



Material Safety Data Sheet

Tri-n-octylphosphine oxide

MSDS# 97363

Section 1 - Chemical Product and Company Identification

MSDS Name: Tri-n-octylphosphine oxide  
Catalog Numbers: AC207600000, AC207600250, AC207601000, AC207605000  
Synonyms: TOPO; Trioctylphosphine oxide.

Company Identification: Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

Company Identification: (USA) Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

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CAS#: 78-50-2  
Chemical Name: Tri-n-octylphosphine oxide  
%: 99  
EINECS#: 201-121-3  
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Hazard Symbols:



Risk Phrases:

C N



34 50/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Causes burns by all exposure routes. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Target Organs: Kidneys, liver, respiratory system, gastrointestinal system, eyes, skin.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns. May be harmful if absorbed through the skin.

Ingestion: Causes gastrointestinal tract burns. May be harmful if swallowed.

Inhalation: Causes chemical burns to the respiratory tract. May be harmful if inhaled. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

Chronic: May cause liver and kidney damage.

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 immediately.

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

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician: Treat symptomatically and supportively.

### 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.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature: Not applicable.

Flash Point: > 110 deg C (> 230.00 deg F)

Explosion Limits: Not available  
Lower:

Explosion Limits: Not available  
Upper:

NFPA Rating: health: 3; flammability: 1; instability: 0;

### Section 6 - Accidental Release Measures

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

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

### Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Tri-n-octylphosphine oxide	none listed	none listed	none listed

OSHA Vacated PELs: Tri-n-octylphosphine oxide: None listed

#### Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

#### Exposure Limits

#### Personal Protective Equipment

Eyes: 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 appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

### Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Color: white - slightly yellow

Odor: none reported

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: 201 - 202 deg C @ 2 mmHg

Freezing/Melting Point: 50 - 55 deg C

Decomposition Temperature: Not available

Solubility in water: Insoluble

Specific Gravity/Density: Not available.

Molecular Formula: C<sub>24</sub>H<sub>51</sub>OP

Molecular Weight: 386.64

#### Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, dust generation, excess heat.
Incompatibilities with Other Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Phosphine, carbon monoxide, oxides of phosphorus, oxides of phosphorus, carbon dioxide.
Hazardous Polymerization	Will not occur.

#### Section 11 - Toxicological Information

RTECS#: CAS# 78-50-2: SZ1662500

RTECS:

LD50/LC50: **CAS# 78-50-2:** Draize test, rabbit, eye: 100 mg/24H Severe;  
Draize test, rabbit, skin: 500 uL/24H Moderate;

Carcinogenicity: Tri-n-octylphosphine oxide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Other: Do not empty into drains.

#### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### Section 14 - Transport Information

US DOT

Shipping Name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.

Hazard Class: 8

UN Number: UN3261

Packing Group: III

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

#### Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C N

Risk Phrases:

R 34 Causes burns.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 78-50-2: Not available

Canada

CAS# 78-50-2 is listed on Canada's DSL List

Canadian WHMIS Classifications: E

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 78-50-2 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 78-50-2 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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