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

### 1.1 Product identifiers

**Product Name** : Betaine hydrochloride

**Catalogue Number** : CS-O-11608

**Brand** : Clearsynth Labs Ltd.

**REACH No.** : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

### 1.2 Relevent identified uses of the substance or mixture and uses advised against

**Identified uses** : Laboratory Chemicals, Manufacture of substances

### 1.3 Details of the supplier of the safety data sheet

**Company** : Clearsynth Labs Ltd.
17, Lotus Business Park,
New Link Road, Andheri (W),
Mumbai-400053, INDIA

### 1.4 Emergency telephone number

**Emergency Phone #** : +91-22-245045900

## SECTION 2: Hazards identification

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

H318 Serious eye damage (Category 1)
For the full text of the H-Statements mentioned in this Section, see Section 16

### 2.2 Label Elements

Danger



**Hazard Statement(s)**

H318 Causes serious eye damage.

**Precautionary Statements**

P280 Wear eye protection/ face protection.

P305 + P351 + P338 +P310 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/ doctor.

**Other Hazards -**

No data Available

## SECTION 3: Composition / information on ingredients

**3.1 Mixtures**

**Molecular weight** : 153.61 (g/mol)

| Component | Classification | Concentration |
|---|---|---|
| **Betaine hydrochloride** | | |
| **CAS Number** : 590-46-5<br>**Molecular Formula** : $C_5H_{12}ClNO_2$<br>**EC - No.** : 209-683-1 | | |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

**4.1 Description of First Aid Measures**

**General Advice:**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If Inhaled:**

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

**In Case of Skin Contact:**

Wash off with soap and plenty of water. Consult a physician.

**In Case of Eye Contact:**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If Swallowed:**

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

**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 data 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 From Arising From Substance or mixture**

During a fire,irritating & highly toxic gases may be generated by thermal decomposition or combustion.

**5.3 Advice For Firefighters**

Wear self-contained breathing appratus & full protective gear to prevent contact with skin & eyes.

**5.4 Further information**

Use water spray to cool unopened containers.

## SECTION 6: Accidental release measures

**6.1 Personal Precautions, Protective Equipment And Emergency Procedures**

Wear respiratory protection. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas.

Beware of vapours accumulating to form explosive concentrations.

Vapours can accumulate in low areas.

For personal protection see section 8.

**6.2 Environmental Precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains or water sources.

**6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

**6.4 Reference to other sections**

For disposal see section 13.

## SECTION-7: HANDLING AND STORAGE

**7.1 Precautions For Safe Handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.
For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Recommended storage temperature Store at refrigerator (2-8°C) for long term storage.

**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**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Personal Protective Equipment**

**Eyes / face protection:**

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

**Skin 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.

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 Protection:**

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| **a) Physical State** | : | solid |
| **b) Color** | : | White crystalline |
| **c) Odor** | : | No data Available |
| **d) pH** | : | No data Available |
| **e) Vapour Pressure** | : | No data Available |
| **f) Viscosity** | : | No data Available |
| **g) Inital Boiling Point and boiling range** | : | No data Available |
| **h) Melting Point / Freezing Point** | : | 241 - 242 °C - lit. |
| **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** | : | Soluble in water |
| **q) Oxidizing Properties** | : | No data Available |

### 9.2 Other Safety Information

No Data Available

## 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 Condition to Avoid**

Heat, flames and sparks. Extremes of temperature and direct sunlight.

**10.5 Incompatibilities with Other Materials**

Strong oxidizing agents, strong bases.

**10.6 Hazardas Decomposition Products**

No data available.

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## SECTION 11: Toxicological information

**11.1 Information on Toxicological Effects**

**Acute Toxicity**

LD50 Oral - Rat - male and female - > 11.179 mg/kg

**Skin Irritation/Corrosion**

Skin - human skin

Result: No skin irritation

**Eye Damage/Irritation**

Causes serious eye damage.

**Respiratory or Skin Sensitization**

Local lymph node assay (LLNA) - Mouse

Result: negative

**Germ Cell Mutagenicity**

Test Type: Ames test

Result: negative

**Carcinogenicity**

No data Available

**Reproductive Toxicity**

No data Available

**Routes of Exposure**

Inhalation,Ingestion,Skin,Eyes

**Toxic Effects on Humans**

Toxicity to daphnia and other aquatic invertebrates: static test EC50 - Daphnia magna (Water flea) - < 4.335 mg/l - 48h

Toxicity to algae : static test ErC50 - Desmodesmus subspicatus (green algae) - <1.199 mg/l - 72 h

**Additional Information**

No data Available

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates: static test EC50 - Daphnia magna (Water flea) - < 4.335 mg/l - 48h
Toxicity to algae : static test ErC50 - Desmodesmus subspicatus (green algae) - <1.199 mg/l - 72 h

### 12.2 Persistence and degradability

Biodegradability aerobic
Result: < 88 % - Readily biodegradable.

### 12.3 Bioaccumulative potential

No data Available

### 12.4 Mobility in soil

No data Available

### 12.5 Results of PBT and vPvB assessment

No data Available

### 12.6 Other adverse effects

No data Available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

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## SECTION 14: Transport information

**14.1 UN Number :**

| | |
|---|---|
| DOT (US) | N/A |
| IATA | N/A |
| IMDG | N/A |
| ADR/RID | N/A |

**14.2 UN Proper Shipping Name :**

| | |
|---|---|
| DOT (US) / IATA | Not dangerous goods |
| IMDG / ADR / RID | Not dangerous goods |

**14.3 Transport Hazard Class (es) :**

| | |
|---|---|
| DOT (US) | N/A |
| IATA | N/A |
| IMDG | N/A |
| ADR/RID | N/A |

**14.4 Packing Group :**

| | |
|---|---|
| DOT (US) | N/A |
| IATA | N/A |
| IMDG | N/A |
| ADR/RID | N/A |

**14.5 Environmental Hazards :**

| | |
|---|---|
| DOT (US) | None |
| IATA | None |
| IMDG | None |
| ADR/RID | None |

**14.6 Special precautions for user**

No data available

**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.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) :

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

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**SECTION 16: Other information**

**Full text of H-Statements referred to under sections 2 and 3.**

H318 Causes serious eye damage.

## Further Information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. 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 way shall the company 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 the company has been advised of the possibility of such damages.