

**MATERIAL SAFETY DATA SHEET**

**SUPPLIER:** Mallinckrodt Baker, Inc.  
Address: 222 Rod School Lane  
Phillipsburg, NJ 08865

**24 Hour Emergency Numbers: 908-559-2151**  
**CHEMTREC: 800-424-9300**  
**CANUTE: National Response 513-996-6555**  
**Outside US and Canada: 202-483-7515**

NOTE: CHEMTREC, CANUTE and National Response Center emergency numbers to be used on in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

\*\*\*\*\*PRODUCT IDENTIFICATION\*\*\*\*\*

Product Name/Model No: SA-0590 Sodium Hexameta Phosphate

**MSDS NUMBER: S3866 Effective Date: 11-17-99**

\*\*\*\*\*PRODUCT IDENTIFICATION\*\*\*\*\*

**SYNONYMS:** Hexameta Phosphate, Sodium Salt; SHMP; Metaphosphoric Acid, Hexadosium Salt; Sodium Polyphosphates, Glassy.  
**CAS NO.** 68915-31-1  
**MOLECULAR WEIGHT:** Not applicable to mixtures  
**CHEMICAL FORMULA:** Na(x=2) P<sub>x</sub> O(3x+1) x = 6 to 21  
**PRODUCT CODES:** JT Baker V030  
Mallinckrodt: E024

\*\*\*\*\*COMPOSITION/INFORMATION ON INGREDIENTS\*\*\*\*\*

INGREDIENT	CAS NUMBER	PERCENT	HAZARDOUS
Polyphosphoric Acids, Sodium Salts	68915-31-1	90-100 %	YES

\*\*\*\*\*HAZARDS IDENTIFICATION\*\*\*\*\*

**Emergency overview**

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

J.T. Baker SAF-T-DATA™ Ratings (Provided here for your convenience)

**Health Rating:** 1 – Slight  
**Flammability Rating:** 0 – None  
**Reactivity Rating:** 0 – None  
**Contact Rating:** 1 – Slight  
**Lab Protective Equip:** GOGGLES; LAB COAT  
**Storage Color Code:** Orange ( General Storage )

### 3. Potential Health Effects

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

<b>Inhalation:</b>	May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.
<b>Ingestion:</b>	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.
<b>Skin Contact:</b>	May cause irritation with redness and pain.
<b>Eye Contact:</b>	May cause irritation, redness and pain.
<b>Chronic Exposure:</b>	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.
<b>Aggravation of: Pre-existing Conditions:</b>	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.

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### 4. First Aid Measures

<b>Inhalation:</b>	Remove to fresh air. Get medical attention for any breathing difficulty.
<b>Ingestion:</b>	Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Skin Contact:</b>	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.
<b>Eye Contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

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### 5. Fire Fighting Measures

<b>Fire:</b>	Not considered to be a fire hazard.
<b>Explosion:</b>	Not considered to be an explosion hazard.
<b>Fire Extinguishing Media:</b>	Use any means suitable for extinguishing surrounding fire.
<b>Special Information:</b>	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

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### 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Small amounts of residue may be flushed to sewer with plenty of water.

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### 7. Handling and Storage

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

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8. Exposure Controls/Personal Protection

**Airborne Exposure Limit:** None established.  
**Ventilation System:** In general, dilution ventilation is satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.  
**Personal Respirators: (NIOSH Approved) :** For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. 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.  
**Skin Protection:** Wear protective gloves and clean body-covering clothing.  
**Eye Protection:** Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

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9. Physical and Chemical Properties

**Appearance:** White powder or plates.  
**Odor:** No information found.  
**Solubility:** Soluble in water.  
**Density:** 1.25.  
**pH:** No information found.  
**Volatiles by Volume:**  
**@ 21C (70F):** 0 .  
**Boiling Point:** 1500C (2732F).  
**Melting Point:** 550C (1022F)  
**Vapor Density (Air=1):** No information found.  
**Vapor Pressure (mm Hg):** No information found.  
**Evaporation Rt (BuAc=1):** No information found.

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10. Stability and Reactivity

**Stability:** Stable under ordinary conditions of use and storage.  
**Hazardous :**  
**Decomposition Products:** Sodium and phosphorus oxides may form when heated to decomposition.  
**Hazard. Polymerization:** Will not occur  
**Incompatibilities:** No information found  
**Conditions to Avoid:** No information found  
**Boiling Point:** 1500C (2732F).  
**Melting Point:** 550C (1022F)  
**Vapor Density (Air=1):** No information found.  
**Vapor Pressure (mm Hg):** No information found.  
**Evaporation Rt (BuAc=1):** No information found.

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11. Toxicological Information

Oral rat LD50:3053 mg/kg

-----/ Cancer List / -----

<u>Ingredient</u>	<u>----- NTP Carcinogen -----</u>		<u>IARC Category</u>
	<u>Known</u>	<u>Anticipated</u>	
Polyphosphoric Acids, Sodium Salts (68915-31-1)	NO	NO	NONE

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12. Ecological Information

**Environmental Fate:** No information found.  
**Environmental Toxicity:** No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transportation Information

Not regulated

15. Regulatory Information

-----\ Chemical Inventory Status – Part 1 \ -----

<u>Ingredient</u>	<u>TSCA</u>	<u>EC</u>	<u>JAPAN</u>	<u>AUSTRALIA</u>
Polyphosphoric Acids, Sodium Salts (68915-31-1)	YES	YES	YES	YES

-----\ Chemical Inventory Status – Part 2 \ -----

<u>Ingredient</u>	<u>KOREA</u>	<u>DSL</u>	<u>----- CANADA -----</u>	<u>PHILADELPHIA</u>
			<u>NDSL</u>	
Polyphosphoric Acids, Sodium Salts (68915-31-1)	YES	YES	NO	YES

-----\ Federal, State & International Regulations – Part 1 \ -----

<u>Ingredient</u>	<u>-- SARA 302 --</u>	<u>----- SARA 313 -----</u>
	<u>RQ</u>	<u>LIST</u>
	<u>TRQ</u>	<u>CHEM.CATG.</u>
Polyphosphoric Acids, Sodium Salts (68915-31-1)	NO	NO

-----\ Federal, State & International Regulations – Part 2 \ -----

<u>Ingredient</u>	<u>CERCIA</u>	<u>-RCRA-</u>	<u>-TSCA-</u>
		<u>261.33</u>	<u>8(d)</u>
Polyphosphoric Acids, Sodium Salts (68915-31-1)	NO	NO	NO

**Chemical Weapons:**

**Convention:** NO      **TSCA12(b):** NO      **CDTA:** NO  
**SARA311/312:** **Acute:** YES    **Chronic:** YES.    **Fire:** NO    **Pressure:** NO  
**Reactivity:** NO      (Mixture / Solid)

**Australian Hazchem:**

**Code:** No information found.  
**Poison Schedule:** No information found.  
**WHMIS:** This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

**NFPA Ratings:** Health: **1** Flammability: **0** Reactivity: **0**  
**Label Hazard Warning:** CAUTION! MAY BE IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY BE HARMFUL IF SWALLOWED OR INHALED.  
**Label Precautions:** Keep container closed.  
Use with adequate ventilation.  
Avoid breathing dust.  
Wash thoroughly after handling.  
Avoid contact with eyes, skin and clothing.  
**Label First Aid:** If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists. If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.  
**Product Use:** Laboratory Reagent.  
**Revision Information:** No changes.  
**Disclaimer:** \*\*\*\*\*  
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