# Safety Data Sheet

## SECTION 1: Identification

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|---|---|
| **Product Name** | Tributyl Phosphate, 98.5%+ |
| **Product Code** | C2341500 |
| **Other Identifiers** | Tri-n-butyl Phosphate; Butyl Phosphate |

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|---|---|
| **Recommended Uses** | General use. |
| **Uses Advised Against** | Not intended for drug, food or household use. |


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**24-Hour Emergency Telephone**

CHEMTREC (USA) 800-424-9300
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## SECTION 2: Hazard(s) Identification

Skin corrosion/irritation (Category 3)

Hazardous to the aquatic environment, short-term (Category Acute 3)

**Hazards not otherwise classified or covered by GHS**

None identified.

**Signal Word**

Warning

**Hazard Statements**

Causes mild skin irritation. Harmful to aquatic life.

**Precautionary Statements**

IF skin irritation occurs: Get medical help. Avoid release to the environment. Dispose of contents/container in accordance with local, state, federal and international regulations.

## SECTION 3: Composition / Information on Ingredients

| Component Name | Component Number CAS | Component Number EC | Component Weight % |
|---|---|---|---|
| Tributyl Phosphate | 126-73-8 | 204-800-2 | 100 |

## SECTION 4: First-Aid Measures

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| **General Advice** | Show this SDS to attending physician if medical treatment is needed. |
| **Skin Contact** | Immediately wash affected area with soap and water while removing contaminated clothing . Seek medical attention if there is any evidence of skin damage or persistent irritation. |
| **Eye Contact** | Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. If irritation persists, seek medical attention. |
| **Inhalation** | Remove person to fresh air and keep comfortable for breathing. If breathing is difficult or labored, seek medical attention. |
| **Ingestion** | Rinse mouth. Seek medical attention if feeling unwell. |
| **Symptoms/effects** | The most important known symptoms/effects are described in Section 2 of this Safety Data Sheet. |
| **Treatment** | Treat symptomatically. |

## SECTION 5: Fire-Fighting Measures

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| **Extinguishing Media** | Substance is not flammable, use agent most appropriate to extinguish surrounding fire (water, carbon dioxide, dry chemical, sand/earth, foam). |
| **Specific Hazards** | Thermal decomposition may produce toxic or irritating fumes. |
| **Actions for Firefighters** | Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. |

## SECTION 6: Accidental Release Measures

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| **Precautions and Procedures** | Ensure adequate ventilation. Use personal protective equipment as required. Evacuate unprotected personnel to safe areas. Keep people away from and upwind of spill/leak. |
| **Environmental Precautions** | As with any chemical, avoid release to the environment for the responsible stewardship of our planet. |
| **Containment and Clean Up** | Contain and absorb with inert absorbent material or vacuum up spillage; collect in suitable lidded container for disposal. |

## Section 7: Handling and Storage

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| **Handling** | Follow good hygiene procedures when handling chemical materials. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use personal items when handling chemical substances. As a general practice, wear gloves and eye protection when handling chemical substances. |
| **Storage** | Keep containers tightly closed in a cool, dry and well-ventilated place. Protect from freezing and physical damage. Store separately from incompatible materials. |

## Section 8: Exposure Controls / Personal Protection

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| **Engineering Controls** | As part of safe chemical handling, emergency eye wash fountains and safety showers should be available in handling areas. Provide sufficient ventilation measures to keep the airborne concentration below the applicable workplace exposure limits. |
| **Exposure Limits** | Tributyl phosphate PEL-TWA 5 mg/m³ US-OSHA |
| **Exposure Limits** | Tributyl phosphate REL-TWA 0.2 ppm US-NIOSH |
| **Exposure Limits** | Tributyl phosphate TLV-TWA 5 mg/m³ US-ACGIH |
| **Eye Protection** | Wear safety glasses with side shields or safety goggles. Wear face shield if there is risk of splashes. |
| **Skin Protection** | As a general practice, wear chemical resistant gloves when handling chemical substances. |
| **Respiratory Protection** | Where exposure limits are exceeded and cannot be adequately controlled by other engineering means (such as a chemical fume hood), wear respiratory protection. |

## Section 9: Physical and Chemical Properties

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| **Physical State** | Liquid |
| **Appearance/Color** | Colorless to slightly yellow |
| **Odor** | Odorless |
| **Odor Threshold** | Not applicable. |
| **Melting/Freezing Point** | -80°C |
| **Boiling Point/Range** | 289°C (decomposes) |
| **Flammability** | Not flammable |
| **Flammable/Explosive Limits** | Not applicable |
| **Flash Point** | 146°C open cup |
| **Auto-Ignition Temperature** | 410°C |
| **Decomposition Temperature** | 289°C |
| **pH** | Data not available |
| **Viscosity** | 3.39 cP at 25°C |

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| **Solubility (in water)** | 0.28 g/L at 25°C |
| **Partition Coefficient (n-octanol/water)** | 4 |
| **Relative Density** | .98 |
| **Vapor Pressure** | 0.008 hPa at 20°C |
| **Vapor Density** | 9.2 |
| **Evaporation Rate** | Data not available |
| **Particle Characteristics** | Not applicable. |

## Section 10: Stability and Reactivity

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| **Reactivity** | Can attack some forms of plastics and rubbers. Reacts with warm water to produce phosphoric acid and butanol. |
| **Chemical Stability** | Stable under normal conditions of handling and storage. |
| **Hazardous Reactions** | Based on available data, no reaction hazards have been identified that would occur during normal handling and storage. |
| **Conditions to Avoid** | Avoid contact with incompatible materials. |
| **Incompatible Materials** | Strong oxidizing agents, strong bases. |
| **Hazardous Decomposition** | Thermal decomposition can produce carbon oxides, phosphorus oxides. |

## Section 11: Toxicological Information

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| **Acute Toxicity - Oral** | LD50 (rat) 3000 mg/kg |
| **Acute Toxicity - Dermal** | LD50 (rabbit) >3100 mg/kg |
| **Acute Toxicity - Inhalation** | LC50 (rat) 28000 mg/m³/1H |
| **Skin Corrosion/Irritation** | Can cause skin irritation. |
| **Eye Damage/Irritation** | This material is not expected to cause eye damage or irritation under normal usage conditions. |
| **Respiratory Sensitization** | Not expected to cause respiratory sensitization. |
| **Skin Sensitization** | Not expected to cause skin sensitization. |
| **Germ Cell Mutagenicity** | Based on available data, this substance does not meet the criteria set forth for classification as causing germ cell mutagenicity. |
| **Carcinogenicity** | This material has not been identified as a carcinogen by IARC or NTP. |
| **Reproductive Toxicity** | Based on available data, this substance does not meet the criteria set forth for classification as a reproductive toxin. |
| **STOT Single Exposure** | None known. |
| **STOT Repeated Exposure** | Repeated exposures (ingestion) may cause lesions on the bladder. |
| **Aspiration Hazard** | This substance is not considered to be an aspiration hazard. |
| **Other Information** | No additional information available. |

## Section 12: Ecological Information

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| **Toxicity Values** | LC50 (Oncorhynchus mykiss) 13 mg/L/96H |
| **Persistence/Biodegradability** | Expected to biodegrade. |
| **Bioaccumlation Potential** | Not expected to bioaccumulate. |
| **Mobility in Soil** | Slight mobility, Koc (estimated) 2400. |
| **Other Adverse Effects** | None known. |

## Section 13: Disposal Considerations

Discharge, treatment, or disposal may be subject to national, state, regional or local laws. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Since emptied containers retain product residue, follow label warnings even after container is emptied. Dispose in accordance with national, state, regional and local regulations.

## Section 14: Transport Information

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| **Proper Shipping Name, Hazard Class** | NOT REGULATED. |
| **Marine Pollutant** | Not classified as a marine pollutant. |

## Section 15: Regulatory Information

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| **USA TSCA** | On or in compliance with the inventory. |
| **USA SARA 302/304** | Does not apply. |
| **USA SARA 311/312** | Does not apply. |
| **USA SARA 313 (TRI)** | Does not apply. |
| **Canada DSL/NDSL** | On or in compliance with DSL. |
| **California Proposition 65** | This product contains no substances on the list. |

## Section 16: Other Information

**Acronyms**

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| ACGIH | American Conference of Governmental Industrial Hygienists (USA) |
| ATE | Acute Toxicity Estimate (calculated toxicity value) |
| BCF | Bioconcentration Factor |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act (USA) |
| DOT | Department of Transportation (USA) |
| DSL | Domestic Substances List (Canada) |
| EHS | Extremely Hazardous Substance |
| EPA | Environmental Protection Agency (United States) |
| GHS | Globally Harmonized System |
| IARC | International Agency for Research on Cancer |
| IDLH | Immediately Dangerous to Life and Health |
| OSHA | Occupational Safety and Health Administration (USA) |
| PEL | Permissible Exposure Limit |
| PNOR | Particulates Not Otherwise Classified |
| PPE | Personal Protective Equipment |
| ppb | Parts per billion |
| ppm | Parts per million |
| RQ | Reportable Quantity |
| SARA | Superfund Amendments and Reauthorization Act (USA) |
| TLV | Threshold Limit Value |
| TPQ | Threshold Planning Quantity |
| TRI | Toxic Release Inventory (USA) |
| TSCA | Toxic Substances Control Act (USA) |
| TWA | Time Weighted Average |
| UN | United Nations |

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***The information contained herein is believed to be accurate and represents the best data currently available to Reagents but does not purport to be all inclusive. This document is intended only as a guide to the appropriate precautionary handling of the material by properly trained personnel using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Reagents makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Reagents will not be responsible for damages resulting from use of or reliance upon this information.***