

Chemical Safety Data Sheet MSDS / SDS

PHOSPHOROUS ACID TRIISODECYL ESTERRevision Date:2026-05-31 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product identifier**

Product name : PHOSPHOROUS ACID TRIISODECYL ESTER
CBnumber : CB6406439
CAS : 25448-25-3
EINECS Number : 246-998-3
Synonyms : Triisodecyl Phosphite,PHOSPHOROUS ACID TRIISODECYL ESTER

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.
Uses advised against : none

Company Identification

Company : Chemicalbook
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone : 010-86108875

SECTION 2: Hazards identification**GHS Label elements, including precautionary statements**

Symbol(GHS)



Signal word

Warning

Precautionary statements

P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Hazard statements

H317 May cause an allergic skin reaction
H315 Causes skin irritation
H319 Causes serious eye irritation

SECTION 3: Composition/information on ingredients**Substance**

Product name	: PHOSPHOROUS ACID TRIISODECYL ESTER
Synonyms	: Triisodecyl Phosphite, PHOSPHOROUS ACID TRIISODECYL ESTER
CAS	: 25448-25-3
EC number	: 246-998-3
MF	: C30H63O3P
MW	: 502.79

SECTION 4: First aid measures

If inhaled

Remove person to fresh air and keep comfortable for breathing. Get medical advice/ attention if you feel unwell.

In case of skin contact

Take off all contaminated clothing immediately. Wash off with plenty of water. If skin irritation or rash occurs: Get medical advice/ attention.

In case of eye contact

Rinse with plenty of water. If easy to do, remove contact lens, if worn. If eye irritation persists: Get medical advice/ attention.

If swallowed

Get medical advice/ attention. Rinse mouth.

Most important symptoms and effects, both acute and delayed

None known.

SECTION 5: Firefighting measures

Suitable extinguishing media

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

Specific hazards during fire fighting

No information available.

Specific extinguishing methods

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for fire-fighters

Use personal protective equipment.

NFPA 704





HEALTH 2 Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. [diethyl ether](#), ammonium phosphate, iodine)

FIRE 1 Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. [mineral oil](#), ammonia)

REACT 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, [N₂](#))

SPEC.

HAZ.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Collect as much of the spill as possible with a suitable absorbent material.

SECTION 7: Handling and storage

Handling

Technical measures

Prevent generation of vapor or mist.

Local/Total ventilation

Ensure adequate ventilation. Use a local exhaust ventilation.

Advice on safe handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash hands and face thoroughly after handling.

Avoidance of contact

Oxidizing agents

Storage

Conditions for safe storage

Keep container tightly closed. Store in a cool and shaded area. Protect from moisture. Keep under inert gas.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures

Install a closed system or local exhaust.

Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection

Gas mask

Eye/face protection

Safety glasses

Face-shield

Skin and body protection

Protective suit

Hand protection

Protective gloves *Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

liquid

Color

colorless

Odor

No data available

Odor Threshold

No data available

pH

No data available

Melting point/freezing point

No data available

Boiling point/boiling range

166 °C(lit.)

Flash point

>230 °F

Evaporation rate

No data available

Flammability

No data available

Upper explosion limit / Upper flammability limit

No data available

Lower explosion limit / Lower flammability limit

No data available

Vapor pressure

0Pa at 25°C

Relative density

0.89

Solubility(ies)

very soluble in Ethanol,Toluene

Water solubility

0.02ng/L at 25°C

Solubility in other solvents

very soluble Solvent: Ethanol very soluble Solvent: Toluene

Partition coefficient: n-octanol/water (log value)

No data available

Autoignition temperature

No data available

Decomposition temperature

No data available

Viscosity**Viscosity, dynamic**

No data available

Viscosity, kinematic

No data available

Molecular weight

502.80 g/mol

Physical state

clear liquid

SECTION 10: Stability and reactivity**Reactivity**

No data available

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Exposure to air. Exposure to moisture.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Carbon monoxide, Carbon dioxide (CO₂), Oxides of phosphorus

SECTION 11: Toxicological information**Acute toxicity****Components****Triisodecyl Phosphite****Acute oral toxicity**

LD₅₀ (Rat): > 5 g/kg Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity

LC₅₀ (Rat): > 12,600 mg/m³ Exposure time: 1 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity

LD₅₀ (Rabbit): > 5 g/kg Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Classified based on available data. For more details, see section 2.

Serious eye damage/eye irritation

Classified based on available data. For more details, see section 2.

Respiratory or skin sensitization**Product****Assessment**

May cause sensitization by skin contact.

Components**Triisodecyl Phosphite****Assessment**

May cause sensitization by skin contact.

Germ cell mutagenicity

Classified based on available data. For more details, see section 2.

Carcinogenicity

Classified based on available data. For more details, see section 2.

Reproductive toxicity

Classified based on available data. For more details, see section 2.

STOT-single exposure

Classified based on available data. For more details, see section 2.

STOT-repeated exposure

Classified based on available data. For more details, see section 2.

Repeated dose toxicity

Classified based on available data. For more details, see section 2.

Aspiration toxicity

Classified based on available data. For more details, see section 2.

RTECS No.

TH1140000 (Triisodecyl Phosphite)

SECTION 12: Ecological information

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13: Disposal considerations

Disposal methods**Waste from residues**

Disposal in accordance with local and national regulations. Entrust disposal to a licensed waste disposal company.

Contaminated packaging

Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

SECTION 14: Transport information

International Regulations**IATA-DGR****UN/ID No.**

Not applicable

Proper shipping name

Not applicable

Class

Not applicable

Subsidiary risk

Not applicable

Packing group

Not applicable

IMDG-Code**UN number**

Not applicable

Proper shipping name

Not applicable

Class

Not applicable

Subsidiary risk

Not applicable

Packing group

Not applicable

EmS Code

Not applicable

Domestic regulation**GB 6944/12268****UN number**

Not applicable

Proper shipping name

Not applicable

Class

Not applicable

Subsidiary risk

Not applicable

Packing group

Not applicable

SECTION 15: Regulatory information**CH BAGREG**

On the inventory, or in compliance with the inventory

TSCA

All substances listed as active on the TSCA inventory

AICS

On the inventory, or in compliance with the inventory

DSL

All components of this product are on the Canadian DSL

ENCS

On the inventory, or in compliance with the inventory

ISHL

On the inventory, or in compliance with the inventory

KECI

On the inventory, or in compliance with the inventory

PICCS

On the inventory, or in compliance with the inventory

IECSC

On the inventory, or in compliance with the inventory

NZIoC

Not in compliance with the inventory

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.