Long term local effects: 1.53 mg/m³
 Consumer - Inhalation; Long term local effects: 2.3 mg/m³
 Consumer - Inhalation; Long term systemic effects: 2.6 mg/m³
 Consumer - Oral; Long term systemic effects: 0.75 mg/kg/day
 Consumer - Dermal; Long term systemic effects: 28.85 mg/kg/day
 Industry - Inhalation; Short term local effects: 9.2 mg/m³

PNEC

- Fresh water; 0.0321 mg/l
 - marine water; 0.0031 mg/l
 - Sediment (Marinewater); 0.0115 mg/l
 - Soil; 0.007 mg/l
 - STP; 7 mg/l
 - Intermittent release; 0.312 mg/l
 - Sediment (Freshwater); 0.115 mg/kg

FORMIC ACID ...% (CAS: 64-18-6)

DNEL

Industry - Inhalation; Long term local effects: 9.5 mg/m³
 Consumer - Inhalation; Short term local effects: 9.5 mg/m³
 Consumer - Inhalation; Long term local effects: 3 mg/m³
 Industry - Inhalation; Short term local effects: 19 mg/m³

PNEC

- Fresh water; 2.0 mg/l
 - Intermittent release; 1 mg/l
 - marine water; 0.20 mg/l
 - STP; 7.2 mg/l
 - Sediment; 13.4 mg/l
 - Sediment (Marinewater); 1.34 mg/kg
 - Soil; 1.5 mg/kg

FORMALDEHYDE (CAS: 50-00-0)

DNEL

Industry - Inhalation; Short term local effects: 1 mg/m³
 Industry - Dermal; Long term systemic effects: 240 mg/kg/day
 Industry - Inhalation; Long term systemic effects: 9 mg/m³
 Industry - Inhalation; Long term local effects: 0.5 mg/m³
 Consumer - Dermal; Long term systemic effects: 102 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 3.2 mg/m³
 Consumer - Oral; Long term systemic effects: 4.1 mg/kg/day
 Consumer - Inhalation; Long term local effects: 0.1 mg/m³

PNEC

- Fresh water; 0.47 mg/l
 - marine water; 0.47 mg/l
 - Intermittent release; 4.7 mg/l
 - Sediment; 2.44 mg/kg
 - Sediment (Marinewater); 2.44 mg/kg
 - Soil; 0.21 mg/kg
 - STP; 0.19 mg/l

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

Eye wash facilities and emergency shower must be available when handling this product. Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Chemical splash goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The selected gloves should have a breakthrough time of at least 8 hours. It is recommended that gloves are made of the following material: Chloroprene rubber. Thickness: 0.6 mm To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

Do not eat, drink or smoke when using this product. Wash after use and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated work clothing should not be allowed out of the workplace. Take off immediately all contaminated clothing and wash it before reuse.

Respiratory protection

Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. If ventilation is inadequate, suitable respiratory protection must be worn. Wear self-contained breathing apparatus. EN 136/140/141/145/143/149 Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Light (or pale). Yellow.
Odour	Characteristic.
Odour threshold	No information available.
pH	pH (concentrated solution): 0.1
Melting point	10°C
Initial boiling point and range	112°C @ 1013 hPa
Flash point	> 100°C
Evaporation rate	No information available.
Evaporation factor	No information available.

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Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	0.0041 hPa @ 25°C
Vapour density	No information available.
Relative density	1.27 @ 20°C
Bulk density	No information available.
Solubility(ies)	Miscible with water.
Partition coefficient	log Pow: -1.07
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	6.149 mm ² /s @ 23°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	No information available.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	No information available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. The following materials may react with the product: Oxidising agents. Alkalis. Organic peroxides/hydroperoxides. Common metals.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No information available.
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10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.
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10.5. Incompatible materials

Materials to avoid	Avoid contact with the following materials: Oxidising agents. Alkalis. Common metals. Organic peroxides/hydroperoxides. Explosive
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10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
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SECTION 11: Toxicological information

GLYCOLIC ACID 70 E SOLUTION

11.1. Information on toxicological effects

Toxicological effects Harmful if inhaled.

Acute toxicity - oral

Notes (oral LD₅₀) No information available.

Acute toxicity - dermal

Notes (dermal LD₅₀) No information available.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ 4.85 mg/l, 4 hours, Dust/Mist Calculation method.

ATE inhalation (dusts/mists mg/l) 4.85

Skin corrosion/irritation

Skin corrosion/irritation Causes severe burns.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation The product contains a small amount of sensitising substance. May cause skin sensitisation or allergic reactions in sensitive individuals.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Corrosive to the respiratory tract.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard No information available.

Inhalation

Harmful if inhaled. Corrosive to the respiratory tract. A single exposure may cause the following adverse effects: Coughing. Shortness of breath. Pain or irritation.

Ingestion

A single exposure may cause the following adverse effects: Nausea, vomiting. Diarrhoea. Gastrointestinal symptoms, including upset stomach. Stomach pain.

Skin contact

Causes severe burns. The product contains a small amount of sensitising substance. May cause skin sensitisation or allergic reactions in sensitive individuals.

Eye contact

Causes serious eye damage. A single exposure may cause the following adverse effects: Corrosive. Severe irritation.

Toxicological information on ingredients.

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GLYCOLIC ACID

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,040.0

Species Rat

ATE oral (mg/kg) 2,040.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 3.6

Species Rat

Notes (inhalation LC₅₀) LC₅₀ 3.6 mg/l, 4 hours, Dust/Mist Rat

ATE inhalation (dusts/mists mg/l) 3.6

Skin corrosion/irritation

Animal data Corrosive to skin. Rabbit OECD 404

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage. Rabbit OECD 405

Skin sensitisation

Skin sensitisation Buehler test - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties. Ames test: Negative. OECD 471
Chromosome aberration: Negative. OECD 473
Gene mutation: Negative. OECD 476

Genotoxicity - in vivo Micronucleus assay: Negative. OECD 474

Carcinogenicity

Carcinogenicity No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Reproductive toxicity - fertility This substance has no evidence of toxicity to reproduction. One-generation study - , Oral, Rat Negative.

Reproductive toxicity - development Embryotoxicity:, Fetotoxicity: - : , Oral, Rat Negative. OECD 414

Specific target organ toxicity - single exposure

STOT - single exposure Corrosive to the respiratory tract.

Inhalation Harmful if inhaled. Dust in high concentrations may irritate the respiratory system. May cause coughing and difficulties in breathing.

Ingestion Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. May cause stomach pain or vomiting. Diarrhoea.

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Skin contact This product is corrosive.

Eye contact Corrosive.

FORMIC ACID ...%

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 730.0

Species Rat

Notes (oral LD₅₀) Harmful if swallowed. OECD 401

ATE oral (mg/kg) 730.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 7.85

Species Rat

Notes (inhalation LC₅₀) Toxic if inhaled. LC₅₀ 7.85 mg/l, 4 hours, Vapour Rat OECD 403

ATE inhalation (vapours mg/l) 7.85

Skin corrosion/irritation

Animal data Causes severe burns. Rabbit OECD 404

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage. Corrosive to skin. Corrosivity to eyes is assumed.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising. Buehler test Guinea pig OECD 406

Germ cell mutagenicity

Genotoxicity - in vitro Ames test: Negative. Based on available data the classification criteria are not met. OECD 471

Genotoxicity - in vivo Based on available data the classification criteria are not met. OECD 477

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met. Read-across data.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met. Two-generation study - , Oral, Rat OCED 416

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

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Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEC 0.122 mg/l, Inhalation, Rat

Aspiration hazard

Aspiration hazard Not applicable.

Toxicokinetics

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation

Corrosive to the respiratory tract. Toxic if inhaled.

Ingestion

Causes burns. Harmful if swallowed.

Skin contact

Causes severe burns.

Eye contact

Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. May cause chemical eye burns.

METHOXYACETIC ACID

Toxicological effects

Harmful if inhaled.

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,000.0

Species

Rat

ATE oral (mg/kg)

1,000.0

Skin corrosion/irritation

Animal data

Corrosive. OECD 404

Serious eye damage/irritation

Serious eye

damage/irritation

Corrosive OECD 405

Germ cell mutagenicity

Genotoxicity - in vitro

Ames test: Negative. Gene mutation: Negative. Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Summary

May damage fertility or the unborn child.

Reproductive toxicity - fertility

Two-generation study - , Oral, Mouse Positive.

Reproductive toxicity - development

Embryotoxicity:, Fetotoxicity: - : , Oral, Rat Positive.

Specific target organ toxicity - single exposure

STOT - single exposure

May cause respiratory irritation.

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Acute toxicity - oral

Acute toxicity oral (LD ₅₀ mg/kg)	100.0
Species	Rat
Notes (oral LD ₅₀)	LD ₅₀ 100 mg/kg, Oral, Rat
ATE oral (mg/kg)	100.0

Acute toxicity - dermal

Acute toxicity dermal (LD ₅₀ mg/kg)	270.0
Species	Rabbit
Notes (dermal LD ₅₀)	LD ₅₀ 270 mg/kg, Dermal, Rabbit
ATE dermal (mg/kg)	270.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC ₅₀ gases ppmV)	588.0
Species	Rat
Notes (inhalation LC ₅₀)	LC ₅₀ 588 mg/m ³ , Inhalation, Gas., Rat
ATE inhalation (gases ppm)	588.0

Skin corrosion/irritation

Animal data	Corrosive: Rabbit
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Serious eye damage/irritation

Serious eye damage/irritation	Causes serious eye damage.
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Skin sensitisation

Skin sensitisation	Guinea pig: Sensitising. Buehler test - Guinea pig: Sensitising. Local Lymph Node Assay (LLNA) - Mouse: Sensitising.
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Germ cell mutagenicity

Genotoxicity - in vitro	Ames test: Positive. Chromosome aberration: Positive. Gene mutation: Negative. DNA damage and/or repair: Inconclusive.
Genotoxicity - in vivo	DNA damage and/or repair: Negative.

Carcinogenicity

IARC carcinogenicity	IARC Group 1 Carcinogenic to humans.
NTP carcinogenicity	Known human carcinogen.

Reproductive toxicity

Reproductive toxicity - fertility	No information available.
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Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 82 mg/kg, Oral, Rat NOAEL 1.2 mg/m³, Gas., Inhalation, Rat

Target organs NOSE. Upper respiratory irritation.

SECTION 12: Ecological information

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

FORMIC ACID ...%

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity No information available.

Ecological information on ingredients.

GLYCOLIC ACID

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 114.8 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 99.6 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants ErC₅₀, 72 hours: 31.2 mg/l, Pseudokirchneriella subcapitata
NOEC, 72 hours: 14.4 mg/l, Pseudokirchneriella subcapitata
OECD 201

FORMIC ACID ...%

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 122 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 85 mg/l, Daphnia magna

Acute toxicity - aquatic plants , EbC₅₀ 96 hours: 25 mg/l, Scenedesmus subspicatus

Acute toxicity - microorganisms EC₅₀, 30 minutes: 1000 mg/l, Activated sludge
OECD 209

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: > 100 mg/l, Daphnia magna

METHOXYACETIC ACID

Acute aquatic toxicity

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Acute toxicity - fish	LC ₅₀ , 96 hours: > 500 mg/l, Brachydanio rerio (Zebra Fish) OECD 203
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 68.3 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 66.2 mg/l, Desmodesmus subspicatus OECD 201
Acute toxicity - microorganisms	EC ₅₀ , 30 minutes: > 1000 mg/l, OECD 209

FORMALDEHYDE

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hour: 6.7 mg/l, (Morone saxatilis) LC ₅₀ , 96 hour: 22.6 - 25.7 mg/l, Pimephales promelas (Fat-head Minnow) LC ₅₀ , 96 hour: 1510 µg/l, Lepomis macrochirus (Bluegill) LC ₅₀ , 96 hour: 41 mg/l, Brachydanio rerio (Zebra Fish) LC ₅₀ , 96 hour: 100 - 136 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hour: 5.8 mg/l, Freshwater invertebrates (Daphnia pulex) EC ₅₀ , 48 hour: 11.3 - 18 mg/l, Daphnia magna
Acute toxicity - aquatic plants	ErC50, 72 hour: 4.89 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC ₅₀ , 3 hour: 19 mg/l, Activated sludge

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

GLYCOLIC ACID

Persistence and degradability	The product is readily biodegradable.
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FORMIC ACID ...%

Persistence and degradability	The product is readily biodegradable.
Biodegradation	- Degradation 100 %: 11 days
Biological oxygen demand	86
Chemical oxygen demand	348

METHOXYACETIC ACID

Persistence and degradability	The product is readily biodegradable.
--------------------------------------	---------------------------------------

GLYCOLIC ACID 70 E SOLUTION

Biodegradation - Degradation 98%: 28 days
OECD 301A

FORMALDEHYDE

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation 90%: 28 day
OECD 301D
- Degradation > 90%: 14 day
OECD 301C

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: -1.07

Ecological information on ingredients.

GLYCOLIC ACID

Bioaccumulative potential No data available on bioaccumulation.

FORMIC ACID ...%

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient log Pow: - 0.54 OECD 107

METHOXYACETIC ACID

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: -0.68 Calculation method.

FORMALDEHYDE

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: 0.35

12.4. Mobility in soil

Mobility The product is soluble in water.

Ecological information on ingredients.

GLYCOLIC ACID

Mobility No information available.

FORMIC ACID ...%

Mobility The product is soluble in water.

Surface tension 71.5 mN/m @ 20°C

12.5. Results of PBT and vPvB assessment

GLYCOLIC ACID 70 E SOLUTION

Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

GLYCOLIC ACID

Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

FORMIC ACID ...%

Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

METHOXYACETIC ACID

Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects

Not determined.

Ecological information on ingredients.

GLYCOLIC ACID

Other adverse effects

None known.

FORMIC ACID ...%

Other adverse effects

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

Waste is classified as hazardous waste. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Waste class

Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	3265
UN No. (IMDG)	3265
UN No. (ICAO)	3265
UN No. (ADN)	3265

14.2. UN proper shipping name

GLYCOLIC ACID 70 E SOLUTION

Proper shipping name (ADR/RID)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS GLYCOLIC ACID, FORMIC ACID ...%)
Proper shipping name (IMDG)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS GLYCOLIC ACID, FORMIC ACID ...%)
Proper shipping name (ICAO)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS GLYCOLIC ACID, FORMIC ACID ...%)
Proper shipping name (ADN)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS GLYCOLIC ACID, FORMIC ACID ...%)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C3
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

IMDG Code segregation group	1. Acids
EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to
Annex II of MARPOL 73/78
and the IBC Code

Not applicable.

GLYCOLIC ACID 70 E SOLUTION

SECTION 15: Regulatory information

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

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

Restrictions (Annex XVII Regulation 1907/2006)

This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES. Entry number: 3, 72, 75

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

GLYCOLIC ACID 70 E SOLUTION

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Classification procedures according to Regulation (EC) 1272/2008

Acute Tox. 4 - H332, Skin Corr. 1 - H314: Calculation method., Weight of evidence.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

26/07/2022

GLYCOLIC ACID 70 E SOLUTION

Version number	3.000
Supersedes date	23/05/2022
SDS number	11136
SDS status	Approved.
Hazard statements in full	H226 Flammable liquid and vapour. H301 Toxic if swallowed. H302 Harmful if swallowed. H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H331 Toxic if inhaled. H332 Harmful if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H350 May cause cancer. H360FD May damage fertility. May damage the unborn child. EUH208 Contains FORMALDEHYDE. May produce an allergic reaction.
Signature	J Spenceley

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