

Material Safety Data Sheet

Date Printed: 30/JUL/2007
Date Updated: 27/APR/2006
Version 1.4
Regulation (EC) No 1907/2006

1 - Product and Company Information

Product Name PENTA-SODIUM TRIPHOSPHATE
Product Number 72061

Company Sigma-Aldrich Pte Ltd
#02-14 The Capricorn, Sci. Park II
Singapore 117528
Singapore
Technical Phone # (65) 6779 1200
Fax (65) 6779 1822

2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Irritating to eyes, respiratory system and skin.

3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
SODIUM TRIPHOSPHATE PENTABASIC	7758-29-4	231-838-7	None

Formula Na₅P₃O₁₀
Molecular Weight 367.86 AMU
Synonyms Armofos * Empiphos stp-D * Freez-Gard FP 19 *
Natriumtripolyphosphat (German) * Pentasodium
triphosphate * Pentasodium tripolyphosphate *
Polygon * Rhodiaphos H 5 * Rhodiaphos LV * S 400
(phosphate) * Sodium phosphate (Na₅P₃O₁₀) *
Sodium triphosphate * Sodium triphosphate
(Na₅P₃O₁₀) * Sodium tripolyphosphate * STPP *
Thermphos * Thermphos L 50 * Thermphos N *
Thermphos SPR * Tripoly

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give
artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious
amounts of water.

AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts
of water for at least 15 minutes.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is
conscious. Call a physician.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

ENVIRONMENTAL PRECAUTION(S)

Avoid contaminating water supply. Avoid contaminating sewers and waterways with this material.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.

SPECIAL REQUIREMENTS: Hygroscopic.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

EXPOSURE LIMITS

Country	Source	Type	Value
	OSHA.	TWA	5 mg/m ³

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance

Physical State: Solid
Color: White

Property

Value

At Temperature or Pressure

pH	9.0 - 10.0	
BP/BP Range	N/A	
MP/MP Range	622 °C	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	N/A	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	Solubility in Water:Soluble.	

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions to Avoid: Moisture.

Materials to Avoid: Strong acids, Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Phosphorous oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: YK4570000

ACUTE TOXICITY

LD50

Skin

Rabbit

4,640 mg/kg

LD50

Oral

Rat

3,900 mg/kg

LD50

Oral

Rat
3120 mg/kg
Remarks: Behavioral:Coma. Behavioral:Somnolence (general depressed activity).

LD50
Intraperitoneal
Rat
525 MG/KG
Remarks: Behavioral:Excitement. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

LD50
Subcutaneous
Rat
2060 MG/KG

LD50
Oral
Mouse
3100 mg/kg
Remarks: Behavioral:Somnolence (general depressed activity). Peripheral Nerve and Sensation:Flaccid paralysis without anesthesia (usually neuromuscular blockage). Behavioral:Convulsions or effect on seizure threshold.

LD50
Intraperitoneal
Mouse
700 MG/KG
Remarks: Kidney, Ureter, Bladder:Changes in tubules (including acute renal failure, acute tubular necrosis).

LD50
Subcutaneous
Mouse
900 MG/KG

LD50
Intravenous
Mouse
71 MG/KG

LD50
Skin
Rabbit
> 4640 mg/kg
Remarks: Lungs, Thorax, or Respiration:Dyspnea. Behavioral:Somnolence (general depressed activity).

LD50
Subcutaneous
Guinea pig
750 MG/KG

IRRITATION DATA

Skin
Rabbit
500 mg
24H
Remarks: Moderate irritation effect

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Gastrointestinal disturbances. Exposure can cause:

ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes eye irritation.

Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

Non-hazardous for road transport.

IMDG

Non-hazardous for sea transport.

IATA

Non-hazardous for air transport.

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xi

Irritant.

R-PHRASES: 36/37/38

Irritating to eyes, respiratory system and skin.

S-PHRASES: 26-36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1

ID-Number: 1209

KBwS-Decision

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The

information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

DISCLAIMER

For R&D use only. Not for drug, household or other uses.