

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.2

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

### 1.1 Product identifiers

Product name : TRIBUTYL PHOSPHINE OXIDE, UNITED STATES PHARMACOPEIA (USP) REFERENCE STANDARD

Product Number : 1680685

Brand : US Pharmacopeia

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 814-29-9

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

Identified uses : Laboratory chemicals, Manufacture of substances

### 1.3

### 1.4 Emergency telephone

Emergency Phone # : 000 800 1007 141 (CHEMTREC)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302  
Acute toxicity, Inhalation (Category 4), H332  
Acute toxicity, Dermal (Category 4), H312  
Skin corrosion (Sub-category 1B), H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 Label elements

### Labelling according Regulation (EC) No 1272/2008

#### Pictogram

|                                                   |                                                                                                                                     |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Signal word                                       | Danger                                                                                                                              |
| Hazard statement(s)<br>H302 + H312 + H332<br>H314 | Harmful if swallowed, in contact with skin or if inhaled.<br>Causes severe skin burns and eye damage.                               |
| Precautionary statement(s)<br>P260<br>P280        | Do not breathe dusts or mists.<br>Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. |
| P301 + P312                                       | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.                                                                      |
| P303 + P361 + P353                                | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.                                        |
| P304 + P340 + P310                                | IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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.    |
| Supplemental Hazard Statements                    | none                                                                                                                                |

### Reduced Labeling (<= 125 ml)

#### Pictogram

|                                            |                                                                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Signal word                                | Danger                                                                                                                              |
| Hazard statement(s)<br>H314                | Causes severe skin burns and eye damage.                                                                                            |
| Precautionary statement(s)<br>P260<br>P280 | Do not breathe dusts or mists.<br>Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. |
| P303 + P361 + P353                         | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.                                        |
| P304 + P340 + P310                         | IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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.    |
| Supplemental Hazard Statements             | none                                                                                                                                |

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Molecular weight : 218,32 g/mol  
CAS-No. : 814-29-9

| Component                            | Classification                                      | Concentration |
|--------------------------------------|-----------------------------------------------------|---------------|
| <b>tributylphosphine oxide</b>       |                                                     |               |
| CAS-No. 814-29-9<br>EC-No. 212-394-3 | Acute Tox. 4; Skin Corr. 1B; H302, H332, H312, H314 | <= 100 %      |

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

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## SECTION 5: Firefighting 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

Carbon oxides

Oxides of phosphorus

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

## 5.4 Further information

No data available

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## SECTION 6: Accidental release measures

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

#### Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.  
For precautions see section 2.2.

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

#### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

#### Storage stability

Recommended storage temperature  
2 - 8 °C

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

### 8.2 Exposure controls

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

##### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### 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).

##### Control of environmental exposure

Do not let product enter drains.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |                                            |                                 |
|--------------------------------------------|---------------------------------|
| a) Appearance                              | Form: solid<br>Color: white     |
| b) Odor                                    | No data available               |
| c) Odor Threshold                          | No data available               |
| d) pH                                      | No data available               |
| e) Melting point/freezing point            | Melting point/range: 64 - 69 °C |
| f) Initial boiling point and boiling range | 150 °C at 2,0 hPa               |
| g) Flash point                             | No data available               |

|    |                                              |                                                                                  |
|----|----------------------------------------------|----------------------------------------------------------------------------------|
| h) | Evaporation rate                             | No data available                                                                |
| i) | Flammability (solid, gas)                    | No data available                                                                |
| j) | Upper/lower flammability or explosive limits | No data available                                                                |
| k) | Vapor pressure                               | No data available                                                                |
| l) | Vapor density                                | No data available                                                                |
| m) | Relative density                             | No data available                                                                |
| n) | Water solubility                             | No data available                                                                |
| o) | Partition coefficient: n-octanol/water       | No data available                                                                |
| p) | Autoignition temperature                     | No data available                                                                |
| q) | Decomposition temperature                    | No data available                                                                |
| r) | Viscosity                                    | Viscosity, kinematic: No data available<br>Viscosity, dynamic: No data available |
| s) | Explosive properties                         | No data available                                                                |
| t) | Oxidizing properties                         | No data available                                                                |

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

No data available

LC50 Inhalation - 4 h - 1,5 mg/l

(Acute toxicity estimate)

LD50 Dermal - 1.100 mg/kg

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Severe irritations

Remarks:

(RTECS)

Eyes - Rabbit

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No ingredient 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

**11.2 Additional Information**

Not available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

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**SECTION 12: Ecological information**

**12.1 Toxicity**

No data available

## 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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

#### Contaminated packaging

Dispose of as unused product.

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 2923

IMDG: 2923

IATA: 2923

### 14.2 UN proper shipping name

ADR/RID: CORROSIVE SOLID, TOXIC, N.O.S. (tributylphosphine oxide)

IMDG: CORROSIVE SOLID, TOXIC, N.O.S. (tributylphosphine oxide)

IATA: Corrosive solid, toxic, n.o.s. (tributylphosphine oxide)

### 14.3 Transport hazard class(es)

ADR/RID: 8 (6.1)

IMDG: 8 (6.1)

IATA: 8 (6.1)

### 14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

No data available

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## SECTION 15: Regulatory information

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



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

## 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

|                    |                                                           |
|--------------------|-----------------------------------------------------------|
| H302               | Harmful if swallowed.                                     |
| H302 + H312 + H332 | Harmful if swallowed, in contact with skin or if inhaled. |
| H312               | Harmful in contact with skin.                             |
| H314               | Causes severe skin burns and eye damage.                  |
| H332               | Harmful if inhaled.                                       |

### Further information

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