

SPEEDCURE TPO

1. PRODUCT AND COMPANY IDENTIFICATION

Company

Arkema Inc.
900 First Avenue
King of Prussia, Pennsylvania 19406

Sartomer

Customer Service Telephone Number: (800) SARTOMER
(Monday through Friday, 8:00 AM to 5:00 PM EST)

Emergency Information

Transportation: CHEMTREC: (800) 424-9300
(24 hrs., 7 days a week)

Medical: Rocky Mountain Poison Center: (866) 767-5089
(24 hrs., 7 days a week)

Product Information

Product name: SPEEDCURE TPO
Synonyms: Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Molecular formula: Complex Substance
Chemical family: Phosphine oxides
Product use: Process regulators, used in vulcanization or polymerization processes

2. HAZARDS IDENTIFICATION

Emergency Overview

Color: yellowish
Physical state: solid
Form: Crystalline powder
Odor: odourless

*Classification of the substance or mixture:

Skin sensitisation, Sub-category 1B, H317
Reproductive toxicity, Category 2, H361
Chronic aquatic toxicity, Category 2, H411

*For the full text of the H-Statements mentioned in this Section, see Section 16.

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GHS-Labeling

Hazard pictograms:



Signal word:

Warning

Hazard statements:

H317 : May cause an allergic skin reaction.
H361 : Suspected of damaging fertility or the unborn child.
H411 : Toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements:

May form combustible dust concentrations in air.

Precautionary statements:

Prevention:

P201 : Obtain special instructions before use.
P202 : Do not handle until all safety precautions have been read and understood.
P261 : Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P272 : Contaminated work clothing should not be allowed out of the workplace.
P273 : Avoid release to the environment.
P280 : Wear protective gloves.
P281 : Use personal protective equipment as required.

Response:

P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.
P308 + P313 : IF exposed or concerned: Get medical advice/ attention.
P333 + P313 : If skin irritation or rash occurs: Get medical advice/ attention.
P363 : Wash contaminated clothing before reuse.
P391 : Collect spillage.

Storage:

P405 : Store locked up.

Disposal:

P501 : Dispose of contents or container to an approved waste disposal plant.

Supplemental information:

Potential Health Effects:

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Mechanical irritation effects from dust exposure are possible at ambient temperature.

Other:

Handle in accordance with good industrial hygiene and safety practice. (powder)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	75980-60-8	>= 99 %	H317, H361, H411

**For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

Inhalation:

If inhaled, remove victim to fresh air.

Skin:

In case of contact, immediately flush skin with soap and plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Thoroughly clean shoes before reuse. Remove contaminated clothing and shoes.

Eyes:

Immediately flush eye(s) with plenty of water.

Ingestion:

If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms/effects, acute and delayed:

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Statements and Supplemental Information if applicable) and Section 11 (Toxicology Information) of this SDS.

4.3. Indication of immediate medical attention and special treatment needed, if necessary:

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Unless otherwise noted in Notes to Physician, no specific treatment noted; treat symptomatically.

5. FIREFIGHTING MEASURES

Extinguishing media (suitable):

Water spray, Carbon dioxide (CO₂), Foam, Dry chemical

Extinguishing media (unsuitable):

High volume water jet

Protective equipment:

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

Further firefighting advice:

Do not use a solid stream of water.

A solid stream of water can cause a dust explosion.

Do not allow run-off from fire fighting to enter drains or water courses.

Fire fighting equipment should be thoroughly decontaminated after use.

Fire and explosion hazards:

Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables.

Note: Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come into contact with the material or its container.

When burned, the following hazardous products of combustion can occur:

Carbon oxides

Hazardous organic compounds

phosphorous oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid dust formation and dispersal of dust in the air. Wet down (dampen) the spilled material with water. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Implement workplace practices such that dusts are not allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Protective equipment:

Appropriate personal protective equipment is set forth in Section 8.

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7. HANDLING AND STORAGE

Handling

General information on handling:

Do not taste or swallow.

Avoid contact with skin, eyes and clothing.

Avoid breathing dust.

Keep away from heat, sparks and flames.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Avoid creating dust in handling, transfer or clean up.

Prevent dust accumulation.

Implement routine housekeeping practices to ensure that dusts do not accumulate on surfaces.

Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.

Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.

Container hazardous when empty.

Follow label warnings even after container is emptied.

RESIDUAL DUSTS MAY EXPLODE ON IGNITION.

DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.

Improper disposal or reuse of this container may be dangerous and/or illegal.

Emptied container retains product residue.

Storage

General information on storage conditions:

Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes, which pertain to the specific local conditions of storage and use, including NFPA 654.

Storage stability – Remarks:

Stable under recommended storage conditions.

Storage incompatibility – General:

Store separate from:

Strong oxidizing agents

Strong reducing agents

Strong acids

Strong alkalies

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Guidelines:

Engineering controls:

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Check that all dust control equipment such as local exhaust ventilation, material transport systems, and air-material separation devices involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Isolation devices may be appropriate to prevent propagation from one unit to another. Ensure that dust-handling systems are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Consult ACGIH ventilation manual, NFPA Standard 91 and NFPA Standard 654 for design of exhaust system and safe handling.

Respiratory protection:

Avoid breathing dust. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Skin protection:

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse immediately if skin is contaminated. Wash contaminated clothing and clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

Eye protection:

Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	yellowish
Physical state:	solid
Form:	Crystalline powder
Odor:	odourless
Odor threshold:	No data available.
Flash point	No data available

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Auto-ignition temperature:	> 752 °F (400 °C)
Lower flammable limit (LFL):	No data available.
Upper flammable limit (UFL):	No data available.
pH:	No data available.
Density:	1.218 g/cm ³ (68 °F (20 °C))
Specific Gravity (Relative density):	1.218 (68 °F (20 °C))
Bulk density:	530 kg/m ³
Vapor pressure:	No data available.
Vapor density:	No data available.
Boiling point/boiling range:	No data available.
Melting point/range:	194 - 203 °F (90 - 95 °C)
Freezing point:	No data available.
Evaporation rate:	No data available.
Solubility in water:	11 mg/l 68 °F (20 °C)
Viscosity, dynamic:	No data available.
Oil/water partition coefficient:	log Pow: 3.1
Thermal decomposition:	No data available.
Flammability:	See GHS Classification in Section 2 if applicable

10. STABILITY AND REACTIVITY

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Stability:

The product is stable under normal handling and storage conditions.

Hazardous reactions:

Hazardous polymerization does not occur.

Materials to avoid:

Strong oxidizing agents
Strong reducing agents
Strong acids
Strong alkalies

Conditions / hazards to avoid:

Avoid exposure to high temperatures or direct sunlight.

Hazardous decomposition products:

Thermal decomposition giving flammable and toxic products :
Carbon oxides
Hazardous organic compounds
phosphorous oxides

11. TOXICOLOGICAL INFORMATION

Data on this material and/or a similar material are summarized below.

Data for SPEEDCURE TPO
Acute toxicity
Oral:

No deaths occurred. (rat) LD₀ > 5,000 mg/kg.

Dermal:

No deaths occurred. (rat) LD₀ > 2,000 mg/kg.

Skin Irritation:

Practically non-irritating. (rabbit) (24 h) (occluded exposure)

Eye Irritation:

Not irritating. (rabbit)

Skin Sensitization:

May cause allergic skin reaction. LLNA: Local Lymph Node Assay. (mouse) Skin allergy was observed.

Repeated dose toxicity

Repeated oral administration to rat / affected organ(s): kidney, liver, testes / signs: decreased growth rate, changes in organ structure or function, changes in organ weights

Subchronic oral administration to rat / affected organ(s): testes / signs: atrophy, blood chemistry changes

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Genotoxicity

Assessment in Vitro:

No genetic changes were observed in laboratory tests using: bacteria, animal cells

Developmental toxicity

Embryo-foetal development. Oral (rabbit, rat) / Absence of toxic effects for foetal development at non toxic maternal doses

Reproductive effects

Reproductive/Developmental Effects Screening Assay. Oral (rat) / Testicular toxicity

12. ECOLOGICAL INFORMATION

Chemical Fate and Pathway

Data on this material and/or a similar material are summarized below.

Data for SPEEDCURE TPO

Biodegradation:

Not readily biodegradable. (28 d) biodegradation 0 - 10 % / OECD Test Guideline 301 F

Octanol Water Partition Coefficient:

log Pow: = 3.1

Ecotoxicology

Data on this material and/or a similar material are summarized below.

Data for SPEEDCURE TPO

Aquatic toxicity data:

Toxic. Cyprinus carpio (Carp) 96 h LC50 = 1.4 mg/l

Aquatic invertebrates:

Toxic. Daphnia magna (Water flea) 48 h EC50 = 3.5 mg/l

Algae:

Toxic. Pseudokirchneriella subcapitata (green algae) 72 h ErC50 > 2.01 mg/l

Microorganisms:

Activated sludge 3 h EC50 (Respiration inhibition) > 1,000 mg/l (Nominal concentration)

13. DISPOSAL CONSIDERATIONS

Waste disposal:

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental

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permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Take appropriate measures to prevent release to the environment.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number : 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
Technical name : (Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-)
Class : 9
Packaging group : III
Marine pollutant : yes

International Maritime Dangerous Goods Code (IMDG)

UN Number : 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical name : (PHOSPHINE OXIDE, DIPHENYL(2,4,6-TRIMETHYLBENZOYL)-)
Class : 9
Packaging group : III
Marine pollutant : yes

15. REGULATORY INFORMATION

Chemical Inventory Status

US. Toxic Substances Control Act	TSCA	The components of this product are all on the TSCA Inventory.
Canadian Domestic Substances List (DSL)	DSL	All components of this product are on the Canadian DSL
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Conforms to
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Conforms to

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Australia Inventory of Chemical Substances (AICS) AICS Conforms to

United States – Federal Regulations

SARA Title III – Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA Title III – Section 313 Toxic Chemicals:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

Chemical name	CAS-No.	Reportable quantity
Acetic acid, butyl ester	123-86-4	5000 lbs

United States – State Regulations

New Jersey Right to Know

No components are subject to the New Jersey Right to Know Act.

Pennsylvania Right to Know

Chemical name	CAS-No.
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	75980-60-8

Acetic acid, butyl ester	123-86-4
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Pennsylvania Right to Know – Environmentally Hazardous Substance(s)

Chemical name	CAS-No.
Acetic acid, butyl ester	123-86-4

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

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16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Miscellaneous:

Other information: Refer to National Fire Protection Association (NFPA) Code 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Latest Revision(s):

Reference number: 200018865
Date of Revision: 03/26/2020
Date Printed: 03/27/2020

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