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MATERIAL SAFETY DATA SHEET (MSDS)

PHOSPHOURS RED (FOR SYNTHESIS)

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

1.1. Product identifier

Trade name : PHOSPHOURS RED (FOR SYNTHESIS)

Product code : P0160200500

Identification of the product : Red phosphorus
 CAS No: 7723-14-0
 EC No :231-768-7
 Annex No :015-002-00-7

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 SUVCHEM
 Chaitanya Tower, 2nd Floor, Office # 206,
 Siddharth Nagar, S.V. Road,
 Goregaon (West), Mumbai - 400062,
 Maharashtra, India.
 Contact: +91 22 28725393 / 94 / 95
 Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : F; R11
 R16
 R52-53

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

Physical hazards : Flammable solids - Category 1 - Danger (CLP : Flam. Sol. 1) H228

Environmental hazards : Hazardous to the aquatic environment - Chronic hazard - Category 3 (CLP : Aquatic Chronic 3) H412

2.2. Label elements

MATERIAL SAFETY DATA SHEET (MSDS)
PHOSPHOURS RED (FOR SYNTHESIS)
2. Hazards identification -DSD (continued)
Labelling EC 67/548 or EC 1999/45
Symbol(s)

Symbol(s)

: F : Highly flammable

R Phrase(s)

: R11 : Highly flammable.

R16 : Explosive when mixed with oxidizing substances.

R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S Phrase(s)

: S2 : Keep out of the reach of children.

S7 : Keep container tightly closed.

S43 : In case of fire, use .

S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains

: Red phosphorus

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words

: Danger

Hazard statements

: H228 : Flammable solid.

H412 : Harmful to aquatic life with long lasting effects.

Precautionary statements
• General

: P102: Keep out of reach of children.

P103: Read label before use.

P101: If medical advice is needed, have product container or label at hand.

• Prevention

: P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.

P210: Keep away from heat, sparks, open flames or hot surfaces. - No smoking.

P280: Wear protective gloves, protective clothing, eye protection, face protection.

P273: Avoid release to the environment.

• Response

: P370+P378: In case of fire: Use for extinction.

• 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.

Contains

: Red phosphorus

2.3. Other hazards

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MATERIAL SAFETY DATA SHEET (MSDS)

PHOSPHOURS RED (FOR SYNTHESIS)

2. Hazards identification -DSD (continued)

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 : Red phosphorus

EC No :231-768-7
 Annex No :015-002-00-7
 Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Red phosphorus	100 %	7723-14-0	231-768-7	015-002-00-7	----	F; R11 R16 R52-53 Flam. Sol. 1 _ H228 Aquatic Chronic 3 _ H412

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.
Skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
Ingestion : Obtain emergency medical attention. Do NOT induce vomiting. Rinse mouth.

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

Symptoms relating to use : Not expected to present a significant hazard under anticipated conditions of normal use.
 Not expected to present a significant hazard under anticipated conditions of normal use.

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

MATERIAL SAFETY DATA SHEET (MSDS)
PHOSPHOURS RED (FOR SYNTHESIS)
5. Fire-fighting measures (continued)

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

Flammable class	: Flammable solid.
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.
Technical measures	: Use special care to avoid static electric charges.
Special precautions	: Remove ignition sources. No naked lights. No smoking.
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. Avoid release to the environment.
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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.
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6.4. Reference to other sections

See section 8. Exposure controls/personal protection

MATERIAL SAFETY DATA SHEET (MSDS)
PHOSPHOURS RED (FOR SYNTHESIS)
7. Handling and storage
7.1. Precautions for safe handling

Handling	: Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Handle empty containers with care because residual vapours are flammable.
Technical protective measures	: Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, ..., equipment.
Special precautions	: No naked lights. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage	: Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use. Keep in fireproof place. Ground/bond container and receiving equipment.
Storage - away from	: Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s).

Specific end use(s)	: None.
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8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection	: Avoid all unnecessary exposure.
• Respiratory protection	: Wear approved mask.
• Hand protection	: Wear protective gloves.
• 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.
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9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Solid.
Colour	: Red powder

MATERIAL SAFETY DATA SHEET (MSDS)
PHOSPHOURS RED (FOR SYNTHESIS)
9. Physical and chemical properties (continued)

Odour	: N/A
Odour threshold	: No data available.
pH value	: Not applicable.
Melting point [°C]	: 280 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 2600C
Flammability (solid, gas)	: N/A Flammable solid.
Flash point [°C]	: N/A
Boiling point [°C]	: N/A
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: 0.04 hPa at 20 °C
Vapour pressure mm/Hg	: N/A
Vapour density	: N/A
Density [g/cm3]	: 2,34
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Insoluble 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
Oxidising properties	: No data available.

10. Stability and reactivity
10.1. Reactivity

Reactivity	: Not established.
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10.2. Chemical stability

MATERIAL SAFETY DATA SHEET (MSDS)
PHOSPHOURS RED (FOR SYNTHESIS)
10. Stability and reactivity (continued)

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. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.
May release flammable gases.

11. Toxicological information
11.1. Information on toxicological effects
Acute toxicity

- **Inhalation** : Based on available data, the classification criteria are not met.
- **Dermal** : Based on available data, the classification criteria are not met.
- **Ingestion** : Based on available data, the classification criteria are not met.

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

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.

12. Ecological information
12.1. Toxicity.

MATERIAL SAFETY DATA SHEET (MSDS)
PHOSPHOURS RED (FOR SYNTHESIS)
12. Ecological information (continued)

Toxicity information : Harmful to aquatic life with long lasting effects.

12.2. Persistence - degradability

Persistence - degradability : May cause long-term adverse effects in the environment.

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 : Handle empty containers with care because residual vapours are flammable.

14. Transport information
14.1. Land transport (ADR-RID)

Proper shipping name : PHOSPHORUS, AMORPHOUS

UN N° : 1338

H.I. nr : 40

ADR - Class : 4.1

Labelling - Transport : 4.1 : Flammable solids, self-reactive substances and desensitized explosives.

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14. Transport information (continued)


ADR - Classification code : F3
 ADR - Group : III
 ADR - Packing instructions : P410 R001
 ADR - Limited Quantity : 5 KG
 ADR - Tunnel code : E : Passage forbidden through tunnels of category E.


14.2. Sea transport (IMDG) [English only]

Proper shipping name : PHOSPHORUS, AMORPHOUS
 UN N° : 1338
 IMO-IMDG - Class or division : 4.1 : Flammable solids, self-reactive substances and desensitized explosives.
 IMO-IMDG - Packing group : III
 IMO-IMDG - Packing instructions : P410
 IMO-IMDG - Limited quantities : 5 kg
 IMO-IMDG - Marine pollution : No
 EMS-Nr : F-A S-G

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

Proper shipping name : PHOSPHORUS, AMORPHOUS
 UN N° : 1338
 IATA - Class or division : 4.1 : Flammable solids, self-reactive substances and desensitized explosives.
 IATA - Packing group : III
 IATA - Passenger and Cargo Aircraft : ALLOWED
 - Passenger and Cargo - Packing instruction : 446
 - Passenger and Cargo - Maximum Quantity/Packing : 25 kg
 IATA - Cargo only : ALLOWED
 - Cargo only - Packing instruction : 449
 - Cargo only - Maximum Quantity/Packing : 100 kg
 IATA - Limited Quantities : 10 kg

MATERIAL SAFETY DATA SHEET (MSDS)

PHOSPHOURS RED (FOR SYNTHESIS)

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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