

# Material Safety Data Sheet

## Tricresyl Phosphate

ACC# 92090

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Tricresyl Phosphate

**Catalog Numbers:** AC611550010

**Synonyms:** Tricresyl Phosphate; Tris(Tolyloxy)phosphine oxide; Tritolyl Phosphate.

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
1330-78-5	TRICRESYL PHOSPHATE	ca 100	215-548-8

**Hazard Symbols:** XN N

**Risk Phrases:** 39/23/24/25

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless liquid. Causes eye and skin irritation. Causes digestive and respiratory tract irritation. May cause adverse reproductive effects. **Warning!**

**Target Organs:** Muscles.

#### Potential Health Effects

**Eye:** Causes eye irritation. Causes redness and pain.

**Skin:** Causes skin irritation. If absorbed, causes symptoms similar to those of ingestion.

**Ingestion:** Poison by ingestion. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause headache. May cause muscle paralysis, respiratory failure, and possible death.

**Inhalation:** Causes respiratory tract irritation. May cause effects similar to those described for ingestion.

**Chronic:** Effects may be delayed.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.

**Inhalation:** Remove from exposure and move to fresh air immediately. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Gastric lavage by qualified medical personnel may be considered depending on quantity of material ingested.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Use water spray, dry chemical, carbon dioxide, or chemical foam.

**Flash Point:** 410 deg C ( 770.00 deg F)

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section.

Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Avoid breathing dust, vapor, mist, or gas. Do not get on skin or in eyes. Do not ingest or inhale. Use only in a chemical fume hood.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
TRICRESYL PHOSPHATE	none listed	none listed	none listed

**OSHA Vacated PELs:** TRICRESYL PHOSPHATE: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear chemical goggles and a face shield. Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear impervious gloves.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** colorless

**Odor:** odorless

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** 12.70

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 420 deg C

**Freezing/Melting Point:** Not available.

**Decomposition Temperature:** Not available.

**Solubility:** insoluble

**Specific Gravity/Density:** 1.1600g/cm<sup>3</sup>

**Molecular Formula:** C<sub>21</sub>H<sub>21</sub>O<sub>4</sub>P

**Molecular Weight:** 368.36

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, excess heat.

**Incompatibilities with Other Materials:** Oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of phosphorus, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 1330-78-5: TD0175000

### LD50/LC50:

**CAS#** 1330-78-5:

Draize test, rabbit, eye: 500 mg/24H Mild;

Oral, mouse: LD50 = 3900 mg/kg;

Oral, rat: LD50 = 3 gm/kg;

### Carcinogenicity:

**CAS#** 1330-78-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

**Epidemiology:** Experimental reproductive effects have been reported.

**Teratogenicity:** No information available.

**Reproductive Effects:** orl-rat TDLo: 13200 mg/kg (male 66 days pre-mating) orl-rat TDLo: 16 gm/kg (male 66 days pre-mating) orl-mus TDLo: 1750 mg/kg (male 7 days pre-mating) orl-mus TDLo: 4464 mg/kg (male 7 days pre-mating) orl-mus TDLo: 7250 mg/kg (female 7 days pre-mating) orl-mus TDLo: 2250 mg/kg (male 7 days pre-mating)

**Neurotoxicity:** No information available.

**Mutagenicity:** DNA Damage rodent-rat orl: 500 mg/kg/10D (Continuous)

**Other Studies:** See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

**Ecotoxicity:** Fish: Channel catfish: 803ug/L; 96H; Flow through Fish: Bluegill/Sunfish: 150ug/L; 96H; Flow through No data available.

**Environmental:** Terrestrial and Aquatic: Biodegradation is expected to be a dominant degradation process in soil. Atmospheric: Based upon an extrapolated vapor pressure of  $6.7 \times 10^{-7}$  mm Hg at 25 deg C, a mixture of tricresyl phosphate isomers can exist in both the vapor and particulate-phases in the ambient atmosphere. Expected to bioconcentrate.

**Physical:** No information available.

**Other:** For more information, see "HANDBOOK OF ENVIRONMENTAL FATE AND EXPOSURE DATA." Biodegradable.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	TRICRESYL PHOSPHATE				No information available.
<b>Hazard Class:</b>	6.1				
<b>UN Number:</b>	UN2574				
<b>Packing Group:</b>	II				

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 1330-78-5 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### SARA

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 1330-78-5: acute.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 1330-78-5 can be found on the following state right to know lists: New Jersey.

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

##### Hazard Symbols:

XN N

##### Risk Phrases:

R 39/23/24/25 Toxic : danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

##### Safety Phrases:

S 20/21 When using do not eat, drink or smoke.

S 45 In case of accident or if you feel unwell. seek

medical advice immediately (show the label where possible).  
S 28A After contact with skin, wash immediately with plenty of water.  
S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**WGK (Water Danger/Protection)**

CAS# 1330-78-5: 2

**Canada - DSL/NDSL**

CAS# 1330-78-5 is listed on Canada's DSL List.

**Canada - WHMIS**

WHMIS: Not available.

**Canadian Ingredient Disclosure List**

CAS# 1330-78-5 is listed on the Canadian Ingredient Disclosure List.

**Exposure Limits**

Section 16 - Additional Information
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**MSDS Creation Date:** 11/08/2001

**Revision #2 Date:** 11/08/2001

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