

1.

Safety Data Sheet Metaphos

Date of Revision: 2/5/2015

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Sodium Hexametaphosphate

Chemical Formula: Na₆P₆O₁₈

CAS Number: 10124-56-8

Other Designations: Hexametaphosphate, sodium salt; SHMP; Metaphosphoric acid, hexadecium salt; Sodium polyphosphates. glassy

Derivation:

General Use: Softening water without precipitate formation, as in dyeing, laundering, textile processing, and washing

operations: corrosion inhibitor in de-icing salt preparations: frozen desserts; pre-tanning hides in the manufacture of leather:

dispersing clays and pigments; threshold treatment for scale; and corrosion prevention.

Emergency Telephone Numbers:

800-255-3924 ChemTel. (United States)

+ 1 01 813-248-0585 (Outside the United States)

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Section 2 - Hazards Identification

***** Emergency Overview *****

CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. MAY BE HARMFUL IF SWALLOWED OR INHALED.

Potential Health Effects

Primary Entry Routes: Skin contact and inhalation

Target Organs:

Hazard pictograms



Signal words: Warning

Hazard statements:

H319: Causes serious eye irritation.

H315: Causes skin irritation.

H.D5: May cause respiratory irritation.

Precautionary statements

P280: Wear protective gloves, protective clothing, eye protection, face protection.

P271: Use only outdoors or in a well-ventilated area.

P261: Avoid breathing dust, fume, gas, mist, vapors, spray.

P264: Wash thoroughly after handling.

P302+P351: IF ON SKIN: Wash with plenty of soap and water.

P332+P313: If skin irritation occurs: Get medical advice.

P305+ P351 +P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P363: Wash contaminated clothing before reuse.

P403+P233: Store in well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of this material and its container to hazardous or special waste collection point. in accordance with local, regional, national and/or international regulation.

Acute Effects

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

Eye: May cause irritation, redness and pain.

Skin: May cause irritation with redness and pain.

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.

Carcinogenicity: IARC, NTP, and OSHA do not list Sodium Hexametaphosphate as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure: 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.

Chronic Effects: 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.

Section 3 – Composition/Information on Ingredients

Ingredient Name	CAS Number	EINECS/ELINCS	% wt or % vol
Sodium Hexametaphosphate	10124-56-8 (68915-31-1)	233-343-1	99

Trace Impurities:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEWL	TWO	STEL	TWA	STEL	
Sodium Hexametaphosphate	15 mg/m ³	None estab.	10 mg/m ³	None estab.	None estab.	None estab.	None estab.

Section 4 - First Aid Measures

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

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally.

Get medical attention if irritation persists.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Ingestion:

After first aid, get appropriate in-plant, paramedic or community medical support.

Note to Physicians:

Section 5 - Fire-Fighting Measures

Flash Point: N/A

Flash Point Method:

Burning Rate:

Autoignition Temperature: N/A

LEL: N/A

UEL: N/A

Flammability Classification: not flammable

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

Unusual Fire or Explosion Hazards: N/A

Hazardous Combustion Products:

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products. Wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Sweep, scoop or vacuum and remove.

Large Spills

Containment: For large spills, dike far ahead of spill for later disposal. Do not release into sewers or waterways.

Cleanup: Vacuuming or wet sweeping may be used to avoid dust. Flush residual spill area with water.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls:

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls:

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient

oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: solid

Appearance: White powder or plates

Odor: odorless

Odor Threshold:

Vapor Pressure:

Vapor Density (Air=1):

pH: 6.0-7.7

Water Solubility: soluble

Other Solubilities:

Boiling Point:

Freezing/Melting Point: 640°C (1184°F)

Density: 2.181

Specific Gravity (H₂O=1, at 4°C):

Formula Weight: 611.77

Section 10 - Stability and Reactivity

Stability: Sodium Hexametaphosphate is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization will not occur.

Chemical Incompatibilities: none known

Conditions to Avoid: No information found.

Hazardous Decomposition Products: Sodium and phosphorus oxides may form when heated to decomposition.

Acute Oral Effects:
Rat oral. LD50: 6600 mg/kg
practically nontoxic

Section 11- Toxicological Information

Toxicity Data:*

Dermal - rabbit LD50: > 7.940 rug/kg: practically nontoxic

Eye Irritation - rabbit: 1.31 11 0.0: slightly irritating

Skin Irritation - rabbit (24-hr exp.): 0.0/8.0: nonirritating

*See NIOSH. RTECS (OY3675000) for additional toxicity data.

Section 12 - Ecological Information

Ecotoxicity: not known

Environmental Fate:

Environmental Degradation:

Soil Absorption/Mobility:

Section 13 - Disposal Considerations:

Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations. This material when discarded is not a hazardous waste as that term is defined by the Resource Conservation and Recovery Act (RCRA). 40 CFR 261. Dry material may be land-filled or recycled in accordance with local, state and federal regulations. Consult your attorney or appropriate regulatory officials for information on such disposal.

Section 14 – Transport Information

Not regulated for transportation

US DOT (49 CFR 172.101): PSN: Hazard Class: UN Number: Packing Group:	IATA PSN: Hazard Class: UN Number: Packing Group:
TDG PSN: Hazard Class: UN Number: Packing Group:	IMDG/IMO PSN: Hazard Class: UN Number: Packing Group:

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 10124-56-8 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

CAS# 10124-56-8: 5000 lb. final RQ (Listed under Sodium phosphate, tribasic): 2270 kg final R

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 10124-56-8: acute.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class I Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 10124-56-8 is listed as a Hazardous Substance under the CW A. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 10124-56-8 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts, and California. No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available,

Risk Phrases:

Safety Phrases:

S 24/25: Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 10124-56-8: 1

Canada - DSL/NDSL

CAS# 10124-56-8 is listed on Canada's DSL List.

Canada - WHMIS

This product does not have a WHMIS classification.

Section 16 - Other Information

Disclaimer: All information, recommendations and suggestions appearing herein are based upon sources believed to be reliable: However, it is the user's responsibility to determine the safety, toxicity and suitability for its own use of this product. The manufacturer does not assume any liability arising out of the use by others of this product.

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