

# PHOSPHORUS TRICHLORIDE FOR SYNTHESIS MSDS



CAS-No.: 7719-12-2 MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

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

#### 1.1. Product identifier

Product form : Substance  
:  
CAS-No. : 7719-12-2  
Product code : 05262

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

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

SPAN LAB  
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)  
401208 Mumbai - INDIA  
PH: +91 9820509929  
[info@spanlab.in](mailto:info@spanlab.in) [www.spanlab.in](http://www.spanlab.in)

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), H300  
Category 1  
Acute toxicity (inhal.), H330  
Category 2  
Skin corrosion/irritation, H314  
Category 1A  
Specific target organ  
toxicity — Repeated  
exposure, Category 2 H373

Full text of H statements : see section 16

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Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

T+; R26/28

Xn; R48/20

C; R35

R14

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS06

GHS08

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H300+H330 - Fatal if swallowed or if inhaled

H314 - Causes severe skin burns and eye damage.

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

Precautionary statements (CLP) :

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P284 - Wear respiratory protection.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor

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

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

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	Product identifier	%
PHOSPHORUS TRICHLORIDE FOR SYNTHESIS	(CAS-No.) 7719-12-2	100

Full text of R- and H-statements: see section 16

### 3.2. Mixtures

Not applicable

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
First-aid measures after 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/doctor.
First-aid measures after ingestion	: Rinse mouth. Immediately call a POISON CENTER/doctor. Specific treatment (see supplemental first aid instruction on this label). Do NOT induce vomiting.

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

Symptoms/effects	: Causes severe skin burns and eye damage. Causes damage to organs.
Symptoms/effects after ingestion	: Fatal if swallowed.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Dry powder.
Unsuitable extinguishing media	: Do not use extinguishing media containing water.

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

No additional information available

#### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment.
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### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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##### 6.1.2. For emergency responders

Protective equipment	: Use personal protective equipment as required.
Emergency procedures	: Stop release.

#### 6.2. Environmental precautions

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

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

Methods for cleaning up	: Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.
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#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling	: Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact during pregnancy/while nursing. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures	: Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product.

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

Storage conditions : Store in dry protected location to prevent any moisture contact.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Hand protection : protective gloves  
Eye protection : Chemical goggles or face shield  
Skin and body protection : Wear suitable protective clothing  
Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.

## SECTION 9: Physical and chemical properties

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

Physical state : Liquid  
Molecular mass : 137.33 g/mol  
Colour : Clear Colorless.  
Odour : pungent, irritating odor.  
Odour threshold : No data available  
pH : 1  
Relative evaporation rate (butylacetate=1) : No data available  
Melting point : -112 °C  
Freezing point : No data available  
Boiling point : 74 - 78  
Flash point : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : No data available  
Vapour pressure : 131 hPa at 20 °C  
Relative vapour density at 20 °C : 4.74  
Relative density : No data available  
Density : 1.57 g/cm<sup>3</sup>

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Solubility	: Water: Decomposes exothermically in water
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts violently with water.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Highly reactive material. Reacts violently with water.

### 10.4. Conditions to avoid

Direct sunlight. Overheating. Open flame. Heat. Sparks.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Oral: Fatal if swallowed. Inhalation: Fatal if inhaled.
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 1
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 1
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.

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Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Fatal if swallowed.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.  
Additional information : Do not allow water (or moist air) contact with this material.  
Ecology - waste materials : Hazardous waste due to toxicity.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : 1809  
UN-No. (IMDG) : 1809  
UN-No. (IATA) : 1809  
UN-No. (ADN) : 1809  
UN-No. (RID) : 1809

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : PHOSPHORUS TRICHLORIDE  
Proper Shipping Name (IMDG) : PHOSPHORUS TRICHLORIDE  
Proper Shipping Name (IATA) : Phosphorus trichloride

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Proper Shipping Name (ADN)	: PHOSPHORUS TRICHLORIDE
Proper Shipping Name (RID)	: PHOSPHORUS TRICHLORIDE
Transport document description (ADR)	: UN 1809 PHOSPHORUS TRICHLORIDE, 6.1 (8), I, (C/D)
Transport document description (IMDG)	: UN 1809 PHOSPHORUS TRICHLORIDE, 6.1 (8), I
Transport document description (IATA)	: UN 1809 Phosphorus trichloride, 6.1, I
Transport document description (ADN)	: UN 1809 PHOSPHORUS TRICHLORIDE, 6.1 (8), I
Transport document description (RID)	: UN 1809 PHOSPHORUS TRICHLORIDE, 6.1 (8), I

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR)	: 6.1 (8)
Danger labels (ADR)	: 6.1, 8



#### IMDG

Transport hazard class(es) (IMDG)	: 6.1 (8)
Danger labels (IMDG)	: 6.1, 8



#### IATA

Transport hazard class(es) (IATA)	: 6.1 (8)
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#### ADN

Transport hazard class(es) (ADN)	: 6.1 (8)
Danger labels (ADN)	: 6.1, 8



#### RID

Transport hazard class(es) (RID)	: 6.1 (8)
Danger labels (RID)	: 6.1, 8



### 14.4. Packing group

Packing group (ADR)	: I
Packing group (IMDG)	: I
Packing group (IATA)	: I
Packing group (ADN)	: I

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Packing group (RID) : I

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : TC3  
Special provisions (ADR) : 354  
Limited quantities (ADR) : 0  
Excepted quantities (ADR) : E0  
Packing instructions (ADR) : P602  
Mixed packing provisions (ADR) : MP8, MP17  
Portable tank and bulk container instructions (ADR) : T20  
Portable tank and bulk container special provisions (ADR) : TP2, TP35  
Tank code (ADR) : L10CH  
Tank special provisions (ADR) : TU14, TU15, TE19, TE21  
Vehicle for tank carriage : AT  
Transport category (ADR) : 1  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV1, CV13, CV28  
Special provisions for carriage - Operation (ADR) : S9, S14  
Hazard identification number (Kemler No.) : 668  
Orange plates :



Tunnel restriction code (ADR) : C/D  
EAC code : 4WE  
APP code : B

#### - Transport by sea

Special provisions (IMDG) : 354  
Limited quantities (IMDG) : 0  
Excepted quantities (IMDG) : E0  
Packing instructions (IMDG) : P602  
Tank instructions (IMDG) : T20  
Tank special provisions (IMDG) : TP2, TP13, TP35  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-B  
Stowage category (IMDG) : D  
Stowage and handling (IMDG) : SW2  
MFAG-No : 137

#### - Air transport

PCA Limited quantities (IATA) : Forbidden  
PCA limited quantity max net quantity (IATA) : Forbidden  
PCA packing instructions (IATA) : Forbidden  
PCA max net quantity (IATA) : Forbidden



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CAO packing instructions (IATA)	: Forbidden
CAO max net quantity (IATA)	: Forbidden
ERG code (IATA)	: 6CW

### - Inland waterway transport

Classification code (ADN)	: TC3
Special provisions (ADN)	: 354, 802
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EP, TOX, A
Ventilation (ADN)	: VE02
Number of blue cones/lights (ADN)	: 2

### - Rail transport

Classification code (RID)	: TC3
Special provisions (RID)	: 354
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P602
Mixed packing provisions (RID)	: MP8, MP17
Portable tank and bulk container instructions (RID)	: T20
Portable tank and bulk container special provisions (RID)	: TP2, TP35
Tank codes for RID tanks (RID)	: L10CH
Special provisions for RID tanks (RID)	: TU14, TU15, TU38, TE21, TE22
Transport category (RID)	: 1
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28, CW31
Hazard identification number (RID)	: 668

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

PHOSPHORUS TRICHLORIDE FOR SYNTHESIS is not on the REACH Candidate List

PHOSPHORUS TRICHLORIDE FOR SYNTHESIS is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV; ID No. 1245)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

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### Netherlands

SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: The substance is not listed

### Denmark

Recommendations Danish Regulation	: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product
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## 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Acute Tox. 1 (Oral)	Acute toxicity (oral), Category 1
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H300	Fatal if swallowed.
H314	Causes severe skin burns and eye damage.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
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
C	Corrosive
T+	Very toxic
Xn	Harmful

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*