

According to REACH Regulations (EC) 1907/2006 and (EU) 2020/878

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

1.1 Product identifier

Product code : GC4387
Product name : Glutaraldehyde solution, 50% in water
CAS number : 111-30-8
EINECS : 203-856-5
Physical form : liquid, mixture
REACH : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

PC21: Laboratory chemicals.

1.3 Details of the supplier of the safety data sheet

Company name	: Glentham Life Sciences Ltd	Telephone	: +44 (0) 1225 667 798
	Unit 5 Leaffield Way	Fax	: +44 (0) 2033 978 909
	Corsham SN13 9SW	Email	: info@glentham.com
	United Kingdom	Web	: www.glentham.com

1.4 Emergency telephone number

Emergency telephone : NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours), +44 (0) 1225 667 798 (09.00 – 17.00 GMT) number

2. Hazards identification

2.1 Classification of the substance or mixture

Classification under CLP according to (EC) 1272/2008

H301	Acute Tox. 3
H314	Skin Corr. 1B
H317	Skin Sens. 1
H318	Eye Dam. 1
H330	Acute Tox. 2
H334	Resp. Sens. 1
H411	Aquatic Chronic 2

2.2 Label elements

Label elements under CLP according to (EC) 1272/2008

Pictograms



GHS05 GHS06 GHS08 GHS09

Signal words

Danger

Hazard statements

H301	Toxic if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H411	Toxic to aquatic life with long lasting effects
EUH071	Corrosive to the respiratory tract.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P273	Avoid release to the environment.
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 or doctor/physician.

P264 Do not breathe fume.

P261 Avoid breathing vapors.

2.3 Other hazards

PBT

This substance is not identified as a PBT substance.

3.0 Composition/information on ingredients

3.2 Mixtures

Name	Identifier	%	Classification
Glutaraldehyde	CAS: 111-30-8 EC: REACH: Not applicable	50	H301, Acute Tox. 3 H314, Skin Corr. 1B H317, Skin Sens. 1A H330, Acute Tox. 2 H334, Resp. Sens. 1 H335, STOT SE 3 H400, Aquatic Acute 1 H411, Aquatic Chronic 2

4. First aid measures

4.1 Description of first aid measures

Skin contact	Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Remove all contaminated clothes and footwear immediately unless stuck to skin. Transfer to hospital if there are burns or symptoms of poisoning. Wash immediately with plenty of soap and water.
Eye contact	Transfer to hospital for specialist examination. Bathe the eye with running water for 15 minutes.
Ingestion	Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If conscious, give half a litre of water to drink immediately. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible. Wash out mouth with water.
Inhalation	If breathing becomes bubbly, have the casualty sit and provide oxygen if available. If conscious, ensure the casualty sits or lies down. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible. Consult a doctor. Remove casualty from exposure ensuring one's own safety whilst doing so.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact	Absorption through the skin may be fatal. Blistering may occur. Irritation or pain may occur at the site of contact. Progressive ulceration will occur if treatment is not immediate. There may be mild irritation at the site of contact. There may be redness or whiteness of the skin in the area of exposure.
Eye contact	Corneal burns may occur. May cause permanent damage. The eyes may water profusely. There may be irritation and redness. There may be severe pain.
Ingestion	Blood may be vomited. Convulsions may occur. Corrosive burns may appear around the lips. There may be bleeding from the mouth or nose. There may be irritation of the throat. There may be loss of consciousness. There may be soreness and redness of the mouth and throat. There may be vomiting.
Inhalation	Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. Exposure may cause coughing or wheezing. There may be irritation of the throat with a feeling of tightness in the chest. There may be loss of consciousness. There may be shortness of breath with a burning sensation in the throat. There may be vomiting.

Delayed / immediate effects

Convulsions may occur. Immediate effects can be expected after short-term exposure. There may be bleeding from the mouth or nose. There may be loss of consciousness.

4.3 Indication of any immediate medical attention and special treatment needed**Immediate / special treatment**

Do not induce vomiting. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. Eye bathing equipment should be available on the premises.

5. Fire-fighting measures**5.1 Extinguishing media**

Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2 Special hazards arising from the substance or mixture**Exposure hazards**

Corrosive. In combustion emits toxic fumes. Toxic.

5.3 Advice for fire-fighters

Wear protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus.

6. Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****Personal precautions**

Do not attempt to take action without suitable protective clothing - see section 8 of SDS. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Notify the police and fire brigade immediately. Turn leaking containers leak-side up to prevent the escape of liquid. Refer to section 8 of SDS for personal protection details.

6.2 Environmental precautions

Contain the spillage using bunding. Do not discharge into drains or rivers.

6.3 Methods and material for containment and cleaning up**Clean-up procedures**

Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Absorb into dry earth or sand.

6.4 Reference to other sections

Refer to section 8 of SDS.

7. Handling and storage**7.1 Precautions for safe handling****Handling requirements**

Avoid direct contact with the substance. Avoid the formation or spread of dust in the air. Do not handle in a confined space. Ensure there is exhaust ventilation of the area. Ensure there is sufficient ventilation of the area.

7.2 Conditions for safe storage, including any incompatibilities**Storage conditions**

Avoid contact with water or humidity. Keep container tightly closed. Store in cool, well ventilated area.

7.3 Specific end use(s)

No data available.

8. Exposure controls/personal protection**8.1 Control parameters****Workplace exposure limits**

Substance (CAS)	Control Parameter	Value	Notes	Source
Glutaraldehyde (111-30-8)	Long-term Exposure Limit (ppm)	0.05	Sen	UK HSE EH40/2005
	Long-term Exposure Limit (mg m ⁻³)	0.2		
	Short-term Exposure Limit (ppm)	0.05		
	Short-term Exposure Limit (mg m ⁻³)	0.2		

8.2 Exposure controls

Engineering measures	Ensure there is exhaust ventilation of the area. Ensure there is sufficient ventilation of the area.
Respiratory protection	Respiratory protective device with particle filter. Self-contained breathing apparatus must be available in case of emergency.
Hand protection	Impermeable gloves. Protective gloves.
Eye protection	Safety glasses with side-shields. Tightly fitting safety goggles. Ensure eye bath is to hand. Safety glasses.
Skin protection	Protective clothing.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Colourless
Odour	No data available.
Melting point/Freezing point	-6 °C
Boiling point/initial boiling point/boiling range	101 °C
Flammability	No data available.
Lower/Upper explosion limit	No data available.
Flash Point	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
pH	2.5 → 4.5
Kinematic viscosity	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water	No data available.
Vapour pressure	No data available.
Density/relative density	0.720
Relative vapour pressure	No data available.
Particle characteristics	No data available.

9.2 Other information

No data available.

10. Stability and reactivity

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions

Decomposition may occur on exposure to conditions or materials listed below. Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid

Flames. Hot surfaces. Heat.

10.5 Incompatible materials

Materials to avoid

Strong acids. Strong oxidising agents.

11. Toxicological information

11.1 Information on toxicological effects

a) **Acute toxicity**

Glutaraldehyde

4 hr LC50 Rat (Inhalation): >480 mg/m³

LD50 Rat (Oral): 134 mg/kg

LD50 Rat (Oral): 246 mg/kg

LD50 Rat (Oral): 315 mg/kg

LD50 Rat (Oral): 154 mg/kg

b) **Skin corrosion/irritation**

Skin corrosion/irritation (Category 1B)

c) **Serious eye damage/irritation**

Serious eye damage/eye irritation (Category 1)

d) **Respiratory or skin sensitisation**

Glutaraldehyde: Respiratory Sensitising (ECHA Property of Concern)

Sensitization, Skin (Category 1)

Glutaraldehyde: Skin Sensitising (ECHA Property of Concern)

e) **Germ cell mutagenicity**

No data available.

f) **Carcinogenicity**

No data available.

g) **Reproductive toxicity**

No data available.

h) **STOT-single exposure**

No data available.

i) **STOT-repeated exposure**

No data available.

j) **Aspiration hazard**

No data available.

11.2 Symptoms / routes of exposure

Skin contact	Absorption through the skin may be fatal. Blistering may occur. Irritation or pain may occur at the site of contact. Progressive ulceration will occur if treatment is not immediate. There may be mild irritation at the site of contact. There may be redness or whiteness of the skin in the area of exposure.
Eye contact	Corneal burns may occur. May cause permanent damage. The eyes may water profusely. There may be irritation and redness. There may be severe pain.
Ingestion	Blood may be vomited. Convulsions may occur. Corrosive burns may appear around the lips. There may be bleeding from the mouth or nose. There may be irritation of the throat. There may be loss of consciousness. There may be soreness and redness of the mouth and throat. There may be vomiting.
Inhalation	Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. Exposure may cause coughing or wheezing. There may be irritation of the throat with a feeling of tightness in the chest. There may be loss of consciousness. There may be shortness of breath with a burning sensation in the throat. There may be vomiting.
Delayed / immediate effects	Convulsions may occur. Immediate effects can be expected after short-term exposure. There may be bleeding from the mouth or nose. There may be loss of consciousness.
Other information	No data available.

12. Ecological information

12.1 Toxicity

No data available.

12.2 Persistence and degradability

Not biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation potential.

12.4 Mobility in soil

Readily absorbed into soil.

12.5 Results of PBT and vPvB assessment

This substance is not identified as a PBT substance.

12.6 Endocrine disrupting properties

This substance is not identified as having endocrine disrupting properties

12.7 Other adverse effects

No data available.

13. Disposal considerations

13.1 Waste treatment methods

Disposal operations

Transfer to a suitable container and arrange for collection by specialised disposal company.

NB

The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. Transport information

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN2922	UN2922	UN2922	UN2922	UN2922
14.2. UN proper shipping name				
CORROSIVE LIQUID, TOXIC, N.O.S.	CORROSIVE LIQUID, TOXIC, N.O.S.	Corrosive liquid, toxic, n.o.s.	CORROSIVE LIQUID, TOXIC, N.O.S.	CORROSIVE LIQUID, TOXIC, N.O.S.
Transport document description				
UN2922 CORROSIVE LIQUID, TOXIC, N.O.S. (GLUTARALD EHYDE SOLUTION, 50% IN WATER), 8 (6.1), III	UN2922 CORROSIVE LIQUID, TOXIC, N.O.S. (GLUTARALD EHYDE SOLUTION, 50% IN WATER), 8 (6.1), III	UN2922 Corrosive liquid, toxic, n.o.s. (Glutaraldehyde solution, 50% in water), 8 (6.1), III	UN2922 CORROSIVE LIQUID, TOXIC, N.O.S. (GLUTARALD EHYDE SOLUTION, 50% IN WATER), 8 (6.1), III	UN2922 CORROSIVE LIQUID, TOXIC, N.O.S. (GLUTARALD EHYDE SOLUTION, 50% IN WATER), 8 (6.1), III
14.3. Transport hazard class(es)				
8 (6.1)	8 (6.1)	8 (6.1)	8 (6.1)	8 (6.1)
14.4. Packing group				
III	III	III	III	III

14.5. Environmental hazards

No No No No No

15. Regulatory information

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

This Safety Data Sheet is prepared in accordance with Commission Regulation (EC) 1907/2006, amended by Commission Regulation (EU) 2020/787.

Authorisations/Restrictions

Regulation (EC) 1907/2006, REACH, Annex XIV list of substances subject to authorisation: No data available.

Regulation (EC) 1907/2006, REACH, Annex XVII restrictions on the manufacture, placing on the market and use of certain dangerous substances: No data available.

Regulation (EC) 1005/2009 on substances that deplete the ozone layer: No data available.

Regulation (EC) 850/2004 on persistent organic pollutants, amended by (EU) No 2019/1021: No data available.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

16. Other information

H-Statement Full Texts

H301 Toxic if swallowed
 H314 Causes severe skin burns and eye damage
 H317 May cause an allergic skin reaction
 H330 Fatal if inhaled
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 H335 May cause respiratory irritation
 H400 Very toxic to aquatic life
 H411 Toxic to aquatic life with long lasting effects

Abbreviations Full Texts

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
 ALARP As low as is reasonably practicable
 CAS Chemical Abstracts Service
 CLP Classification, Labelling and Packaging Regulations
 COSHH Control of Substances Hazardous to Health
 EC Number European Community Number
 EC50 Effective Concentration 50%
 EILINCS European List of Notified Chemical Substances
 EINECS European Inventory of Existing Commercial Chemical Substances
 GHS Globally Harmonised System
 HSE Health & Safety Executive UK
 IATA International Air Transport Association
 IM Intramuscular
 IMDG The International Maritime Dangerous Goods Code
 IP Intraperitoneal
 IV Intravascular
 LD50 Lethal Dose 50%
 LOEC Lowest Observable Effective Concentration
 LTEL Long Term Exposure Limit
 NOEC No Observable Effective Concentration
 OECD Organisation for Economic Cooperations and Development
 PBT Persistent Bioaccumulative Toxic
 PPE Personal Protective Equipment

REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
SC	Subcutaneous
SDS	Safety Data Sheet
STEL	Short Term Exposure Limit
STOT	Specific Target Organ Toxicity
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WEL	Workplace Exposure Limits

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