

# Material Safety Data Sheet



## PHOSPHORUS TRICHLORIDE FOR SYNTHESIS

Phosphorus(III) chloride

Product Code : 16880

VERSION : 03

DATE OF ISSUE : 31-01-2022

SUPERSEDES : 02

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

#### 1.1. Product identifier

Trade name : PHOSPHORUS TRICHLORIDE FOR SYNTHESIS

Product code : 16880

Identification of the product : PHOSPHORUS TRICHLORIDE

CAS No : 7719- 12- 2

#### 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., 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./9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co.,  
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### 2. Hazards identification -DSD

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

Classification EC 67/548 or EC 1999/45

Classification : R14

T+; R26/28

Xn; 48/20

C; R35

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

Health hazards : Specific Target Organ Toxicity - Repeated exposure - Category 2 -  
Warning (CLP : STOT RE 2) H373

Acute toxicity, Inhalation - Category 2 - Danger (CLP : Acute Tox. 2) H330

Acute toxicity, Oral - Category 1 - Danger (CLP : Acute Tox. 1) H300

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

#### 2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s) : T+ : Very toxic

C : Corrosive

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

R26/28 : Very toxic by inhalation and if swallowed.

R35 : Causes severe burns.

R48/20 : Harmful : danger of serious damage to health by prolonged exposure through inhalation.

S Phrase(s) :

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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.

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)

**Signal words** : Danger

**Hazard statements** : H300 : Fatal if swallowed.

H330 : Fatal if inhaled.

H314 : Causes severe skin burns and eye damage.

H373 : May cause damage to organs through prolonged or repeated exposure.

### Precautionary statements

• **Prevention** : P284: Wear respiratory protection.

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.

P314: Get medical advice if you feel unwell.

• **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.

### 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 :**

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### Substance name

### Contents

### CAS No

Phosphorus trichloride

100%

7719- 12- 2

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

**Skin contact** : Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor.

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

**Ingestion** : Do NOT induce vomiting. Rinse mouth. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.

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

**Symptoms relating to use** : Causes damage to organ.

Fatal if swallowed.

Fatal if inhaled.

Causes severe skin burns and eye damage.

### **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**

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**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.

**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** : Wash thoroughly after 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.

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

**Special precautions** : Avoid breathing dust, fume, gas, mist, vapours, spray.

#### **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 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**

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

• **Respiratory protection** : Wear respiratory protection.

• **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** : Pungent, irritating odor

**Odour threshold** : No data available.

**pH value** : Not applicable.

**Melting point [°C]** : -112 °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]** : 74 - 78 °C

**Initial boiling point [°C]** : 74°C

**Final boiling point [°C]** : 78 °C

**Evaporation rate** : N/A

**Vapour pressure [20°C]** : 131 hPa at 20 °C

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

**Vapour density** : 4.74

**Density [g/cm<sup>3</sup>]** : 1.57

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

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

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

**Solubility in water** : N/A

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

**Solubility** : Acidic.

**Viscosity at 40°C [mm<sup>2</sup>/s]** : N/A

### 9.2. Other information

**Explosive properties** : N/A

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

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

**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 :** 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 :** Fatal if inhaled.
- **Dermal :** Based on available data, the classification criteria are not met.
- **Ingestion :** Fatal 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 :** May cause damage to organs through prolonged or repeated exposure.


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

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## **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 :** Hazardous waste due to toxicity.

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

## **14. Transport information**

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

**Proper shipping name :** PHOSPHORUS TRICHLORIDE

**UN N° :** 1809

**H.I. nr :** 668

**ADR - Class :** 6.1

**Labelling - Transport :** 6.1 : Toxic substances. 8 : Corrosive substance.

**ADR - Classification code :** TC3

**ADR - Group :** I

**ADR - Packing instructions :** P602

**ADR - Limited Quantity :** 0

**ADR - Tunnel code :** C/D : Tank carriage: Passage forbidden through tunnels category C, D and E.

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Other carriage: Passage forbidden through tunnels of category D and E.

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

Proper shipping name : PHOSPHORUS TRICHLORIDE

UN N° : 1809

IMO-IMDG - Class or division : 6.1 : Toxic substances. ( 8 : Corrosive substance. )

IMO-IMDG - Packing group : I

IMO-IMDG - Packing instructions : P001

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 : PHOSPHORUS TRICHLORIDE

UN N° : 1809

IATA - Class or division : 6.1 : Toxic substances. ( 8 : Corrosive substance. )

IATA - Packing group : I

IATA - Passenger and Cargo Aircraft : NOT ALLOWED

IATA - Cargo only : NOT ALLOWED

ERG-Nr : 6CW

## 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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**End of document**

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