

# Material Safety Data Sheet



**THIONYL CHLORIDE FOR SYNTHESIS**

**VERSION : 02**

**DATE OF ISSUE : 26-08-2019**

**SUPERSEDES : 01**

**Product Code : 19465**

**Page 1 of 9**

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

### **1.1. Product identifier**

**Trade name :** THIONYL CHLORIDE FOR SYNTHESIS

**Product code :** 19465

### **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, Souri Bldg., 2<sup>nd</sup> 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

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

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

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

**Classification :** R14

Xn; R20/22

R29

C; R35

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

**Health hazards :** Skin corrosion - Category 1A - Danger (CLP : Skin Corr. 1A) H314

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

Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4) H332

### **2.2. Label elements**

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

**Symbol(s) :** C : Corrosive



**R Phrase(s) :** R14 : Reacts violently with water.

R20/22 : Harmful by inhalation and if swallowed.

R29 : Contact with water liberates toxic gas.

R35 : Causes severe burns.

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

S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.

**MOLYCHEM Office:** 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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

# Material Safety Data Sheet



**THIONYL CHLORIDE FOR SYNTHESIS**

**VERSION : 02**

**DATE OF ISSUE : 26-08-2019**

**SUPERSEDES : 01**

**Product Code : 19465**

**Page 2 of 9**

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** : H314 : Causes severe skin burns and eye damage.

H302 : Harmful if swallowed.

H332 : Harmful if inhaled.

**Precautionary statements**

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

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

P260: Do not breathe dust, fume, gas, mist, vapours, spray.

P264: Wash thoroughly after handling.

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

• **Response** : P301+P330+P331: IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

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

P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse.

• **Storage** : 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.

## **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** : Preparation.

**MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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**

# Material Safety Data Sheet



**THIONYL CHLORIDE FOR SYNTHESIS**

**VERSION : 02**

**DATE OF ISSUE : 26-08-2019**

**SUPERSEDES : 01**

**Product Code : 19465**

**Page 3 of 9**

## **Substance name**

**Pentasodium (carboxylatomethyl) :  
iminobis(ethylenenitrilo)  
tetraacetate**

## **Contents**

-----

## **CAS No**

583-61-9

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

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

**Inhalation** : 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. Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing.

**Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

**Ingestion** : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. Call a POISON CENTER or doctor if you feel unwell.

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

**Symptoms relating to use** : Causes severe skin burns and eye damage.

Danger of serious damage to health by prolonged exposure through inhalation.

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. Sand.

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

Do not use extinguishing media containing water.

**Surrounding fires** : Do not use extinguishing media containing water.

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

**Hazardous combustion products** : Under fire conditions, hazardous fumes will be present. Thermal decomposition generates : Corrosive vapours.

#### **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.

**MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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**

# Material Safety Data Sheet



**THIONYL CHLORIDE FOR SYNTHESIS**

**VERSION : 02**

**DATE OF ISSUE : 26-08-2019**

**SUPERSEDES : 01**

**Product Code : 19465**

**Page 4 of 9**

## **6. Accidental release measures**

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

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

Ventilate area.

**Special precautions :** Do not allow water (or moist air) contact with this material.

**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 :** On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

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

See section 8. Exposure controls/personal protection

## **7. Handling and storage**

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

**Handling :** Do not eat, drink or smoke when using this product. Use only outdoors or in a well ventilated area. Do not breathe dust, fume, gas, mist, vapours, spray. Avoid contact during pregnancy or while nursing. 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, dry and well ventilated place. Containers which are opened must be carefully closed when not in use and kept upright to prevent leakage. Keep away from water. Never allow product to get in contact with water during storage.

**Storage regulation :** Comply with applicable regulations.

**Storage - away from :** Strong bases. Strong acids. Sources of ignition. Direct sunlight. Store in dry protected location to prevent any moisture contact.

### **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.

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

**MOLYCHEM Office:** 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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

# Material Safety Data Sheet



**THIONYL CHLORIDE FOR SYNTHESIS**

**VERSION : 02**

**DATE OF ISSUE : 26-08-2019**

**SUPERSEDES : 01**

**Product Code : 19465**

**Page 5 of 9**

- **Hand protection** : Wear protective gloves.
- **Skin protection** : Wear suitable protective clothing.
- **Eye protection** : Chemical goggles or face shield.
- **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** : Characteristic, pungent odor

**Odour threshold** : No data available.

**pH value** : Not applicable.

**Melting point [°C]** : -105 °C

**Decomposition point [°C]** : N/A

**Critical temperature [°C]** : N/A

**Auto-ignition temperature [°C]** : N/A

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

**Flash point [°C]** : N/A

**Boiling point [°C]** : 79 °C

**Initial boiling point [°C]** : N/A

**Final boiling point [°C]** : N/A

**Evaporation rate** : N/A

**Vapour pressure [20°C]** : 129 hPa at 20 °C

**Vapour pressure mm/Hg** : N/A

**Vapour density** : 4,1

**Density [g/cm3]** : 1,64

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

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

**Solubility in water [% weight]** : Decomposes in water

**Solubility in water** : N/A

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

**Solubility** : N/A

**Viscosity at 40°C [mm2/s]** : N/A

### **9.2. Other information**

**Explosive properties** : N/A

**Explosion limits - upper [%]** : N/A

**Explosion limits - lower [%]** : N/A

**MOLYCHEM Office:** 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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

# Material Safety Data Sheet



**THIONYL CHLORIDE FOR SYNTHESIS**

**VERSION : 02**

**DATE OF ISSUE : 26-08-2019**

**SUPERSEDES : 01**

**Product Code : 19465**

**Page 6 of 9**

**Oxidising properties :** No data available.

## **10. Stability and reactivity**

### **10.1. Reactivity**

**Reactivity :** Highly reactive material.

### **10.2. Chemical stability**

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

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

**Hazardous reactions :** Contact with water liberates toxic gas.

Reacts violently with water.

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

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

### **10.5. Incompatible materials**

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

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

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

Thermal decomposition generates : Corrosive vapours.

## **11. Toxicological information**

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

**Toxicity information :** The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

#### **Acute toxicity**

• **Inhalation :** Harmful if inhaled.

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

• **Ingestion :** Harmful if swallowed.

**Corrosion :** Causes severe skin burns and eye damage.

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

**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.

**MOLYCHEM Office:** 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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

# Material Safety Data Sheet



**THIONYL CHLORIDE FOR SYNTHESIS**

**VERSION : 02**

**DATE OF ISSUE : 26-08-2019**

**SUPERSEDES : 01**

**Product Code : 19465**

**Page 7 of 9**

## **12. Ecological information**

### **12.1. Toxicity**

**Toxicity information :** The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

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

**Persistence - degradability :** Biodegradable.

### **12.3. Bioaccumulative potential**

**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 :** Do not allow water (or moist air) contact with this material.

## **14. Transport information**

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

**Proper shipping name :** THIONYL CHLORIDE

**UN N° :** 1836

**H.I. nr :** X88

**ADR - Class :** 8

**Labelling - Transport :** 8 : Corrosive substance.

**ADR - Classification code :** C1

**ADR - Group :** I

**ADR - Packing instructions :** P802

**ADR - Limited Quantity :** 0

**ADR - Tunnel code :** E : Passage forbidden through tunnels of category E.

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

**MOLYCHEM Office:** 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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



# Material Safety Data Sheet



**THIONYL CHLORIDE FOR SYNTHESIS**

**VERSION : 02**

**DATE OF ISSUE : 26-08-2019**

**SUPERSEDES : 01**

**Product Code : 19465**

**Page 8 of 9**

**Proper shipping name : THIONYL CHLORIDE**

**UN N° : 1836**

**IMO-IMDG - Class or division : 8 : Corrosive substance.**

**IMO-IMDG - Packing group : I**

**IMO- IMDG - Packing instructions : P802**

**IMO-IMDG - Limited quantities : None**

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

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

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

**Proper shipping name : THIONYL CHLORIDE**

**UN N° : 1836**

**IATA - Class or division : 8 : Corrosive substance.**

**IATA - Packing group : I**

**IATA - Passenger and Cargo Aircraft : NOT ALLOWED**

**IATA - Cargo only : NOT ALLOWED**

**ERG-Nr : 8W**

## **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.

**MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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**



# Material Safety Data Sheet



**THIONYL CHLORIDE FOR SYNTHESIS**

**VERSION : 02**

**DATE OF ISSUE : 26-08-2019**

**SUPERSEDES : 01**

**Product Code : 19465**

**Page 9 of 9**

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008 **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

## **End of document**

**Prepared by: MOLYCHEM (INDIA)**

**For questions contact: MOLYCHEM**

**Office: 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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**

(The statements contained herein are offered for informational purposes only and are based upon technical data that MOLYCHEM believes to be accurate. It is intended for use only by persons having the necessary technical skills and at their own discretion and risk. Since conditions and manner of use are outside our control, we make **NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE.**)

**MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> 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**