

Safety Data Sheet
according to 1907/2006/EC, Article 31

Revision: 27.02.2009

Printing date 27.02.2009

1 Identification of substance**Product details**

Trade name

Glyoxylic acid, 50% aqueous solution

Stock number:

B25149

Manufacturer/Supplier:

Zhonglan Industry Co.,Ltd.
11/F, Sangqing Fengrun BLDG, No.100 South Gongye Road,
City ihan China.

Office Tel: +86 (0) 531 88032799

Informing department:

Product safety department.

Emergency information:

Call Zhonglan chem 24 at +86 (0) 531 88031599

2 Hazards identification

Hazard designation:



C Corrosive

Information pertaining to particular dangers for man and environment

R 34 Causes burns.
R 43 May cause sensitisation by skin contact.

GHS label elements

Danger

3.2/1B - Causes severe skin burns and eye damage.

Warning

3.4/1 - May cause an allergic skin reaction.

Prevention:

Do not breathe dust/fume/gas/mist/vapours/spray.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.

Response:

Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see label).
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Storage:

Disposal:

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Glyoxylic acid (CAS# 298-12-4): 50%
Water (CAS# 7732-18-5): 50%**4 First aid measures**

General information

Instantly remove any clothing soiled by the product.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After inhalation

Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.

After skin contact

Seek immediate medical advice.
Rinse opened eye for several minutes under running water. Then consult doctor.

After eye contact

After swallowing

Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Special hazards caused by the material, its products of combustion or flue gases:

Can be released in case of fire:
Carbon monoxide and carbon dioxide
Wear self-contained breathing apparatus.
Wear full protective suit.

Protective equipment:

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation

Measures for environmental protection:

Measures for cleaning/collecting:

Do not allow material to be released to the environment without proper governmental permits.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.

Additional information:

See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.**7 Handling and storage**

Handling

Information for safe handling:

Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

No special measures required.

Storage Requirements to be met by storerooms and containers:

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

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(Contd. of page 1)

Further information about storage conditions:

Store away from strong bases.
Aqueous solutions are incompatible with alkali and alkaline earth metals and many reactive organic and inorganic chemicals.

Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Store in a locked cabinet or with access restricted to technical experts or their assistants.

8 Exposure controls and personal protection
Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with critical values that require monitoring at the workplace:

Not required.

Additional information:

No data

Personal protective equipment
General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.

Breathing equipment:

Use breathing protection with high concentrations.

Protection of hands:

Check protective gloves prior to each use for their proper condition.

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.

Eye protection:

Safety glasses
Tightly sealed safety glasses.
Full face protection

Body protection:

Face protection
Protective work clothing.

9 Physical and chemical properties:
General Information

Form: Viscous liquid
Colour: Colourless
Light yellow
Smell: Not determined

Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined
Sublimation temperature / start: Not determined

Flash point: Not determined

Ignition temperature: Not determined

Decomposition temperature: Not determined

Danger of explosion: Product is not explosive.

Critical values for explosion:

Lower: Not determined
Upper: Not determined

Steam pressure: Not determined

Density Not determined

Solubility in / Miscibility with Water: Fully miscible

10 Stability and reactivity
Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Materials to be avoided:

Aqueous solutions are incompatible with alkali and alkaline earth metals and many reactive organic and inorganic chemicals.
Oxidizing agents

Dangerous reactions:

Bases
Reacts with alkaline metals
Reacts with alkaline earth metals

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide

11 Toxicological information
**Acute toxicity:
Primary irritant effect:
on the skin:**

Caustic effect on skin and mucous membranes.
Irritant for skin and mucous membranes.
Strong caustic effect.
Irritant effect.

on the eye:

Sensitization possible by skin contact.

Sensitization:
**Other information (about experimental toxicology):
Additional toxicological information:**

Mutagenic effects have been observed on tests with bacteria.
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
May cause sensitisation by skin contact.

Sensitisation
12 Ecological information:
General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

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(Contd. on page 3)

Trade name **Glyoxylic acid, 50% aqueous solution**

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13 Disposal considerations

| | |
|------------------------------------|---|
| Product: | |
| Recommendation | Consult state, local or national regulations for proper disposal. Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. |
| Uncleaned packagings: | |
| Recommendation: | Disposal must be made according to official regulations. |
| Recommended cleaning agent: | Water, if necessary with cleaning agent. |

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

| | |
|--------------------------------|---|
| ADR/RID-GGVS/E Class: | 8 (C3) Corrosive substances. |
| Kemler Number: | 80 |
| UN-Number: | 3265 |
| Packaging group: | III |
| Label | 8 |
| Designation of goods: | 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (glyoxylic acid) |
| Limited quantities (LQ) | LQ7 |
| Transport category | 3 |
| Tunnel restriction code | E |

Maritime transport IMDG/GGVSea:

| | |
|--------------------------------|--|
| IMDG/GGVSea Class: | 8 |
| UN Number: | 3265 |
| Label | 8 |
| Packaging group: | III |
| Correct technical name: | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (glyoxylic acid) |

Air transport ICAO-TI and IATA-DGR:

| | |
|--------------------------------|--|
| ICAO/IATA Class: | 8 |
| UN/ID Number: | 3265 |
| Label | 8 |
| Packaging group: | III |
| Correct technical name: | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (glyoxylic acid) |
| UN "Model Regulation": | UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 8, III |

15 Regulatory information**Designation according to EC guidelines:****Code letter and hazard designation of product:**

C Corrosive

Risk phrases: 34 Causes burns.
43 May cause sensitisation by skin contact.

Safety phrases: 20 When using do not eat or drink.
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National regulations

Information about limitation of use: Employment restrictions concerning young persons must be observed.
For use only by technically qualified individuals.

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.