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

Catalogue Number	CS-T-78895
Product Name	Glyoxylic Acid (50% aqueous solution)
CAS No.	298-12-4
Category	Fine Chemicals
Synonyms	2-Oxoacetic acid (ACI); Acetic acid, oxo- (9CI); Glyoxylic acid (8CI); Carboxyformaldehyde
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Serious eye damage/eye irritation (Category 2)

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s)

Code	Statement
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H290	Not available

H319	Causes serious eye irritation.

Precautionary Statement(s)

Code	Statement
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264+P265	Not available
P272	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P354+P338	Not available
P317	Not available
P321	Specific treatment (see … on this label).
P333+P317	Not available
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio
P234	Not available
P390	Not available
P406	Not available
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if presen
P337+P317	If eye irritation persists: Get medical help.

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Glyoxylic Acid (50% aqueous solution)
CAS Number : 298-12-4
Molecular Formula : C2H2O3
Molecular Weight : 74.04
Parent Chemical : -
Synonyms : 2-Oxoacetic acid (ACI); Acetic acid, oxo- (9CI); Glyoxylic acid (8CI); Carboxyformaldehyde
Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures
General advice: Remove contaminated clothing and shoes. Seek medical attention if symptoms persist or are severe.
Inhalation: Move person to fresh air. Keep at rest. If breathing is difficult, seek medical attention.
Skin contact: Wash immediately with plenty of water. Seek medical attention if irritation, pain, or burns occur.
Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.
Ingestion: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed
May cause irritation and/or burns to eyes and skin. May cause respiratory irritation. Specific symptoms and delayed effects: Not available.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Specific antidote: Not available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire (e.g., water spray, alcohol-resistant foam, dry chemical, carbon dioxide).
Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
Thermal decomposition may produce irritating and/or toxic fumes. Specific hazardous combustion products: Not available.

5.3 Advice for firefighters
Wear self-contained breathing apparatus (SCBA) and full protective gear. Cool containers with water spray if exposed to fire. Prevent fire-fighting water from entering drains or waterways.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes. Avoid breathing mist/vapors. Provide adequate ventilation. Wear appropriate personal protective equipment.

6.2 Environmental precautions
Prevent entry into drains, sewers, or waterways. Notify authorities if release enters the environment.

6.3 Methods and material for containment and cleaning up
Contain spill. Absorb with inert material (e.g., sand, earth, vermiculite). Collect into suitable, labeled containers for disposal. Wash spill area with water after material pickup, as appropriate.

6.4 Reference to other sections
See Section 8 for personal protective equipment and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes and skin. Avoid breathing mist/vapors. Use with adequate ventilation. Do not eat, drink, or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities
Store in tightly closed container in a cool, well-ventilated place. Protect from contamination. Keep away from incompatible materials. Specific incompatibilities: Not available.

7.3 Specific end use(s)
Fine chemical / laboratory use. Specific uses: Not available.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limits: Not available.
Biological limit values: Not available.

8.2 Exposure controls
Engineering controls: Provide adequate general and/or local exhaust ventilation to control airborne levels.
Personal protective equipment (PPE):
- Eye/face protection: Safety goggles or chemical splash goggles; face shield as needed.
- Skin protection: Chemical-resistant gloves; protective clothing as appropriate.
- Respiratory protection: If ventilation is inadequate or mist/vapors are generated, use appropriate respiratory protection. Specific respirator type: Not available.
- Hygiene measures: Wash hands thoroughly after handling. Remove and wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available

Property	Value
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to avoid
Heat. Other conditions to avoid: Not available.

10.5 Incompatible materials
Not available.

10.6 Hazardous decomposition products
May produce irritating and/or toxic fumes upon decomposition. Specific decomposition products: Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: The renal pathology /was studied/ in a series of rats given ethylene glycol or its metabolites, including glyoxylic acid. In animals given single large doses of ethylene glycol (9 to 12 g/kg), striking oxalate formation was present in renal tubules. Crystals appeared throughout the proximal and distal convoluted tubules and were less numerous in the collecting tubules. In only one rat, oxalate crystals were present in the brain, as has also been reported in human poisoning. Oxalate crystals were also present in renal tubules of animals receiving glycol aldehyde, glycolic acid, and glyoxylic acid, although the renal oxalosis was less extensive with glycolaldehyde. The three proposed metabolites were all more toxic on an acute basis than was ethylene glycol since a number of animals died within eight hours of receiving 5 to 6 g/kg of body weight of the metabolites. Renal tubular pathology was not always accompanied by crystal formation, and the author concludes that cytotoxicity, rather than simple mechanical obstruction, is largely responsible for renal failure. For more Non-Human Toxicity Excerpts (Complete) data for GLYOXYLIC ACID (7 total), please visit the HSDB record page.
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: GLYOXYLIC ACID WAS NONMUTAGENIC IN SALMONELLA TYPHIMURIUM STRAINS TA98 & 100.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure
- Piridoxilate is given in cases of angina pectoris or arteritis. It is an intramolecular association of glyoxylic hemiacetal salts of pyridoxine. Glyoxylate has a membranous protective action; pyridoxine is used for the theoretical purpose of preventing oxidation of glyoxylic acid to oxalic acid. Twelve patients were observed with an active calcium oxalate lithiasis who had been taking piridoxilate for many years. Hyperoxaluria was present in all patients and decreased significantly when the drug was interrupted. Significant hyperoxaluria was also observed in volunteers after ingestion of piridoxilate (600 mg per day) or iv (200 mg). ...

Symptoms related to the physical, chemical and toxicological characteristics
- Not available.

SECTION 12: Ecological information

SECTION 12: Ecological information

12.1 Toxicity
No data available.

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
Not available.

12.6 Endocrine disrupting properties
Not available.

12.7 Other adverse effects
No data available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of contents/container in accordance with local/regional/national/international regulations.
Do not discharge to drains or the environment.
Waste treatment methods: Not available.
Contaminated packaging: Dispose of as unused product unless cleaned.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number
Not available.

14.2 UN proper shipping name
Not available.

14.3 Transport hazard class(es)
Not available.

14.4 Packing group
Not available.

14.5 Environmental hazards
Not available.

14.6 Special precautions for user
Not available.

14.7 Maritime transport in bulk according to IMO instruments
Not available.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Regulatory information: Not available.

SECTION 16: Other information

SECTION 16: Other information

Product name: Glyoxylic Acid (50% aqueous solution)
CAS No.: 298-12-4
Catalog No.: CS-T-78895
Synonyms: 2-Oxoacetic acid (ACI); Acetic acid, oxo- (9CI); Glyoxylic acid (8CI); Carboxyformaldehyde
Supplier: Clearsynth Labs Ltd., Mumbai, India
Emergency phone: +91-22-245045900

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Revision date: Not available

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