

## SAFETY DATA SHEET

Preparation Date: 2/1/2019

Revision date 2/1/2019

Revision Number: G1

### 1. IDENTIFICATION

#### Product identifier

**Product code:** T1135  
**Product Name:** TRITOLYL PHOSPHATE, TECHNICAL

#### Other means of identification

**Synonyms:** Cresyl phosphate  
 Phosphate de tricresyle (French)  
 Tricresilfosfati (Italian)  
 Tricresylfosfaten (Dutch)  
 Tricresyl phosphate  
 Trikresylfosfat (Czech)  
 Trikresylphosphate (German)  
 Tris(tolyloxy)phosphine oxide  
 Tritolyfosfat (Czech)

**CAS #:** 1330-78-5  
**RTECS #** TD0175000  
**CI#:** Not available

#### Recommended use of the chemical and restrictions on use

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>  
**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Tom Tyner (USA - West Coast)  
**Contact Person:** Ibad Tirmiz (USA - East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Reproductive toxicity	Category 2

#### Label elements

## Warning

### Hazard statements

Harmful in contact with skin or if inhaled  
Suspected of damaging fertility or the unborn child



### Hazards not otherwise classified (HNOC)

Not Applicable

### Other hazards

May be harmful if swallowed

### Precautionary Statements - Prevention

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  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area

### Precautionary Statements - Response

IF ON SKIN: Wash with plenty of water  
Call a POISON CENTER or doctor/physician if you feel unwell  
Wash contaminated clothing before reuse  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

### Precautionary Statements - Storage

Store locked up

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Tritolyl Phosphate	1330-78-5	100

## 4. FIRST AID MEASURES

### First aid measures

#### General Advice:

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

#### Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops.

#### Eye Contact:

Flush eyes with water for 15 minutes. Get medical attention if irritation occurs.

#### Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give

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oxygen. Get medical attention.

**Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**  
May cause loss of appetite  
May cause gastritis  
May cause abdominal pain, nausea, vomiting, diarrhea  
Central nervous system effects  
May cause muscle weakness  
May affect the liver  
It may affect the kidneys

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** Treat symptomatically.

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Water spray mist or foam.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**

**Hazardous combustion products** Carbon Monoxide, Carbon Dioxide. Phosphorus oxides.

**Specific hazards** May be combustible at high temperatures. May be ignited by heat, sparks or flames.

**Special Protective Actions for Firefighters**

**Specific Methods:** No information available

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapors or spray mist. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed. Keep in a well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

#### **Incompatible Materials:**

Strong oxidizing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Tritolyl Phosphate	1330-78-5	None	None	None	None

##### **Canada**

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Tritolyl Phosphate	1330-78-5	None	None	None	None

##### **Australia and Mexico**

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Component	CAS No	Australia	Mexico
Tritolyl Phosphate	1330-78-5	None	None

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

<b>Eye protection:</b>	Goggles
<b>Skin and body protection:</b>	Long sleeved clothing Chemical resistant apron Gloves
<b>Respiratory protection:</b>	Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
<b>Hygiene measures:</b>	Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Liquid	<b>Appearance:</b> Oily.	<b>Color:</b> Colorless.
<b>Odor:</b> Odorless.	<b>Taste</b> No information available.	<b>Formula</b> No information available
<b>Molecular/Formula weight (g/mole):</b> No information available	<b>Flammability (solid, gas)</b> no data available	<b>Flashpoint (°C/°F):</b> 250 °C/482 °F
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> No information available	<b>Decomposition temperature(°C/°F):</b> No information available
<b>Boiling point/range(°C/°F):</b> 265 °C/509 °F @ 10 mmHg	<b>Bulk density:</b> No information available	<b>Density (g/cm3):</b> No information available
<b>Specific gravity:</b> 1.143-1.162 @ 25 deg. C	<b>pH</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> log Kow = 5.11	<b>Viscosity:</b> No information available
<b>Miscibility:</b>	<b>Solubility:</b>	

No information available

Practically insoluble in water

## 10. STABILITY AND REACTIVITY

### Reactivity

No information available

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Incompatible materials.

**Incompatible Materials:** Strong oxidizing agents

**Hazardous decomposition products:** Carbon monoxide. Carbon dioxide. Phosphorus oxides.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### **Principal Routes of Exposure:**

Skin. Ingestion. Inhalation.

### Acute Toxicity

#### **Component Information**

Tritolyl Phosphate	
CAS No	1330-78-5

**LD50/oral/rat** = > 20000 mg/kg Oral LD50 Rat; 3 g/kg Oral LD50 Rat

**LD50/oral/mouse** = 3900 mg/kg

**LD50/dermal/rabbit** = > 10000 mg/kg Dermal LD50 Rabbit; 3700 mg/kg

**LD50/dermal/rat** = No information available

**LC50/inhalation/rat** = > 5.2 mg/L Inhalation LC50 Rat 4 h; >11.1 mg/l 1 h

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50 information** = No information available

#### **Product Information**

**LD50/oral/rat** =

**Value - Acute Tox** = 3000 mg/kg

**LD50/oral/mouse** =

**Value - Acute Tox Oral** = 3900 mg/kg

**LD50/dermal/rabbit**

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Value - Acute Tox = > 3700 mg/kg

**LD50/dermal/rat**

VALUE - Acute Tox Dermal = No information available

**LC50/inhalation/rat**

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = >5.2 mg/l (rat, 4 hr)

**LC50/Inhalation/mouse**

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

**Symptoms**

**Skin Contact:** May cause skin irritation.

**Eye Contact:** May cause eye irritation.

**Inhalation** Irritating to respiratory system.

**Ingestion** May cause loss of appetite. May cause gastritis. May cause abdominal pain, nausea, vomiting, diarrhea. May cause central nervous system effects (affect behavior). May affect behavior/central nervous system (somnolence, tremor). May cause weakness.

**Aspiration hazard** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** Chronic exposure may affect the liver and kidneys. Prolonged or repeated ingestion may affect metabolism (cause anorexia, weight loss). Prolonged or repeated ingestion may cause muscle weakness. Chronic exposure may cause central nervous system effects.

**Sensitization:** No information available.

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Tritolyl Phosphate	1330-78-5	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)*

*NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Reproductive toxicity** Suspected of damaging fertility or the unborn child

**Reproductive Effects:** May cause adverse reproductive effects based on animal data  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organs:** No information available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** Aquatic environment.

*Tritolyl Phosphate - 1330-78-5*  
**Fish**

LC50: 0.21 - 0.32mg/L (96h, Oncorhynchus mykiss) LC50: 3.3 - 6.2mg/L (96h, Oncorhynchus mykiss) LC50: 0.1 - 0.22mg/L (96h, Lepomis macrochirus) LC50: 20.4 - 41.2mg/L (96h, Lepomis macrochirus) LC50: 3.2 - 10mg/L (96h, Oryzias latipes) LC50: 4.8 - 6.4mg/L (96h, Poecilia reticulata)

**Persistence and degradability:** No information available

**Bioaccumulative potential:** Potential for bioconcentration in aquatic organisms is high.

**Mobility in soil** It is expected to be immobile in soil  
**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**  
Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**  
Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Tritolyl Phosphate	1330-78-5	None	None	None	None

**14. TRANSPORT INFORMATION**

**DOT**  
**UN-No:** UN2574  
**Proper Shipping Name:** Tricresyl phosphate  
**Hazard Class** 6.1  
**Subsidiary Class** No information available  
**Packing group:** II  
**Emergency Response Guide Number** 151  
**Marine Pollutant** No data available  
**DOT RQ (lbs):** No information available



**Special Provisions** A3, IB2, N33, N34, T7, TP2  
**Symbol(s):** No information available  
**Description:** UN2574, Tricresyl phosphate, 6.1, II

**TDG (Canada)**  
**UN-No:** UN2574  
**Proper Shipping Name:** Tricresyl phosphate  
**Hazard Class** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** II  
**Marine Pollutant** No Information available  
**Description:** UN2574, Tricresyl phosphate, 6.1, II

**ADR**  
**UN Number** UN2574  
**Proper Shipping Name:** Tricresyl phosphate  
**Transport hazard class(es)** 6.1  
**Packing group** II  
**Subsidiary Risk:** No information available  
**Description:** UN2574, Tricresyl phosphate, 6.1, II

**IMDG**  
**UN-No:** UN2574  
**Proper Shipping Name:** Tricresyl phosphate  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** II  
**Marine Pollutant** No information available  
**EMS:** F-A  
**Description** UN2574, Tricresyl phosphate, 6.1, II

**RID**  
**UN Number** UN2574  
**Proper Shipping Name:** Tricresyl phosphate  
**Transport hazard class(es)** 6.1  
**Subsidiary Risk:** No information available  
**Packing group** II  
**Description:** UN2574, Tricresyl phosphate, 6.1, II

**ICAO (air)**  
**UN-No:** UN2574  
**Proper Shipping Name:** Tricresyl phosphate  
**Hazard Class** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** II  
**Description:** UN2574, Tricresyl phosphate, 6.1, II

**IATA**  
**UN Number** UN2574  
**Proper Shipping Name:** Tricresyl phosphate  
**Transport hazard class(es)** 6.1  
**Subsidiary Risk:** No information available  
**Packing group** II  
**Precautionary Statements - Response** 6L  
**Special Provisions** No information available  
**Description:** UN2574, Tricresyl phosphate, 6.1, II

## 15. REGULATORY INFORMATION

### International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia AICS	EINECS-No.
<i>Tritolyl Phosphate</i>	1330-78-5	PresentACTIVE	Present KE-28648	Present	Present (3)-3363,(3)-2613,(3)-2522	Present	Present	Present 215-548-8

### U.S. Regulations

*Tritolyl Phosphate*

**New Jersey RTK Hazardous Substance List:** 3130

#### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

##### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

##### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Tritolyl Phosphate</i>	1330-78-5	Not Listed	Not Listed	Not Listed	Not Listed

### CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>Tritolyl Phosphate</i>	1330-78-5	None	None	None	None	None

### U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Tritolyl Phosphate</i>	1330-78-5	Not Applicable	Not Applicable

### Canada

#### WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

The WHMIS 2015 classification of this product has not been validated or reviewed yet.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

### DSL/NDSL

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Component	CAS No	Canada (DSL)	Canada (NDSL)
Tritolyl Phosphate	1330-78-5	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Tritolyl Phosphate	1330-78-5	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Tritolyl Phosphate	1330-78-5	Not listed

## EU Classification

### EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Tritolyl Phosphate	1330-78-5	

### EU - CLP (1272/2008)

#### R-phrase(s)

Not determined

#### S -phrase(s)

none

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Tritolyl Phosphate	1330-78-5		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

#### Indication of danger:

Xn - Harmful

## 16. OTHER INFORMATION

Preparation Date: 2/1/2019  
Revision date: 2/1/2019  
Prepared by: Sonia Owen

#### Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**