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**Material Safety Data Sheet**

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<b>Product Name</b>	<u>Glycine</u>
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**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identification:****Product Description:** Glycine**Cat No. :** 70721,10721,90721,82721,81721,91721,70721,20721,80721**Synonyms:** Aminoethanoic acid, Aminoacetic acid**CAS-No:** 56-40-6**EC-No.:** 200-272-2**Molecular Formula:** C<sub>2</sub>H<sub>5</sub>NO<sub>2</sub>

**REACH Registration No:** 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, or the registration is envisaged for a later registration deadline.

**1.2. Relevant identified uses of the substance or mixture and uses advised against:****Recommended Use:** Laboratory chemicals, manufacturing of substances**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**  
184-186/P, Chacharwadi Vasna,  
Sarkhej-Bavla Highway,  
Ta.: Sanand, Dist.: Ahmedabad,  
Email: [info@finarchemicals.com](mailto:info@finarchemicals.com)  
Web: [www.finarchemicals.com](http://www.finarchemicals.com)
- **E-Mail Address** [safety@finarchemicals.com](mailto:safety@finarchemicals.com); [info@finarchemicals.com](mailto:info@finarchemicals.com)

**1.4. Emergency Telephone Number:**

- For Emergency contact on: +91 - 2717 - 616 717
- Registered office No: +91 - 79 – 40040085

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**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture:**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008

**2.2. Label Elements:**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008

**CAS-No:** 56-40-6

**2.3. Other Hazards:**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances:** Glycine

**3.2. Mixtures:**

<b>Component</b>	<b>CAS-No</b>	<b>EC-No.</b>	<b>Weight %</b>
Glycine	56-40-6	200-272-2	>98.5

**SECTION 4: FIRST AID MEASURES**

**4.1. Description of first aid measures:**

- **General advice**

- **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

- **If Contact with skin**

Wash off with soap and plenty of water.

- **In case of eye contact**

Flush eyes with water as a precaution

- **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No information Available

**SECTION 5: FIREFIGHTING MEASURES**

**5.1. Extinguishing media:**

**Suitable Extinguishing Media-**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2. Special hazards arising from the substance or mixture:**

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>)

Combustible.

**5.3. Advice for firefighters:**

Wear self-contained breathing apparatus for firefighting if necessary

**5.4 Further Information:**

No information Available

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures:**

Avoid dust formation. Avoid breathing vapours, mist or gas.

For personal protection see section 8.

**6.2. Environmental precautions:**

No special environmental precautions required.

**6.3. Methods and material for containment and cleaning up:**

Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4. Reference to other sections:**

For disposal see Sections 13.

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**SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling:**

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

**7.2. Conditions for safe storage, including any incompatibilities:**

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

**7.3. Specific end use(s):**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters:**

**Components with workplace control parameters**

**8.2. Exposure Controls:**

**Appropriate Engineering Controls:**

General industrial hygiene practice.

**Personal Protective Equipment:**

**Eye & Face Protection-**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**- Hand Protection -**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

- Full contact            Material: Nitrile rubber
  - Minimum layer thickness: 0.11 mm
  - Break through time: 480 min
- Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

- Splash contact        Material: Nitrile rubber
  - Minimum layer thickness: 0.11 mm

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Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario

- **Body Protective-**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

- **Respiratory Protection-**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

- **Environmental Exposure Controls-**

No special environmental precautions required.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1. Information on basic physical and chemical properties:**

- **Appearance:** White
- **Physical State:** Crystalline powder
- **Odor:** odorless
- **Odor Threshold:** No data available
- **pH:** No data available
- **Melting Point:** 240°C
- **Critical Temperature:** No data available
- **Vapor Pressure:** No data available
- **Vapor Density:** No data available

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- **Relative Density:** 1.161 g/cm<sup>3</sup> at 20 °C
- **Auto-Ignition Temperature:** > 140 °C not auto-flammable
- **Decomposition Temperature:** >233°C
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Viscosity, dynamic:** No data available
- **Viscosity, Kinematic:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Partition Co-efficient: n-octanol/Water:** Bioaccumulation is not expected.
- **Ionicity (in Water):** No data available
- **Lower Explosion Limit:** No data available
- **Upper Explosion Limit:** No data available
- **Boiling Point/Range:** No data available
- **Flash Point:** No data available
- **Bulk Density:** 1.000 kg/m<sup>3</sup>
- **Water Solubility:** 250 g/l at 25 °C - soluble
- **Molecular Weight:** 75.07 g/mol

### 9.2. Other information:

**Molecular Formula:** C<sub>2</sub>H<sub>5</sub>NO<sub>2</sub>

## 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:

No data available

### 10.5. Incompatible materials:

Strong oxidizing agents

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**10.6. Hazardous decomposition products:**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO<sub>x</sub>)

Other decomposition products - No data available.

In the event of fire: see section 5

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute Oral toxicity**

LD50 Oral - Rat - 7.930 mg/kg

Remarks: (RTECS)

**Acute inhalation toxicity**

No data available

**Acute dermal toxicity**

No data available

**Skin irritation**

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

**Eye irritation**

Eyes - Rabbit

Result: No eye irritation - 72 h

(OECD Test Guideline 405)

**Sensitisation**

Local lymph node assay (LLNA) – Mouse

Result: negative

(OECD Test Guideline 429)

**Germ cell mutagenicity**

In vitro mammalian cell gene mutation test

Mouse lymphoma test

Result: negative

**Carcinogenicity**

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IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

**Reproductive toxicity**

No data available

**Teratogenicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Further Information:**

RTECS: MB7600000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## **SECTION 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity:****Toxicity to fish**

Static test LC50 - *Oryzias latipes* (Orange-red killifish) - > 1.000 mg/l - 96 h  
(OECD Test Guideline 203 )

**Toxicity to daphnia and other aquatic invertebrates**

Semi-static test EC50 - *Daphnia magna* (Water flea) - > 220 mg/l - 48 h  
(OECD Test Guideline 202)

**Toxicity to algae**

Static test EC50 - *Pseudokirchneriella subcapitata* (green algae) - > 1.000 mg/l - 72 h  
(OECD Test Guideline 201)

**Toxicity to bacteria**

Static test NOEC - activated sludge - >= 100 mg/l - 14 d Remarks: (ECHA)



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**12.2 Persistence and degradability:**

Biodegradability            Aerobic - Exposure time 14 d  
 Result: 76 - 82 % - Readily biodegradable.  
 (OECD Test Guideline 301C)

**12.3 Bioaccumulate potential:**

Bioaccumulation is unlikely.

**12.4 Mobility in soil:**

No data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects:**

No data available

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information**

	<b>Land transport (ADR/RID)</b>	<b>Air transport (IATA)</b>	<b>Sea transport (IMDG)</b>
<b>14.1 UN number</b>	--		
<b>14.2 Proper shipping name</b>	Not dangerous goods		
<b>14.3 Class</b>	--		
<b>14.4 Packing group</b>	--		
<b>14.5 Environmentally hazardous</b>	No		
<b>14.6 Special precautions for user</b>	No data available		

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**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
 Not Relevant

**SECTION 15: Regulatory information**

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16: Other information**

**References:** Not available

**Created:** 20/04/2020

**Disclaimer:**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Finar Limited be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Finar Limited has been advised of the possibility of such damages.