

<b>Material Safety Data Sheet</b>	
<b>TRIBUTYLAMINE FOR SYNTHESIS 99%</b>	<b>VERSION : 02</b> <b>DATE OF ISSUE : 26-08-2019</b> <b>SUPERSEDES : 01</b>
<b>Product Code : 60650</b>	<b>Page 1 of 9</b>

## **1. Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

**Trade name :** TRIBUTYLAMINE FOR SYNTHESIS 99%

**Product code :** 60650

**Identification of the product :** TRIBUTYLAMINE 99%

CAS No :102-82-9

### **1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use :** Industrial. For professional use only.

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

**Company identification :** MOLYCHEM

Office: 78/80 Babu Genu Road, Souris Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.

Email : [info@molychem.net](mailto:info@molychem.net)

Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503.

### **1.4. Emergency telephone number**

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm).

## **2. Hazards identification -DSD**

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

**Classification EC 67/548 or EC 1999/45**

**Classification :** T; R23/24

Xn; R22

Xi; R38

**Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)**

**Health hazards :** Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3)

H311

Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315

Acute toxicity, Inhalation - Category 3 - Danger (CLP : Acute Tox. 3) H331

Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302

### **2.2. Label elements**

**Labelling EC 67/548 or EC 1999/45**

**Symbol(s) :** T : Toxic



**R Phrase(s) :** R22 : Harmful if swallowed.

R23/24 : Toxic by inhalation and in contact with skin.

R38 : Irritating to skin.

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**S Phrase(s)** : S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37 : Wear suitable protective clothing and gloves.

S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

## Labelling Regulation EC 1272/2008 (CLP)

### Hazard pictograms



**Signal words** : Danger

**Hazard statements** : H311 : Toxic in contact with skin.

H331 : Toxic if inhaled.

H302 : Harmful if swallowed.

H315 : Causes skin irritation.

### Precautionary statements

• **Prevention** : P280: Wear protective gloves, protective clothing, eye protection, face protection.

P271: Use only outdoors or in a well-ventilated area.

P261: Avoid breathing dust, fume, gas, mist, vapours, spray.

P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

• **Response** : P302+P352: IF ON SKIN : Wash with plenty of soap and water.

P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell.

P332+P313: If skin irritation occurs : Get medical advice.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

P363: Wash contaminated clothing before reuse.

P361: Remove immediately all contaminated clothing.

• **Storage** : P403+P233: Store in well-ventilated place. Keep container tightly closed.

P405: Store locked up.

• **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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### **2.3. Other hazards**

**Other hazards :** The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

### **3. Composition/information on ingredients**

**Substance / Preparation :** TRIBUTYLAMINE 99%

CAS No :102-82-9

Substance.

Contains no other components or impurities which will influence the classification of the product.

### **4. First aid measures**

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

**Inhalation :** Assure fresh air breathing. Allow the victim to rest. Specific treatment (see on this label). Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.

**Skin contact :** Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. If skin irritation occurs : Get medical advice. Wash contaminated clothing before reuse.

**Eye contact :** Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

**Ingestion :** Obtain emergency medical attention. Call a POISON CENTER or doctor if you feel unwell. Do NOT induce vomiting. Rinse mouth.

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

**Symptoms relating to use :** Repeated exposure to this material can result in absorption through skin causing significant health hazard. Danger of serious damage to health by prolonged exposure through inhalation. Causes skin irritation. Swallowing a small quantity of this material will result in serious health hazard.

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

**General information :** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

### **5. Fire-fighting measures**

#### **5.1. Extinguishing media**

**Suitable extinguishing media :** Foam. Dry powder. Carbon dioxide. Water spray. Sand.

**Unsuitable extinguishing media :** Do not use a heavy water stream.

**Surrounding fires :** Use water spray or fog for cooling exposed containers.

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

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**Hazardous combustion products :** Under fire conditions, hazardous fumes will be present.

### **5.3. Advice for fire-fighters**

**Protection against fire :** Do not enter fire area without proper protective equipment, including respiratory protection.

**Special procedures :** Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

## **6. Accidental release measures**

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

**For emergency responders :** Equip cleanup crew with proper protection.

Ventilate area.

**For non-emergency personnel :** Evacuate unnecessary personnel.

### **6.2. Environmental precautions**

**Environmental precautions :** Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

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

**Clean up methods :** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

### **6.4. Reference to other sections**

See section 8. Exposure controls/personal protection

## **7. Handling and storage**

### **7.1. Precautions for safe handling**

**Handling :** Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, vapours, spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Wash thoroughly after handling.

**Technical protective measures :** Provide good ventilation in process area to prevent formation of vapour.

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

**Storage :** Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.

**Storage - away from :** Strong bases. Strong acids. Sources of ignition. Direct sunlight.

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

**Specific end use(s) :** None.

## **8. Exposure controls/personal protection**

### **8.1. Exposure controls**

**Personal protection :** Avoid all unnecessary exposure.

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• **Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.

• **Hand protection** : Wear protective gloves.

• **Skin protection** : Wear suitable protective clothing.

• **Eye protection** : Chemical goggles or safety glasses.

• **Others** : When using, do not eat, drink or smoke.

## 8.2. Control parameters

**Occupational Exposure Limits** : No data available.

## 9. Physical and chemical properties

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

**Physical state at 20 °C** : Liquid.

**Odour threshold** : No data available.

**pH value** : No data available.

**Melting point [°C]** : -70°C

**Decomposition point [°C]** : N/A

**Critical temperature [°C]** : N/A

**Auto-ignition temperature [°C]** : 210°C

**Flammability (solid, gas)** : N/A

**Flash point [°C]** : 63°C

**Boiling point [°C]** : 216.5°C

**Initial boiling point [°C]** : N/A

**Final boiling point [°C]** : N/A

**Evaporation rate** : N/A

**Vapour pressure [20°C]** : 0.3 mm of Hg (@ 20°C)

**Vapour pressure mm/Hg** : 0.3 mm of Hg (@ 20°C)

**Vapour density** : 6,38

**Density [g/cm3]** : 0,7782

**Relative density, gas (air=1)** : N/A

**Relative density, liquid (water=1)** : N/A

**Solubility in water [% weight]** : Sparingly soluble in

**Solubility in water** : N/A

**Log Pow octanol / water at 20°C** : No data available.

**Solubility** : Strong alkalis.

**Viscosity at 40°C [mm2/s]** : N/A

## 9.2. Other information

**Explosive properties** : N/A

**Explosion limits - upper [%]** : 6%

**Explosion limits - lower [%]** : 1,40%

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**Oxidising properties** : No data available.

## **10. Stability and reactivity**

### **10.1. Reactivity**

**Reactivity** : Not established.

### **10.2. Chemical stability**

**Chemical stability** : Stable under recommended storage conditions.

### **10.3. Possibility of hazardous reactions**

**Hazardous reactions** : Not established.

### **10.4. Conditions to avoid**

**Conditions to avoid** : Direct sunlight. Extremely high or low temperatures.

### **10.5. Incompatible materials**

**Materials to avoid** : Strong acids. Strong bases.

### **10.6. Hazardous decomposition products**

**Hazardous decomposition products** : Fumes. Carbon monoxide. Carbon dioxide.

## **11. Toxicological information**

### **11.1. Information on toxicological effects**

#### **Acute toxicity**

- **Inhalation** : Toxic if inhaled.
- **Dermal** : Toxic in contact with skin.
- **Ingestion** : Harmful if swallowed.

**Corrosion** : Based on available data, the classification criteria are not met.

**Irritation** : Causes skin irritation.

**Sensitization** : Based on available data, the classification criteria are not met.

**Mutagenicity** : Based on available data, the classification criteria are not met.

**Carcinogenicity** : Based on available data, the classification criteria are not met.

**Toxic for reproduction** : Based on available data, the classification criteria are not met.

**STOT-single exposure** : Based on available data, the classification criteria are not met.

**STOT-repeated exposure** : Based on available data, the classification criteria are not met.

**Aspiration hazard** : Based on available data, the classification criteria are not met.

## **12. Ecological information**

### **12.1. Toxicity**

**Toxicity information** : Not established.

### **12.2. Persistence - degradability**

**Persistence - degradability** : Biodegradable.

### **12.3. Bioaccumulative potential**

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**Bioaccumulative potential** : Not established.

## 12.4. Mobility in soil

**Mobility in soil** : Not established.

## 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

## 12.6. Other adverse effects

**Environmental precautions** : Avoid release to the environment.

## 13. Disposal considerations

### 13.1. Waste treatment methods

**General** : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Special precautions** : Hazardous waste due to toxicity.

## 14. Transport information

### 14.1. Land transport (ADR-RID)

**Proper shipping name** : TRIBUTYLAMINE

UN N° : 2542

**H.I. nr** : 60

**ADR - Class** : 6.1

**Labelling - Transport** : 6.1 : Toxic substances.

LÉ

**ADR - Classification code** : T1

**ADR - Group** : II

**ADR - Packing instructions** : P001

**ADR - Limited Quantity** : 100 ML

**ADR - Tunnel code** : D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

### 14.2. Sea transport (IMDG) [English only]

**Proper shipping name** : TRIBUTYLAMINE

UN N° : 2542

**IMO-IMDG - Class or division** : 6.1 : Toxic substances.

**IMO-IMDG - Packing group** : II

**IMO- IMDG - Packing instructions** : P001

**IMO-IMDG - Limited quantities** : 100 ml

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**IMO-IMDG - Marine pollution : No**

**EMS-Nr : F-A S-A**

**14.3. Air transport (ICAO-IATA) [English only]**

**Proper shipping name : TRIBUTYLAMINE**

**UN N° : 2542**

**IATA - Class or division : 6.1 : Toxic substances.**

**IATA - Packing group : II**

**IATA - Passenger and Cargo Aircraft : ALLOWED**

**- Passenger and Cargo - Packing : 654**

**instruction**

**- Passenger and Cargo - Maximum : 5 L**

**Quantity/Packing**

**IATA - Cargo only : ALLOWED**

**- Cargo only - Packing instruction : 662**

**- Cargo only - Maximum Quantity/ : 60 L**

**Packing**

**IATA - Limited Quantites : 1 L**

**ERG-Nr : 6L**

**15. Regulatory information**

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

**Safety, health and environmental : Ensure all national/local regulations are observed. regulations/legislation specific for the substance or mixture**

**REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.**

**REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.**

**15.2. Chemical Safety Assessment**

**Chemical Safety Assessment : It has not been carried out.**

**16. Other information**

**Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic.**

**vPvB: very persistent and very bioaccumulative**

**Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006**

**Further information : None.**

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