



# MATERIAL SAFETY DATA SHEET (MSDS)

## BETAINE ANHYDROUS

### Section 1 - Chemical Product and Company Identification

**Product name:** BETAINE ANHYDROUS 96%  
BETAINE ANHYDROUS 98%

**MSDS Name:** Betaine

**Synonyms:** Trimethylglycine, Oxyneurine

**Chemical molecular formula:** C<sub>5</sub>H<sub>11</sub>NO<sub>2</sub>

**Chemical molecular weight:** 117.15

#### ➤ Company Identification:

**Supplier:** TAIAN HAVAY CHEMICALS CO., LTD

**Address:** Tai'an Dawenkou Gypsum Industry Park, Shandong, China

**Tel number:** +86-25-8478 8580

**Fax number:** +86-25-8478 8596

**Website:** <http://www.goldenhighway.com>

**E-mail:** [cc@goldenhighway.com](mailto:cc@goldenhighway.com)

### Section 2 - Composition and Information on Ingredients

CAS No.	Chemical Name	Content %	Einecs/Elincs
107-43-7	Betaine	96 MIN	203-490-6

### Section 3 - Hazards Identification

#### Emergency overview:

Caution! Hygroscopic (absorbs moisture from the air).

The toxicological properties of this material have not been fully investigated.

May cause eye, skin and respiratory tract irritation.

**Target Organs:** None known.

#### Potential Health Effects

**Eye:** ✧ May cause eye irritation.

**Skin:** ✧ May cause skin irritation. May be harmful if absorbed through the skin.

**Ingestion:** ✧ May cause irritation of the digestive tract. May be harmful if swallowed.

**Inhalation:** ✧ May cause respiratory tract irritation. May be harmful if inhaled.

**Chronic:** ✧ No information found.

### Section 4 - First Aid Measures

**Eyes:** ✧ Immediately flush eyes with plenty of water for at least 15



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minutes, occasionally lifting the upper and lower eyelids.

**Skin:**

- ✧ If irritation developed, get medical aid immediately.
- ✧ Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- ✧ Get medical aid if irritation develops or persists.

**Ingestion:**

- ✧ Do not induce vomiting.
- ✧ Get medical aid if irritation or symptoms occur.

**Inhalation:**

- ✧ Remove from exposure and move to fresh air immediately.
- ✧ If not breathing, give artificial respiration.
- ✧ If breathing is difficult, give oxygen.
- ✧ Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective gear.

**Extinguishing Media:** Water spray, Dry chemical, CO<sub>2</sub>, Chemical Foam

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower/Upper:** Not available.

## Section 6 - Accidental Release Measures

**General Information:** ✧ Use proper personal protective equipment as indicated in Section 8.

- Spills/Leaks:**
- ✧ Vacuum or sweep up material and place into a suitable clean, dry, closed container for disposal.
  - ✧ Avoid generating dusty conditions.
  - ✧ Provide ventilation.
  - ✧ Do not let this chemical enter the environment.

## Section 7 - Handling and Storage

- Handling:**
- ✧ Use with adequate ventilation.
  - ✧ Minimize dust generation and accumulation.
  - ✧ Avoid contact with eyes, skin and clothing.
  - ✧ Avoid ingestion and inhalation.

- Storage:**
- ✧ Store in a cool, dry place.
  - ✧ Store in a tightly closed container.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep

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airborne concentrations low.

**Exposure Limits:** None listed.

## Personal Protective Equipment

**Eyes:** Wear appropriate protective eye glasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

<b>Product:</b>	<b>Betaine</b>
<b>Physical State:</b>	Solid
<b>Appearance:</b>	White powder
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>
<b>Molecular Weight:</b>	117.15
<b>Odor:</b>	Slight characteristic odor
<b>pH:</b>	5-7 (5% aq. Sol.)
<b>Boiling Point:</b>	Not available
<b>Freezing/Melting point:</b>	301 °C (537.8°F)
<b>Decomposition Temperature:</b>	Not available
<b>Vapor Pressure:</b>	Not available
<b>Vapor Density:</b>	Not available
<b>Evaporation Rate:</b>	Not available
<b>Viscosity:</b>	Not available

## Section 10 - Stability and Reactivity

**Chemical Stability:** ✧ Hygroscopic: absorbs moisture or water from the air.

**Conditions to Avoid:** ✧ Incompatible materials, dust generation, exposure to moist air or water.

**Incompatibilities with Other Materials:** ✧ Strong oxidizing agents, trimethylamine.

**Hazardous Decomposition Products:** ✧ Nitrogen oxides, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** ✧ Will not occur.

## Section 11 - Toxicological Information



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- RTECS#:**                    ✧ CAS#107-43-7: DS5900000  
**LD<sub>50</sub>/LC<sub>50</sub>:**                ✧ RTECS: Not available.  
**Carcinogenicity:**           ✧ Not listed as a carcinogen by ACGIH, IARC, NTP or CA Prop 65.  
**Other:**                        ✧ See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

**Ecotoxicity:**                    Not available.

**BOD5 and COD:**                Not available.

### **Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

### **Toxicity of the Products of Biodegradation:**

The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:**    Not available.

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state and local regulations.

## Section 14 - Transport Information

**US DOT:**                        ✧ Not regulated as a hazardous material.

**Canada TDG:**                   ✧ Not available.

## Section 15 - Regulatory Information

### **European/International Regulations:**

**Hazard Symbols:**                    ✧ XN.

### **Risk Phrases:**

✧ R20/21/22    Harmful by inhalation, in contact with skin and if swallowed.

✧ R36/37/38    Irritating to the eyes, skin and the respiratory system.

### **Safety Phrases:**

✧ S 24/25 Avoid contact with skin and eyes.

✧ S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

✧ S 36 Wear suitable protective clothing.

**WGK (Water Danger/Protection):**    ✧ 3

### **Canada Regulations:**

**DSL:**                                    ✧ Listed on the DSL list.

**WHMIS:**                               ✧ Not controlled under WHMIS (Canada).

### **U.S. Federal Regulations:**

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**TSCA:**

✧ Listed on the TSCA inventory.

## **Section 16 - Additional Information**

**MSDS Creation Date:** Apr 2, 2015

