

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifiers**Product name: **PHOSPHORUS, RED**CAS-No.: **7723-14-0**Product Number: **A70189****1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Laboratory chemicals, Manufacture of substances

**1.3 Details of the supplier of the safety data sheet**

Company : Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR,

UNITED KINGDOM

Telephone: +44 (0)845 1200 506 Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

**1.4 Emergency telephone number**Emergency Phone #: **+44 (0)845 1200 506****2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****According to Regulation (EC) No1272/2008;** Flammable solids (Category 1), Chronic aquatic toxicity (Category 3)**According to European Directive 67/548/EEC as amended:** Highly flammable. Explosive when mixed with oxidizing substances. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**2.2 Label elements**

Pictogram



Signal word

Danger

**Hazard statement(s):** H228 Flammable solid. H412 Harmful to aquatic life with long lasting effects.**Precautionary statement(s):** P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P273 Avoid release to the environment.**Hazard symbol(s):****R-phrases(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-phrases(s):** S 7 Keep container tightly closed. S43 In case of fire, use fire-fighting equipment on basis class D. S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

**2.3 Other hazards** – no data available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

##### Red phosphorus

Formula:	P
Molecular Weight:	30.97
CAS-No.:	7723-14-0
EC-No.:	231-768-7
Index-No.:	015-002-00-7

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact:** Wash off with soap and plenty of water.

**In case of eye contact:** Flush eyes with water as a precaution.

**If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

**4.2 Most important symptoms and effects, both acute and delayed:** no data available

**4.3 Indication of immediate medical attention and special treatment needed:** no data available

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture:** no data available

**5.3 Precautions for fire-fighters:** Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information:** Use water spray to cool unopened containers.

### 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:** Avoid dust formation. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

**6.2 Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods and materials for containment and cleaning up:** Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections:** For disposal see section 13.

## 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling:** Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Heat sensitive.

**7.3 Specific end uses:** no data available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Update
Red phosphorus	7723-14-0	STEL	0.3mg/m <sup>3</sup>	2005-04-06
Red phosphorus	7723-14-0	TWA	0.1mg/m <sup>3</sup>	2005-04-06

UK. EH40 Occupational Exposure Limits

### 8.2 Exposure controls

**Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

**Eye/face protection:** Safety glasses with side-shields conforming to EN166..

**Skin protection:** The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves

**Body Protection:** Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

#### **Potential health effects**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Signs and Symptoms of Exposure:** Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue. Vomiting, Diarrhoea, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information:** RTECS: TH3495000

## **12. ECOLOGICAL INFORMATION**

**12.1 Toxicity:** Toxicity to fish LC50 - *Lepomis macrochirus* (Bluegill) - 0.005 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 - *Daphnia magna* (Water flea) - 30 mg/l - 48 h

**12.2 Persistence and degradability:** no data available

**12.3 Bioaccumulative potential:** no data available

**12.4 Mobility in soil:** no data available

**12.5 Results of PBT and vPvB assessment:** no data available

**12.6 Other adverse effects:** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods**

**Product:** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging:** Dispose of as unused product.

#### 14. TRANSPORT INFORMATION

##### 14.1 UN-Number

ADR/RID: 1338 IMDG: 1338 IATA: 1338

##### 14.2 UN proper shipping name

ADR/RID: PHOSPHORUS, AMORPHOUS

IMDG: PHOSPHORUS, AMORPHOUS

IATA: PHOSPHORUS, AMORPHOUS

##### 14.3 Transport hazard class(es)

ADR/RID: 4.1 IMDG: 4.1 IATA: 4.1

##### 14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

##### 14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

##### 14.6 Special precautions for users: EMS-No: F-A, S-G

#### 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:** no data available

**15.2 Chemical Safety Assessment:** no data available

#### 16. OTHER INFORMATION

Aquatic Chronic Chronic aquatic toxicity

Flam. Sol. Flammable solids

H228 Flammable solid.

H412 Harmful to aquatic life with long lasting effects.

F Highly flammable

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.