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

· 1.1 Product identifier
  · Product name: Glycine
  · Catalog number: 00512171, (4)512170BT, (4)512171BT, 502171, 00512170BT, 00512179BT

· 1.2 Relevant identified uses of the substance or mixture and uses advised against
  · Application of the substance / the preparation: Reagent for water analysis

· 1.3 Details of the supplier of the safety data sheet
  · Supplier:
    Tintometer GmbH
    Schleefstraße 8-12
    44287 Dortmund
    Made in Germany
    www.lovibond.com

  Tintometer GmbH
  Division AQUALYTIC®
  Schleefstr. 12
  44287 Dortmund
  Made in Germany
  www.aqualytic.de

  The Tintometer Limited
  Lovibond® House
  Sun Rise Way
  Amesbury
  Wiltshire SP4 7GR
  United Kingdom

  · Informing department:
    e-mail: sds@tintometer.de
  Product Safety Department

· 1.4 Emergency telephone number:
  +44 1235 239670
  Languages: English

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture
  · Classification according to Regulation (EC) No 1272/2008
    The product is not classified as hazardous according to the CLP regulation.

· 2.2 Label elements
  · Labelling according to Regulation (EC) No 1272/2008 Void
  · Hazard pictograms Void
  · Signal word Void
  · Hazard statements Void

· 2.3 Other hazards
  No further relevant information available.

· Results of PBT and vPvB assessment
  This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.
SECTION 3: Composition/information on ingredients

· 3.2 Mixtures
  · Description: Mixture contains organic compounds.
  · Dangerous components: Void
  · Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures
  · General information Instantly remove any clothing soiled by the product.
  · After inhalation Supply fresh air.
  · After skin contact Instantly wash with water and soap and rinse thoroughly.
  · After eye contact Rinse opened eye for several minutes under running water (at least 15 min). If symptoms persist, consult doctor.
  · After swallowing Rinse out mouth and then drink 1-2 glasses of water.
  · After swallowing of large amounts:
    thirst
    sickness
    diarrhoea

· 4.2 Most important symptoms and effects, both acute and delayed:
  after swallowing of large amounts:
  thirst
  sickness
  diarrhoea

· 4.3 Indication of any immediate medical attention and special treatment needed: No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media
  · Suitable extinguishing agents Water, Carbon dioxide (CO₂), Foam, Fire-extinguishing powder
  · Special hazards arising from the substance or mixture combustible
  · Formation of toxic gases is possible during heating or in case of fire.
  · Can be released in case of fire:
    nitrous gases
    Sulphur oxides (SOx)
    Nitrogen oxides (NOx)
    Carbon monoxide (CO) and carbon dioxide (CO₂)

· 5.3 Advice for firefighters
  · Protective equipment:
    Wear self-contained breathing apparatus.
    Wear full protective suit.
  · Additional information
    Collect contaminated fire fighting water separately. It must not enter drains.
    Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
    Ambient fire may liberate hazardous vapours.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures
  · Advice for non-emergency personnel: No special measures required.
  · Advice for emergency responders: Protective equipment: see section 8

· 6.2 Environmental precautions: Do not allow product to reach sewage system or water bodies.

· 6.3 Methods and material for containment and cleaning up:
  Ensure adequate ventilation.
  Collect mechanically.
  Dispose of contaminated material as waste according to item 13.

· 6.4 Reference to other sections
  See Section 8 for information on personal protection equipment.
SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Advice on safe handling: No special precautions necessary if used correctly.
- Hygiene measures:
  The usual precautionary measures should be adhered to general rules for handling chemicals.
  Wash hands during breaks and at the end of the work.
  Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities
- Storage
  Requirements to be met by storerooms and containers: Store in cool location.
  Information about storage in one common storage facility: Not required.
  Further information about storage conditions:
  Protect from heat and direct sunlight.
  Protect from the effects of light.
  Store under dry conditions.
  Protect from humidity and keep away from water.
- Recommended storage temperature: 20°C ± 5°C
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- Components with limit values that require monitoring at the workplace:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the compilation were used as basis.

8.2 Exposure controls
- Engineering measures:
  Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
  See item 7.
- Personal protective equipment
  Breathing equipment: Use breathing protection against the effects of fumes/dust/aerosol.
  Recommended filter device for short term use: Filter P1
  Protection of hands:
  Preventive skin protection by use of skin-protecting agents is recommended.
  After use of gloves apply skin-cleaning agents and skin cosmetics.
- Material of gloves
  nitrile rubber, NBR
  Recommended thickness of the material: ≥ 0.11 mm
  Penetration time of glove material
  Value for the permeation: Level = 1 ( < 10 min )
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection:
  Safety glasses
  use against the effects of fumes / dust
- Body protection: Protective work clothing.
- Limitation and supervision of exposure into the environment: Do not allow product to reach sewage system or water bodies.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
- Appearance:
  Form / Physical state: Tablets
  Colour: White
- Odour: Odourless
### Safety data sheet

**Product name:** Glycine

---

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH-value (10 g/l) at 20°C</td>
<td>5.8</td>
</tr>
<tr>
<td>Melting point/Freezing point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Product is not self-igniting.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>The product is not capable of dust explosion in the form supplied; enrichment with fine dust causes risk of dust explosion</td>
</tr>
<tr>
<td>Flammability or explosive limits</td>
<td>Lower: Not determined. Upper: Not determined.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>none</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Density at 20°C</td>
<td>1.48 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Water: Soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solvent content</td>
<td>Organic solvents: 0.0 % Solids content: 100.0 %</td>
</tr>
<tr>
<td>9.2 Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

---

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Risk of dust explosion
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions**
  - Reacts with alkali (lyes)
  - Reacts with strong oxidizing agents
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials**: No further relevant information available.
- **10.6 Hazardous decomposition products:** see section 5

---

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
  - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** The following statements refer to the mixture:
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.
Product name: Glycine

- STOT (specific target organ toxicity) -repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.
- Additional toxicological information:
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

SECTION 12: Ecological information

- 12.1 Toxicity
  - Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
  This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.
- 12.6 Other adverse effects
  - Water hazard:
    Do not allow product to reach ground water, water bodies or sewage system. Danger to drinking water if even small quantities leak into soil.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

  - European waste catalogue
    16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.
  - Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information

- 14.1 UN-Number
  - ADR, IMDG, IATA Void

- 14.2 UN proper shipping name
  - ADR, IMDG, IATA Void

- 14.3 Transport hazard class(es)
  - ADR, IMDG, IATA Void

- 14.4 Packing group
  - ADR, IMDG, IATA Void

- 14.5 Environmental hazards: Not applicable.

- 14.6 Special precautions for user Not applicable.

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

- Transport/Additional information: Not dangerous according to the above specifications.
Product name: Glycine

SECTION 15: Regulatory information

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

- Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:
  None of the ingredients is listed.

- Directive 2012/18/EU (SEVESO III):
  - Named dangerous substances - ANNEX I None of the ingredients is listed.

- Information about limitation of use: Not required.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Training hints: Provide adequate information, instruction and training for operators.

- Abbreviations and acronyms:
  - EC50: half maximal effective concentration
  - IC50: half maximal inhibitory concentration
  - NOEL or NOEC: No Observed Effect Level or Concentration
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - STOT: specific target organ toxicity
  - SE: single exposure
  - RE: repeated exposure

- Sources: Data arise from safety data sheets, reference works and literature.