

PHOSPHORUS PENTASULFIDE FOR SYNTHESIS MSDS

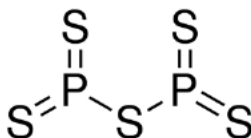
CAS-No.: 1314-80-3 MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form : Substance
:
EC Index-No. : 015-104-00-1
EC-No. : 215-242-4
CAS-No. : 1314-80-3
Product code : 05259
Formula : P₂S₅
Chemical structure :



Synonyms : Phosphorus(V) sulfide

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

Labogens Fine Chem Industries
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,
Ludhiana Pb. (141007)
+91 9316777775, +91 7707855700
sales@labogens.com - www.Labogens.com

1.4. Emergency telephone number

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable solids, H228
Category 1
Substances and Mixtures H260
which, in contact with
water, emit flammable
gases, Category 1
Acute toxicity (oral), H302
Category 4

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Acute toxicity (inhal.), Category 4 H332
Hazardous to the aquatic environment — Acute Hazard, Category 1 H400

Full text of H statements : see section 16

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

F; R11
Xn; R20/22
N; R50
R29

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) :



GHS02



GHS07



GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) :
H228 - Flammable solid.
H260 - In contact with water releases flammable gases which may ignite spontaneously.
H302+H332 - Harmful if swallowed or if inhaled
H400 - Very toxic to aquatic life.

Precautionary statements (CLP) :
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P223 - Do not allow contact with water.
P231+P232 - Handle under inert gas. Protect from moisture.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378 - In case of fire: Use ... to extinguish.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : PHOSPHORUS PENTASULFIDE FOR SYNTHESIS
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EC Index-No. : 015-104-00-1

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

3.2. Mixtures

Not applicable

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. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Take off contaminated clothing. Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

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

Symptoms/effects after inhalation : Harmful if inhaled.

Symptoms/effects after ingestion : Harmful 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 chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

Unsuitable extinguishing media : Do not use extinguishing media containing water.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable solid.

Explosion hazard : May form flammable/explosive vapour-air mixture.

Reactivity in case of fire : Reacts violently with water (moisture): release of toxic/combustible gases/vapours.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Stop release.

6.2. Environmental precautions

Very toxic to aquatic life.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Large spills: scoop solid spill into closing containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling : No open flames. No smoking.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Heat sources. Direct sunlight. Keep in fireproof place.

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 safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Molecular mass : 222.27 g/mol
Colour : Yellow.
Odour : stench.
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : 280 - 284 °C
Freezing point : No data available
Boiling point : 514 °C

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Flash point	: No data available
Auto-ignition temperature	: 1420 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable solid.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 2.03 g/cm³
Solubility	: Water: Insoluble 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

No additional information available

10.2. Chemical stability

Flammable solid. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Highly reactive material. Contact with water liberates toxic gas.

10.4. Conditions to avoid

Do not allow contact with water. Moisture.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed. Harmful if inhaled.

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

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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	: Not classified
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Aspiration hazard	: Not classified
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Potential adverse human health effects and symptoms	: Harmful if swallowed.
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	: Very toxic to aquatic life.
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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	: Handle empty containers with care because residual vapours are flammable.

SECTION 14: Transport information

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

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14.1. UN number

UN-No. (ADR)	: 1340
UN-No. (IMDG)	: 1340
UN-No. (IATA)	: 1340
UN-No. (ADN)	: 1340
UN-No. (RID)	: 1340

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: PHOSPHORUS PENTASULPHIDE
Proper Shipping Name (IMDG)	: PHOSPHORUS PENTASULPHIDE
Proper Shipping Name (IATA)	: Phosphorus pentasulphide
Proper Shipping Name (ADN)	: PHOSPHORUS PENTASULPHIDE
Proper Shipping Name (RID)	: PHOSPHORUS PENTASULPHIDE
Transport document description (ADR)	: UN 1340 PHOSPHORUS PENTASULPHIDE, 4.3 (4.1), II, (D/E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 1340 PHOSPHORUS PENTASULPHIDE, 4.3 (4.1), II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1340 Phosphorus pentasulphide, 4.3, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1340 PHOSPHORUS PENTASULPHIDE, 4.3 (4.1), II, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1340 PHOSPHORUS PENTASULPHIDE, 4.3 (4.1), II, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 4.3 (4.1)
Danger labels (ADR)	: 4.3, 4.1



IMDG

Transport hazard class(es) (IMDG)	: 4.3 (4.1)
Danger labels (IMDG)	: 4.3, 4.1



IATA

Transport hazard class(es) (IATA)	: 4.3 (4.1)
Hazard labels (IATA)	: 4.3, 4.1



ADN

Transport hazard class(es) (ADN)	: 4.3 (4.1)
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Danger labels (ADN) : 4.3, 4.1



RID

Transport hazard class(es) (RID) : 4.3 (4.1)

Danger labels (RID) : 4.3, 4.1



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : WF2

Special provisions (ADR) : 602

Limited quantities (ADR) : 500g

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P410, IBC04

Mixed packing provisions (ADR) : MP14

Portable tank and bulk container instructions (ADR) : T3

Portable tank and bulk container special provisions (ADR) : TP33

Tank code (ADR) : SGAN

Vehicle for tank carriage : AT

Transport category (ADR) : 0

Special provisions for carriage - Packages (ADR) : V1

Special provisions for carriage - Loading, unloading and handling (ADR) : CV23

Hazard identification number (Kemler No.) : 423

Orange plates :

Tunnel restriction code (ADR) : D/E

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EAC code : 4W

- Transport by sea

Limited quantities (IMDG) : 500 g
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P410
Special packing provisions (IMDG) : PP31, PP40
IBC packing instructions (IMDG) : IBC04
Tank instructions (IMDG) : T3
Tank special provisions (IMDG) : TP33
EmS-No. (Fire) : F-G
EmS-No. (Spillage) : S-N
Stowage category (IMDG) : D
Stowage and handling (IMDG) : H1
Segregation (IMDG) : SG26
MFAG-No : 139

- Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y475
PCA limited quantity max net quantity (IATA) : 5kg
PCA packing instructions (IATA) : 483
PCA max net quantity (IATA) : 15kg
CAO packing instructions (IATA) : 490
CAO max net quantity (IATA) : 50kg
ERG code (IATA) : 4FW

- Inland waterway transport

Classification code (ADN) : WF2
Special provisions (ADN) : 602
Limited quantities (ADN) : 500 g
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Provisions for handling and stowage of the cargo (ADN) : HA08
Number of blue cones/lights (ADN) : 1

- Rail transport

Classification code (RID) : WF2
Special provisions (RID) : 602
Limited quantities (RID) : 500g
Excepted quantities (RID) : E2
Packing instructions (RID) : P410, IBC04
Mixed packing provisions (RID) : MP14
Portable tank and bulk container instructions (RID) : T3
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAN
Transport category (RID) : 0
Special provisions for carriage – Packages (RID) : W1
Special provisions for carriage - Loading, unloading and handling (RID) : CW23

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Colis express (express parcels) (RID) : CE10
Hazard identification number (RID) : 423

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 PENTASULFIDE FOR SYNTHESIS is not on the REACH Candidate List

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

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV; ID No. 2233)

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

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

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

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

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Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Flam. Sol. 1	Flammable solids, Category 1
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1
H228	Flammable solid.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
R11	Highly flammable
R20/22	Harmful by inhalation and if swallowed
R29	Contact with water liberates toxic gas
R50	Very toxic to aquatic organisms
F	Highly flammable
N	Dangerous for the environment
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.