

SAFETY DATA SHEET

Product name	RDP	
Product id	7001	
Revision date	02/11/2015	Revision: 5
Supersedes	11/05/2014	

1. Identification of the substance & the company

Chemical name	Phosphoric acid, 1,3-phenylene tetraphenyl ester
Synonym(s)	Phosphoric trichloride, polymer with 1,3-benzenediol, phenyl ester.
Chemical formula	C30H24O8P2
Chemical family	Aryl phosphate
Molecular weight	574.4543
Type of product and use	Flame retardant
Company	Dongguan Baoxu Chemical Technology Ltd Caijing Business Bldg Dongguan CN 523071
Emergency Telephone	+1(213) 632-9361 between 0800-1700 (GMT-8)

2. Hazards identification

GHS classification	Product is not subject to classification according to GHS. No label elements required.
NFPA Ratings (Scale 0-4)	Health = 1, Fire = 1, Reactivity = 0

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3. Composition / information on ingredients

Components	Weight %	Index No.	EC No.	EU Classification
Tetraphenyl m-phenylene bis(phosphate) 57583-54-7	95-99		260-830-6	None

This product can also be described as:

CAS No. 125997-21-9 Phosphoric trichloride, polymer with 1,3-benzenediol, phenyl ester (99.9%)

CAS No. 115-86-6 Triphenyl phosphate (1-5%)

4. First-aid measures

Eye contact Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.

Skin contact Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before reuse. Get medical attention if irritation occurs.

Inhalation In case of inhalation, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

Ingestion If swallowed, wash mouth thoroughly with plenty of water. Get medical attention immediately.

NOTE: Never give an unconscious person anything to drink

Most important symptoms and effects, acute or delayed

None known

Notes to the physician Treat symptomatically and supportively.
No specific antidote.

5. Fire - fighting measures

Suitable extinguishing media Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions.

Unusual fire and explosion hazards When heated to decomposition, may release poisonous and corrosive fumes of carbon dioxide, carbon monoxide, phosphorus oxides and phosphoric acid.

Fire fighting procedure Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Contain runoff to prevent entry into water or drainage systems.

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6. Accidental release measures

Personal precautions Wear appropriate safety clothing and eye/face protection (see Section 8)

Methods for cleaning up Soak up with sand or other suitable absorbent and dispose of as solid waste. Collect in suitable and properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

Environmental precautions Prevent product from entering drains, ditches and rivers.

7. Handling and storage

Handling Keep containers tightly closed. Avoid bodily contact.

Storage Store in a dry, cool, well-ventilated area away from incompatible materials (see "materials to avoid").

8. Exposure controls / personal protection

Exposure Limits :

Components	ACGIH-TLV Data	OSHA (PEL) Data
Tetraphenyl m-phenylene bis(phosphate) 57583-54-7	Not determined	Not determined

Ventilation requirements Good general ventilation.

Personal protective equipment:

- **Respiratory protection** In case of insufficient ventilation wear suitable respiratory equipment.
- **Hand protection** Neoprene gloves
- **Eye protection** Chemical safety goggles
- **Skin and body protection** Use protective clothing impervious to this material.

Hygiene measures Do not eat, smoke or drink where material is handled, processed or stored. Wash hands thoroughly after handling and before eating or smoking. Safety shower and eye bath should be provided.

9. Physical and chemical properties

Appearance Colorless to pale yellow viscous liquid

Odor Slight characteristic.

Odor threshold Not available

pH Not available

Melting point/range -13°C

Boiling point/range >400°C

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Pour point	-12.22°C (10 °F)
Flash point	>230°C (>446°F) (closed cup)
Flammable/Explosion limits	Not flammable/Not explosive
Vapor pressure	2.59x10 ⁽⁻³⁾ Pa (20°C)
Solubility:	
- Solubility in water	8.9 µg/L
Partition coefficient (n-octanol/water)	Log Kow - 4.9
Auto-ignition temperature	Not self-ignitable
Decomposition temperature	>210°C
Viscosity	600mPas (25°C)
Bulk density	10.8 lbs/gal @ 25°C
Specific gravity	1.304(25°C)
Oxidising properties	Not oxidising

10. Stability and reactivity

Reactivity	It hydrolyzes slowly at normal temperatures in acidic or alkaline aqueous solutions.
Stability	Stable under normal conditions
Possibility of hazardous reactions	Not expected to occur
Conditions to avoid	Heating above decomposition temperature. Under wet alkaline or neutral conditions this product hydrolyzes slowly and nonviolently. Also, hydrolyzes at 150 F (66°C) or above in moist air to form phenol, resorcinol and allyl phosphoric acids. Prevent moisture condensation in the container.
Materials to avoid	Strong oxidizers, strong acids and strong alkalis.
Hazardous decomposition products	Carbon dioxide and carbon monoxide Phosphorus oxides

11. Toxicological information

- Rat oral LD50	> 5000 mg/kg
- Rat dermal LD50	> 2000 mg/kg
- Rat inhalation LC50	> 4.14 mg/l (4-hr)
- Dermal irritation (rabbit)	Not irritant
- Eye irritation (rabbit)	Not irritant
Dermal sensitization	Not a sensitizer

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Mutagenicity	Not mutagenic by the Ames Test. No micronucleus induction was detected in bone marrow erythrocytes of mice Not clastogenic in chromosome aberration test with Human lymphocytes.
Carcinogenicity	Not classified by IARC Not included in NTP 13th Report on Carcinogens
Reproductive toxicity	Pregnant rabbits were dosed orally with 50, 200 or 1000 mg/kg/day of this product on days 6 through 28 of gestation. There were no maternal toxicity or teratogenicity at any dose level. In a two-generation study in rats, no adverse effects on reproduction were seen at doses up to 20,000 ppm of this product in the diet.
Developmental toxicity	NOAEL 1000 mg/kg bw/day (rat, oral)
Teratogenicity	Not established
Specific Target Organ Toxicity (STOT) - Single exposure	No effects on specific target organs have been identified
Specific Target Organ Toxicity (STOT) - Repeat exposure	28-day repeated dose nose-only inhalation toxicity study (OECD Guideline 412), rats: NOEL 0.1 mg/L Target organs: respiratory: lung
- NOEL	> 5000 mg/kg/day immunological function (4 weeks oral mice)
Aspiration hazard	Not expected to occur
Neurotoxicity	Not neurotoxic

12. Ecological information

Aquatic toxicity :	
- LC50, Fish	> 100 mg/l (Brachydanio rerio)
- EC50, Daphnia magna	> 100 mg/l
- EC50, Freshwater algae	> 100 mg/l
Chronic toxicity	The No Observed Effect Concentration (NOEC) in Daphnia magna after exposure of 21 day is 0.021 mg/L
Biodegradation	Readily biodegradable
Bioaccumulative potential	Not expected to bioaccumulate BCF=969
Mobility in soil	Not relevant for this product

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Note: Not considered to be PBT or vPvB

13. Disposal considerations

Waste disposal Dispose of in a safe manner in accordance with local/national regulations.

Disposal of Packaging Dispose of in a safe manner in accordance with local/national regulations.

14. Transportation information

IMDG Not regulated

ADR/RID Not regulated

ICAO/IATA Not regulated

DOT Not regulated

15. Regulatory information

EU Reported in EINECS

USA Reported in the EPA TSCA Inventory.

Australia Listed in AICS

Canada Listed in DSL

China
- China inventory Listed in IECSC

- Hazardous Chemicals List The substance is not included

- Toxic Chemicals List The substance is not included

Japan Listed in ENCS

Korea Listed in ECL

New Zealand Inventory Listed in NZIoC

Philippines Listed in PICCS

Taiwan Listed

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16. Other information

This data sheet contains changes from the previous version in section(s)

3, 9, 11, 12, 13, 15

Health, Safety & Environment Policy

We will strive to ensure that our operations and products meet the needs of the present global community without compromising the ability of future generations to meet their needs We accept that the success of our business is dependent on the supply of products and services that will benefit society whilst ensuring human safety and protection of the environment and natural resources Within the framework of our commitment to the Responsible Care program, we will provide a healthy and safe work environment for employees and will responsibly manage our products at all stages of their life cycle in order to protect human health and the environment whilst maintaining high production standards of operation

TO MEET THIS COMMITMENT WE WILL: Comply with or exceed applicable national and international regulatory requirements and other requirements to which we subscribe Communicate openly and actively encourage dialogue with employees, customers and community concerning our products and operations Implement documented management systems consistent with and for promotion of the Responsible Care ethics

Develop and supply products that can be manufactured, transported, used and disposed of safely whilst best meeting the needs of our customers Regularly assess, continually improve and responsibly manage health, safety and environmental risks associated with products and processes throughout their life-cycles Share knowledge and expertise with others and seek to learn from and incorporate improved practices into our own operations

Educate and train employees, contractors and customers to improve their HSE performance Communicate up-to-date information to enable our workers, customers and other interested parties to handle our products in a safe and environmentally responsible manner Endeavor to work with customers, suppliers, distributors and contractors to foster the safe use, transport and disposal of our chemicals Support Product Stewardship programs in cooperation with customers, distributors and transporters

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End of safety data sheet