

SAFETY DATA SHEET

Section 1. Identification

Product name : Tributyl phosphate

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

Identified uses : Laboratory chemicals
Creation date : 09/29/2015
Print date : 09/29/2015
Version : 1.0
Supplier's details : Deep South Chemical, Inc. 229 Millstone Road, Broussard LA 70518
For Product Information/MSDSs Call: 337-837-9931
Emergency telephone number (with hours of operation) : CHEMTREC 800-424-9300 (U.S. 24 hour)
(001)281-276-5400
CANUTEC 613-996-6666 (Canada 24 hours)
CHEMTREC Int'l 01-703-527-3887 (International 24 hour)

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Acute oral toxicity 4: H302 Harmful if swallowed
Skin corrosion 2: H315 Causes skin irritation
Serious eye irritation 2: H319 Causes serious eye irritation
Carcinogenicity 2: H351 Suspected of causing cancer

2.2 GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard statements

H302 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation
H351 Suspected of causing cancer

Precautionary statements

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
IF exposed or concerned: get medical attention/advice
IF ON SKIN: wash with plenty of soap and water
If skin irritation occurs: get medical advice/attention

Take off contaminated clothing and wash before reuse
IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses. Continue rinsing.
If eye irritation persists: Get medical advice/attention
Rinse mouth
IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell
Store locked up
Dispose of contents/container to an approved waste disposal plant

Classification system

NFPA ratings: Health (3) Fire (1) Reactivity (0)

Hazards not otherwise classified : Toxic to aquatic life
May be harmful by inhalation, in contact with skin and if swallowed. May cause respiratory irritation. May cause drowsiness or dizziness.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

| Ingredient name | % | CAS number |
|--------------------|-----|------------|
| Tributyl phosphate | >99 | 126-73-8 |

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 15 minutes. Check for and remove any contact lenses. Immediately call a Poison Center or doctor/physician.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Center or doctor/physician.

Skin contact Flush contaminated skin with water for 15 minutes. Do not apply chemical neutralizing agents. Remove contaminated clothing and shoes while washing. Do not remove clothing if it sticks to the skin. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion Drink plenty of water. If victim is drowsy or unconscious, place on left side with head down. Seek medical attention. DO NOT INDUCE VOMITING.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact Contact can irritate the eyes.

Inhalation Breathing can irritate the nose and throat. Can irritate the lungs causing coughing and/or shortness of breath.

Skin contact Contact can irritate the skin.

Ingestion May produce nausea, vomiting, depressed appetite, abdominal cramps, and diarrhea.

Chronic symptoms Repeated exposure may cause bronchitis to develop with cough, phlegm, and/or shortness of breath.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No additional information available

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Water spray, carbon dioxide, chemical foam

Unsuitable extinguishing media No unsuitable extinguishing media known.

Flash point 146-165 °C / 294.8-329 °F
Autoignition Temperature 400 °C / 752 °F

5.2 Specific hazards arising from the chemical

Fire Hazard Keep product and empty container away from heat and sources of ignition.

Explosion Hazard Not available.
Reactivity Hazardous combustion products: Carbon monoxide, Carbon dioxide, Oxides of phosphorus Phosphorus trihydride (phosphine)

5.3 Advice for firefighters

Precautionary measures Keep upwind. Consider evacuation. Have neighborhood close doors and windows.

Firefighting instructions Cool tanks/drums with water spray. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment and compressed air/oxygen apparatus.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact. Wash contaminated clothes. Evacuate unnecessary personnel. Keep containers closed.

6.1.2 For emergency responders

Equip cleanup crew with proper protection. Ventilate area. Stop leak if safe to do so.

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

For containment Take up liquid spill into inert absorbent material.

Methods for cleaning up Carefully collect the spill. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. Soak up spills with inert solids, such as sand, silica gel, acid binder, universal binder, or sawdust, as soon as possible. Collect spillage. Store away from other materials.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures Keep container tightly closed when not in use. Ensure good

ventilation/exhaustion at the workplace. Keep ignition sources away. Protect against electrostatic charges. Keep in a dry, cool environment.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including incompatibilities

Comply with applicable regulations. Keep only in the original container in a cool, well ventilated area away from oxidizing agents, sources of ignition, and heat sources. Keep container closed when not in use.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Tributyl Phosphate

PEL (OSHA) TWA: 5 mg/m³

TLV (ACGIH) TWA: 5 mg/m³

IDLH (NIOSH) IDLH: 30 ppm, TWA: 0.2 ppm, TWA: 2.5 mg/m³

8.2 Exposure controls

Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

Personal protective equipment

Eye/face protection

Wear chemical safety goggles. When transferring material, wear face-shield in addition to chemical safety goggles.

Hand protection

Chemical-resistant gloves: rubber gloves/Neoprene gloves.

Skin protection

Corrosion-proof clothing.

Respiratory protection

Wear gas mask with filter type B if conc. in air > exposure limit.

Section 9. Physical and chemical properties

| | |
|---------------------------------------|---|
| Physical state | : Liquid |
| Color | : Clear, colorless |
| Odor | : None |
| pH | : No data available |
| Melting/freezing point | : -79 °C / -110.2 °F |
| Boiling point | : 289 °C / 552.2 °F |
| Flash point | : 146-165 °C / 294.8-329 °F |
| Evaporation rate | : No data available (butyl acetate = 1) |
| Flammability | : No data available |
| Lower and upper explosive limits | : No data available |
| Vapor pressure | : Not determined |
| Vapor density | : No data available (Air = 1.0) |
| Relative density | : 0.979 at 68°F |
| Density | : 8.16 lbs/gal |
| Solubility in water | : No data available |
| Partition coefficient n-octanol/water | : No data available |
| Auto-ignition temp. | : 400 °C / 752 °F |
| Decomposition temp. | : Not determined |
| Viscosity | : No data available |
| VOC | : Not applicable |

Section 10. Stability and reactivity

10.1 Reactivity

None known, based on information available

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Temperatures above 146 °C. Incompatible products. Protect from water.

10.5 Incompatible materials

Strong oxidizing agents, strong bases.

10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, oxides of phosphorus, Phosphorus trihydride (phosphine).

Section 11. Toxicological Information

Information on toxicological effects

Toxicological Data:

Tributyl phosphate: LD50 Oral rat 1,390 mg/kg
 LD50 Dermal rabbit 3,100 mg/kg
 LC50 Inhalation rat 28 g/m³ (1 hr), 1.359 mg/L (4 hr)

Experiments have shown reproductive toxicity effects on laboratory animals.

Section 12. Ecological information

Ecological- General: This product is considered toxic to aquatic organisms.

Tributyl phosphate

Freshwater Algae 4.4 mg/L EC50 = 96 hr, 1.1 mg/L EC50 = 72 hr
Freshwater Fish 9.6 mg/L LC50 = 96 hr, 4.5 mg/L LC50 = 96 hr, 8.18 mg/L LC50 = 96 hr
Water Flea 1.58-8.43 mg/L EC50 48 hr

Mobility: log Pow = 2.5

Section 13. Disposal considerations

Disposal methods Dispose of contents/container to comply with local, state and federal regulations.
 Dispose in a safe manner in accordance with local/national regulations. Avoid
 release to the environment.

Section 14. Transport information

DOT Transport Information: Not regulated

Section 15. Regulatory information

Toxic Substances Control Act (TCSA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

CERCLA RQ-40 CFR 302.4(a)

Component

None

CERCLA RQ (lbs)

SARA 302 Components-40 CFR 355 Appendix A

Component

None

TPQ(Threshold Planning Quantity) (lbs)

Section 311/312 Hazard Class-40 CFR 370.2

Immediate (X)

Delayed (X)

Fire ()

Reactive ()

Sudden Release of Pressure ()

SARA 313-40 CFR 372.65

Component

CAS Number

%(by weight)

None

Section 16. Other information

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