



SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 07/08/2008  
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Version 1.30

### Section 1 - Product and Company Information

**Product Name** *tert*-Butyldichlorophosphine, 98%  
**Product Number** 381020  
**Brand** Aldrich Chemical

**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 800-325-5832  
**Fax:** 800-325-5052

**Emergency Phone:** 314-776-6555

### Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
TERT-BUTYLDICHLOROPHOSPHINE, 98%	25979-07-1	No	247-386-9	
<b>Formula</b>	C4H9Cl2P			
<b>Synonyms</b>				

### Section 3 - Hazards Identification

#### Emergency Overview

Corrosive.  
Reacts violently with water. Causes burns.  
Lachrymator.

#### HMIS Rating

Special Hazard(s) : Water reactive

#### NFPA Rating

Special Hazard(s) : Water reactive

For additional information on toxicity, please refer to Section 11.

### Section 4 - First Aid Measures

#### Immediate Treatment- Work Site

In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

#### Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

#### Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

#### Eye Exposure

Assure adequate flushing of the eyes by separating the eyelids with fingers.

### Section 5 - Fire Fighting Measures

**Autoignition Temp:** N/A

#### Extinguishing Media

**Suitable**  
Carbon dioxide, dry chemical powder, or appropriate foam.

#### Firefighting

##### Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

##### Specific Hazard(s)

Emits toxic fumes under fire conditions.

#### Exposure Hazard(s)

##### Material

Corrosive, Lachrymator.

### Section 6 - Accidental Release Measures

#### Procedure to be Followed in Case of Leak or Spill

Evacuate area.

#### Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

#### Methods for Cleaning Up

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

### Section 7 - Handling and Storage

#### Handling

##### User Exposure

Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

#### Storage

##### Suitable

Keep tightly closed. Store in a cool dry place.

##### Incompatible Materials

Do not allow contact with water

#### Special Requirements

Handle under inert gas.

### Section 8 - Exposure Controls / PPE

#### Engineering Controls

Safety shower and eye bath. Use only in a chemical fume hood.

#### Personal Protective Equipment

##### Other

Wear appropriate government approved respirator, chemical resistant gloves, safety goggles, other protective clothing. Faceshield (8-inch minimum).

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#### General Hygiene Measures

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

### Section 9 - Physical/Chemical Properties

Molecular Weight 159 AMU

pH N/A  
BP/BP Range N/A  
MP/MP Range 44 - 49 °C  
Freezing Point N/A  
Vapor Pressure N/A  
Vapor Density N/A  
Saturated Vapor Conc. N/A  
SG/Density N/A  
Bulk Density N/A  
Odor Threshold N/A  
Volatife% N/A  
VOC Content N/A  
Water Content N/A  
Solvent Content N/A  
Evaporation Rate N/A  
Viscosity N/A  
Partition Coefficient N/A  
Decomposition Temp. N/A  
Flash Point °F N/A  
Flash Point °C N/A

Explosion Limits N/A

Flammability N/A  
Autoignition Temp N/A  
Solubility N/A

N/A = not available

### Section 10 - Stability and Reactivity

#### Stability

##### Conditions of Instability

Air.

##### Reactions to Avoid

Reacts violently with:

##### Materials to Avoid

Water.

#### Hazardous Decomposition Products

##### Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine

### Section 11 - Toxicological Information

#### Route of Exposure

##### Multiple Routes

Harmful if swallowed, inhaled, or absorbed through skin.

#### Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure

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may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: N/A

### Section 12 - Ecological Information

No data available.

### Section 13 - Disposal Considerations

#### Appropriate Method of Disposal of Substance or Preparation

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

### Section 14 - Transport Information

#### DOT

Proper Shipping Name: Corrosive solid, acidic, organic, n.o.s.

UN#: 3261

Class: 8

Packing Group: Packing Group II

Hazard Label: Corrosive

PIH: Not PIH

#### IATA

Proper Shipping Name: Corrosive solid, acidic, organic, n.o.s.

IATA UN Number: 3261

Hazard Class: 8

Packing Group: II

### Section 15 - Regulatory Information

#### EU Additional Classification

Symbol of Danger: C

Indication of Danger

Corrosive.

Risk Statements R: 14 34  
Reacts violently with water. Causes burns.

Safety Statements S: 26 27 28 36/37/39 45

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### US Classification and Label Text

Indication of Danger

Corrosive.

Risk Statements

Reacts violently with water. Causes burns.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing. Wear suitable protective clothing, gloves, and eye/face protection.

US Statements

Lachrymator.

#### United States Regulatory Information

SARA Listed: No

#### Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information

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required by the CPR.

**DSL:** No

**NDSL:** No

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## **Section 16 - Other Information**

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### **Disclaimer**

For R&D use only. Not for drug, household or other uses.

### **Warranty**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. SigmaAldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

