SECTION 1: Identification of the substance/mixture and of the company

Product Identifier

Product Name: PowerNox™ 1680

Chemical Name: Tris(2,4-di-tert-butylphenyl) phosphite

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

Relevant applications identified: For industrial use

Details of the supplier of the safety data sheet

Company: Tintoll Performance Materials Co.,Ltd.
A-703, No. 50 Jialingjiang East St, Nanjing, China
Email: SDS@TinToll.com

Emergency Telephone Number: +86-25-8468-0091

SECTION 2: Hazardous identification

Emergency overview

NOTICE:

Contact with the eyes or skin may cause mechanical irritation.

AVOID CREATING DUST.

CAN FORM EXPLOSIVE DUST-AIR MIXTURES.

Product may present a nuisance dust hazard.

Refer to SDS Section 7 for Dust Explosion information.

State of matter: solid

Colour: white

Odour: odourless

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Irritation / corrosion:

Not irritating to eyes and skin.

Sensitization:

No sensitizing effect.

Chronic toxicity:

Carcinogenicity: None of the components in this product at concentrations greater than 0.1% are listed by IARC; NTP, OSHA or ACGIH as a carcinogen.

Reproductive toxicity: Not expected to cause reproductive toxicity. (based on composition)

Teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Genotoxicity: Mutagenicity tests revealed no genotoxic potential.

Potential environmental effects

Aquatic toxicity:

May be harmful to aquatic plant or animal life, especially if a large quantity is released.

SECTION 3: Composition/information on ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

CAS Number	Content (W/W)	Chemical name
31570-04-4	>= 50.0 - <= 100.0%	Phenol, 2,4-bis(1,1-dimethylethyl)-, phosphite (3:1)

SECTION 4: First aid measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

If on skin:

Wash thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, seek medical attention.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Seek medical attention if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the section 2 and/or in section 11, Further important symptoms and effects are so far not known.

SECTION 5: Firefighting measures

Flash point: > 150 °C (DIN 51584)

Autoignition: 400 °C (BAM)

380 °C (BAM)

Suitable extinguishing media:

dry powder, carbon dioxide, alcohol-resistant foam

Unsuitable extinguishing media for safety reasons:

water jet

Hazards during fire-fighting:

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Use personal protective clothing.

Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Avoid raising dust.

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Contain with dust binding material and dispose of.

SECTION 7: Handling and storage

Precautions for safe handling

General advice:

Closed containers should only be opened in well-ventilated areas.

Protection against fire and explosion:

Avoid dust formation. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

General advice:

Keep container tightly closed and dry; store in a cool place.

SECTION 8: Exposure Controls/Personal Protection

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Safety glasses with side-shields. Wear face shield if splashing hazard exists.

General safety and hygiene measures:

Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. Eye wash fountains and safety showers must be easily accessible.

SECTION 9: Physical and Chemical Properties

Form	crystalline, powder
Colour	white
Odour	odourless
pH value	6 (1 %(m), 20 - 25 °C) (as suspension)
Melting point	183-186 °C
Boiling point	not applicable
Sublimation point:	not applicable
density	1.03 g/cm3 (20 °C) (OECD Guideline 109) Information based on the main components.
Partitioning coefficient noctanol/ water (log Pow):	> 6 (20 - 25 °C) (OECD Guideline 117) Information based on the main components.
volatiles:	not determined
Solubility in water:	< 0.005 mg/l

SECTION 10: Stability And Reactivity

Dust explosion class:

Dust explosion class 2 (Kst-value 200 up to 300 bar m s-1) (St 2)

Conditions to avoid:

Avoid electro-static discharge.

Substances to avoid:

strong oxidizing agents, strong acids, strong bases

Hazardous reactions:

Dust explosion hazard.

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

240 °C (DTA)

> 350 °C (Temperature program (Lütolf))

> 350 °C (Isoperibolic (Lütolf oven))

SECTION 11:Toxicological Information

Acute toxicity

Oral:

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

Inhalation:

No data available concerning acute toxicity.

Dermal:

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (OECD Guideline 402)

Irritation / corrosion

Skin:

Species: rabbit

Result: non-irritant

Eye:

Species: rabbit

Result: non-irritant

Sensitization:

Species: guinea pig

Result: Non-sensitizing.

Optimization Test:

Other Information:

White leghorn hen - No signs of neurotoxicity.

SECTION 12: Ecological Effects

Fish

Acute:

OECD 203; ISO 7346; 92/69/EEC, C.1 Fish/LC50 (96 h): > 100 mg/l

No effects at the highest test concentration. Tested above maximum solubility.

Aquatic invertebrates

Acute:

OECD Guideline 202, part 1 Daphnia magna/EC50 (24 h): 510 mg/l

Aquatic plants

Toxicity to aquatic plants:

Guideline 92/69/EEC, C.3 Algae/EC50 (72 h): > 75.2 mg/l

Tested above maximum solubility. No toxic effects occur within the range of solubility. No effects at the highest test concentration.

Microorganisms

Toxicity to microorganisms:

OECD Guideline 209 activated sludge/EC50 (3 h): > 100 mg/l

Degradability / Persistence

Biological / Abiological Degradation

Test method: OECD 301B; ISO 9439; 92/69/EEC, C.4-C

Evaluation: Not readily biodegradable (by OECD criteria).

Bioaccumulation

calculated

Bioconcentration factor < 17

SECTION 13:Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. Do not discharge into drains/surface waters/groundwater.

Container disposal:

Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. Dispose of in accordance with national, state and local regulation**s**

SECTION 14:Transport Information

Land transport	USDOT
	Not classified as a dangerous good under transport regulations
Sea transport	IMDG
	Not classified as a dangerous good under transport regulations
Air transport	IATA/ICAO
	Not classified as a dangerous good under transport regulations

SECTION 15:Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released / listed

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

SECTION 16:Other Information

Further information

It must be recognized that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.