

# Safety Data Sheet

## Section 1 - Chemical Product and Company Identification

**Product Name:** Sodium Hexametaphosphate (SHMP)

**Synonyms:** Sodium Polyphosphates, Polyphosphate Sodium Salt, Phosphate Glass, Calgon, Water Soluble

**Chemical Formula :** Na<sub>6</sub>[(PO<sub>3</sub>)<sub>6</sub>]

**Supplier/Further Information:** Linphos Chemical, Inc

**Address:** 113 Progress Drive, Rincon, GA 31326, the United States

**Phone:** (912)-677-9094 (281)-733-1634

## Section 2 - Composition, Information on Ingredients

Component	Weight%	CAS#	ChemSpider ID
Sodium Hexametaphosphate	>=99%	68915-31-1	23340
PubChem CID	UNII	ECHA InfoCard	EC #
24968	N40N91DW96	100.030.299	233-343-1

## Section 3 - Hazards Identification

### Hazard Classification

◆ **Classification of the substance or mixture**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

◆ **GHS Label elements, including precautionary statements**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

◆ **Hazards not otherwise classified (HNOC) or not covered by GHS - none**

**Emergency Telephone Number: CHEMTRECO**

Inside the USA: 800-424-9300

Outside the USA: 001-703-527-3887

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## Emergency Overview

Caution! May cause irritation to skin, eyes, and respiratory tract. May be harmful if swallowed or inhaled.

### SAF-T-DATA(tm) Ratings

**Health Rating:** 2 - Moderate (Life)

**Flammability Rating:** 0 - None. This product is not flammable.

**Reactivity Rating:** 0 - None

**Contact Rating:** 2 - Moderate

**Lab Protective Equip:** GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

**Storage Color Code:** Green (General Storage)

**Environmental Hazards:** This product is not expected to have adverse effects to the aquatic environment.

### Protential Health Effects

Many of the systemic effects given below were taken from toxicity information for other phosphates.

**Inhalation:** May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

**Ingestion:**

Phosphates are slowly and incompletely absorbed when ingested, and seldom result in systemic effects. Such effects, however, have occurred. Symptoms may include vomiting, lethargy, diarrhea, blood chemistry effects,

heart disturbances and central nervous system effects. The toxicity of phosphates is because of their ability to sequester calcium. Systemic acidosis may result as this material is believed to hydrolyze into phosphoric acid when ingested.

**Skin Contact:** May cause irritation with redness and pain.

**Eye Contact:** May cause irritation, redness and pain.

**Chronic Exposure:**

May sequester calcium and cause calcium phosphate deposits in the kidneys. Chronic ingestion or inhalation may induce systemic phosphorous poisoning. Liver damage, kidney damage, jaw/tooth abnormalities, blood disorders and cardiovascular effects can result.

**Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders or eye problems, jaw/tooth abnormalities, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

## Section 4 - First Aid Measures

### General

This product has low oral toxicity and is minimally irritating to the skin and eyes. Treatment is controlled removal of exposure and symptomatic and supportive care.

### Eye contact

Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation occurs and persists. The dry material may cause foreign body irritation in some individuals.

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**Skin contact**

Take off immediately all contaminated clothes and shoes. Wash off with plenty of water immediately for at least 15 min. Prolonged contact with the dry material may cause drying or chapping of the skin. Get medical attention immediately if symptoms occur. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Inhalation**

Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Inhalation of the dust may cause coughing and sneezing. Get medical attention immediately if symptoms occur.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water. Make victim drink water (two glasses at most). Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

**Most important symptoms and effects:** None reasonably foreseeable.

**Notes to Physician:** Treat symptomatically

## Section 5 - Fire Fighting Measures

**Fire:** Not considered to be a fire hazard.

**Explosion:** Not considered to be an explosion hazard.

**Fire Extinguishing Media:** Use any means suitable for extinguishing surrounding fire.

• Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

• Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

**Special Information**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

**Further information**

Prevent fire extinguishing water from contaminating surface water or the ground water system.

## Section 6 - Accidental Release Measures

**Personal precautions**

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

**Advice for non-emergency personnel**

Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

**Environmental precautions**

Should not be released into the environment. Do not let product enter drains.

Small quantities: Presents no environmental problems.

Large quantities: As general precaution, avoid discharge into the environment.

**Methods for cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions. Take up dry. Dispose of properly-Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Clean up affected area. Avoid generation of dusts. Sweep, scoop or vacuum and place into containers for disposal. Flush area with water.

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## Section 7 - Handling and Storage

### Handling

Good industrial practice in housekeeping and personal hygiene should be followed. Wear personal protective equipment/face protection. Ensure adequate ventilate area of leak or spill. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Use only in a chemical fume hood. Discard contaminated shoes. Wash hands immediately after handling. Remove material from clothing.

**Storage:** Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

### Engineering measures

Prevention of eye and skin contact may be required under normal use conditions. However, severe agitation or dispersion into the work environment may require enclosure of the process and local exhaust ventilation at the source to prevent release into the air. If the work environment controls are not implemented, then personal protection for inhalation, skin and eye may be required.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** None under normal use conditions.

### Exposure Limits: None

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Personal Respirators (NIOSH Approved)

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

**WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### Personal Protective Equipment

#### Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Maintain eye wash fountain and quick-drench facilities in work area.

#### Skin and body protection

Wear appropriate protective gloves and clean body-covering clothing to prevent skin exposure.

Recommendation: Full/Splash contact; Material: Nitrile rubber; Minimum layer thickness: 0.11 mm; Break through time: 480 min; Material tested: KCL 741 Dermatril® L

#### Respiratory Protection

No protective equipment is needed under normal use conditions. Required when dusts are generated. In case of insufficient ventilation, wear suitable respiratory equipment. Use approved respiratory protective equipment as described in the U.S. OSHA 29 CFR 1910.134 or European Standard EN149.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice.

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## Section 9 - Physical and Chemical Properties

Physical State: Solid	Appearance: White powder or plates
Odor: odorless	Odor Threshold: No information available
pH (1% Solution): 7.0 or 6.0-7.7	Melting Point/Range: 600 - 640 °C / 1110 - 1185 °F
Solid: No date available	Flash Point: Not applicable
Boiling Point/Range: No information available	Flammability (solid,gas): No information available
Evaporation Rate: Not available	Upper: No data available
Flammability or explosive limits	Lower: No data available
Vapor Pressure: No information available	Vapor Density: Not applicable
Specific Gravity: No information available	Bulk Density: 0.8 - 1.5 Kg/L
Solubility: Soluble in water	Density: 1.25
Water solubility: < 150 g/l (partly soluble)	Partition coefficient; n-octanol/water: No data available
Autoignition Temperature: No information available	Decomposition Temperature: No information available
Viscosity: Not applicable	Molecular Formula: Na <sub>6</sub> P <sub>6</sub> O <sub>18</sub>
Molecular Weight: 611.77	VOC Content(%): 0

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under standard ambient conditions (room temperatures and pressures).

**Chemical Reactivity:** No Data available

**Conditions to Avoid:** Incompatible materials, metals, excess heat, dust formation, and excessive moisture. .

**Incompatibilities with Other Materials:** Strong oxidizing agents

**Hazardous Decomposition Products:** Oxides of phosphorus, Sodium oxides

**Hazardous Polymerization:** Does not occur.

## Section 11 - Toxicological Information

Acute toxicity estimate Oral - 3,053mg/kg

LD50 Oral (Rat) - 3,053mg/kg

LD50 Dermal (Rabbit) - >7,940mg/kg

LC50 Inhalation - N/A

Eye Irritation (rabbit): 1.3/110.0; slightly irritating

Skin irritation (rabbit): 0.0/8.0; nonirritating

Respiratory or skin sensitization: No data available

Carcinogenicity:

IARC: Not Listed

NTP: Not Listed

ACGIH: Not Listed

OSHA: Not Listed

Mexico: Not Listed

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## Section 12 - Ecological Information

**Ecotoxicity:** Do not empty into drains.

**Persistence and Degradability:** No data available

**Mobility (in soil):** Will likely be mobile in the environment due to its water solubility.

**Bioaccumulation/ Accumulation Potential:** No data available.

**Other adverse effects:** No data available

## Section 13 - Disposal Considerations

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

IMDG/IMO (UN): Not classified as dangerous goods

ICAO/IATA: Not classified as dangerous goods

RID/ADR: Unknown

Canadian TDG: Not classified as dangerous goods

U.S. DOT: Not classified as dangerous goods

## Section 15 - Regulatory Information

### EC label

Hazard symbol: none

Risk phrase R36/37/38 – irritating to eyes, respiratory system and skin.

Safety phrase S26 – In case of contact with eyes, immediately flush with plenty of water and seek medical attention

S36 – Wear suitable protective clothing

### Chemical Inventory

USA TSCA: Listed

Canada DSL: Listed

EC: Listed

Japan: Listed

Australia: Listed

Korea: Listed

Philippines: Listed

China: Listed

### Additional Information

#### SARA 302 Components

This material does not contain any components with a section 302 EHS TPQ.

#### SARA 313 Components

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.

#### SARA 311/312 Hazards

No SARA Hazards

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