



SODIUM PHOSPHATE TRIBASIC

Material Safety Data Sheet

Mallinckrodt Inc.
Science Products Division
P.O. Box M
Paris, Kentucky 40361

Emergency Telephone Number
314-982-5000

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PRODUCT IDENTIFICATION:

Synonyms: Trisodium phosphate, dodecahydrate; phosphoric acid, trisodium salt dodecahydrate

Formula CAS No.: 10101-89-0 (Hydrated)
TSCA CAS No.: 7601-54-9 (Anhydrous)

Molecular Weight: 380.12

Hazardous Ingredients:
CAS# 1310-73-2 Sodium Hydroxide.

Chemical Formula: $\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O}$

PRECAUTIONARY MEASURES

DANGER! CAUSES BURNS. HARMFUL IF SWALLOWED OR INHALED.

Do not get in eyes, on skin, or on clothing.
Avoid breathing dust.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

EMERGENCY/FIRST AID

If swallowed, DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person.
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes.
In all cases call a physician.
SEE SECTION 5.

DOT Hazard Class: ORM-E

Physical Data

SECTION 1

Appearance: Transparent, colorless crystals.

Odor: Odorless.

Solubility: 30 gm in 100gm of water.

Boiling Point: Loses 11 H_2O at 100°C (212°F) (decomposes)

Vapor Density (Air=1): No information found.

Melting Point: ca 75°C (ca 167°F).

Vapor Pressure (mm Hg): No information found.

Density: 1.6

Evaporation Rate: No information found.

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SECTION 2

Fire and Explosion Information

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.

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.

Reactivity Data

SECTION 3

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Oxides of phosphorus and the contained metal.

Hazardous Polymerization:

This substance does not polymerize.

Incompatibilities:

Acidic materials.

Leak/Spill Disposal Information

SECTION 4

Ventilate area or leak or spill. Clean-up personnel may require protective clothing and respiratory protection from dust.
Spills: Sweep up and containerize for reclamation or disposal. Avoid dust dispersal.
Disposal: Whatever cannot be saved for reclamation may be disposed as hazardous waste in an approved waste disposal facility.

Ensure compliance with local, state and federal regulations.

Sodium Phosphate Tribasic

Health Hazard Information

A. Exposure/Health Effects

Inhalation:

Caustic, irritant dust, may cause burning or discomfort in the respiratory passages. Coughing, sneezing and possible pain are symptoms.

Ingestion:

Caustic alkaline action with possible irritation or burning of the mucous membrane in the mouth and esophagus. Abdominal pain, stricture, vomiting and diarrhea may follow the ingestion of appreciable amounts.

Skin Contact:

Caustic burns may occur on prolonged contact with moist skin. Reddening, soreness or possible damage to the derma may occur.

Eye Contact:

Caustic irritant. Pain, tearing and redness are symptoms.

Chronic Exposure:

Continued ingestion or absorption of phosphate can lead to renal disorders due to blockage of tubules with calcium phosphate.

Aggravation of Pre-existing Conditions:

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

B. FIRST AID

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Exposure:

Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Exposure:

Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA

(NIECS, 1982)

Oral rat LD50: 7.4 g/kg.

Occupational Control Measures

SECTION 6

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL):
2mg/m³ sodium hydroxide.
-ACGIH Threshold Limit Value (TLV):
2mg/m³ ceiling sodium hydroxide.

Ventilation System:

A system of local exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the dust or vapor at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators
(NIOSH Approved)

If the TLV is exceeded, a dust/mist respirator with chemical goggles may be worn, in general, up to ten times the TLV. Consult respirator supplier for limitations. Alternatively, a supplied air full facepiece respirator or airline hood may be worn.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles. Contact lenses should not be worn when working with this material.
Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information

SECTION 7

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage.

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