



J.T. Baker Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865

24-Hour Emergency Telephone 908-859-2151  
National Response Center 800-424-8802  
Chemtrec 800-424-9300

National Response In Canada  
CANUTEC 613-996-6666

Outside U.S. and Canada  
Chemtrec 202-483-7616

**MATERIAL SAFETY DATA SHEET**

FICHE  
SIGNALÉTIQUE

HOJAS DE DATOS  
DE SEGURIDAD

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Effective: 03/09/92

meta-Phosphoric Acid

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J.T. BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865

SECTION I - PRODUCT IDENTIFICATION





Product Name: meta-Phosphoric Acid  
Common Synonyms: Vitreous Sodium Acid Metaphosphate  
Chemical Family: Solid Mixtures  
Formula:  $HPO_3$   
Formula Wt.: 79.98  
CAS No.: 37267-86-0  
NIOSH/RTECS No.: N/A  
Product Use: Laboratory Reagent  
Product Codes: 0252

PRECAUTIONARY LABELING

BAKER SAF-T-DATA\* System

HEALTH <b>1</b> SLIGHT	FLAMMABILITY <b>0</b> NONE	REACTIVITY <b>1</b> SLIGHT	CONTACT  <b>3</b> SEVERE
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Laboratory Protective Equipment

 GOGGLES	 LAB COAT	 VENT HOOD	 PROPER GLOVES
------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------

U.S. Precautionary Labeling

**DANGER!**

CAUSES BURNS.

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



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===== PRECAUTIONARY LABELING (CONTINUED) =====

International Labeling

Avoid contact with eyes. After contact with skin, wash immediately with plenty of water. Keep container tightly closed.

SAF-T-DATA\* Storage Color Code: White (corrosive)

===== SECTION II - COMPONENTS =====

<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>
meta-Phosphoric Acid	37267-86-0	35-40	N/E	N/E
Sodium Metaphosphate	50813-16-6	55-65	N/E	N/E

===== SECTION III - PHYSICAL DATA =====

Boiling Point: 260°C (500°F) (at 760 mm Hg)      Vapor Pressure (mmHg): 0.03 (20°C)

Melting Point: 21°C (69°F) (at 760 mm Hg)      Vapor Density (air=1): 3.4

Specific Gravity: 1.70 (H<sub>2</sub>O=1)      Evaporation Rate: N/A

Solubility(H<sub>2</sub>O): Complete (100%)      % Volatiles by Volume: 0 (21°C)

pH: 1.5 (0.1M solution)

Odor Threshold (ppm): N/A      Physical State: Solid

Coefficient Water/Oil Distribution: N/A

Appearance & Odor: Clear, colorless solid.



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 SECTION IV - FIRE AND EXPLOSION HAZARD DATA  
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Flash Point (Closed Cup): N/A NEPA 704M Rating: 2-0-0

Autoignition Temperature: N/A

Flammable Limits: Upper - N/A Lower - N/A

Fire Extinguishing Media  
 Use extinguishing media appropriate for surrounding fire.

Special Fire-Fighting Procedures  
 Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move exposed containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire & Explosion Hazards  
 Closed containers exposed to heat may explode.

Toxic Gases Produced  
 oxides of phosphorus

Explosion Data-Sensitivity to Mechanical Impact  
 None identified.

Explosion Data-Sensitivity to Static Discharge  
 None identified.

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 SECTION V - HEALTH HAZARD DATA  
 =====

Threshold Limit Value (TLV/TWA): Not Established

Short-Term Exposure Limit (STEL): Not Established

Permissible Exposure Limit (PEL): Not Established

Toxicity of Components  
 No information is available  
 Carcinogenicity: NTP: No IARC: No Z List: No OSHA Reg: No

Carcinogenicity  
 None identified.



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 SECTION V - HEALTH HAZARD DATA (CONTINUED)  
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Reproductive Effects

None identified.

Effects of Overexposure

INHALATION: irritation of nose and throat, may be harmful  
 SKIN CONTACT: severe irritation or burns  
 EYE CONTACT: severe irritation or burns  
 SKIN ABSORPTION: none identified  
 INGESTION: none identified  
 CHRONIC EFFECTS: none identified

Target Organs

none identified

Medical Conditions Generally Aggravated by Exposure

none identified

Primary Routes of Entry

none indicated

Emergency and First Aid Procedures

INGESTION: If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.  
 INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.  
 SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before re-use.  
 EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

SARA/TITLE III HAZARD CATEGORIES and LISTS

Acute: Yes Chronic: Yes Flammability: No Pressure: No Reactivity: No

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 SECTION V - HEALTH HAZARD DATA (CONTINUED)  
 =====

Extremely Hazardous Substance: No  
 CERCLA Hazardous Substance: No  
 SARA 313 Toxic Chemicals: No  
 TSCA Inventory: Yes

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 SECTION VI - REACTIVITY DATA  
 =====

Stability: Stable Hazardous Polymerization: Will not occur  
 Conditions to Avoid: none identified  
 Incompatibles: most common metals, strong bases  
 Decomposition Products: oxides of phosphorus

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 SECTION VII - SPILL & DISPOSAL PROCEDURES  
 =====

Steps to be Taken in the Event of a Spill or Discharge

Wear self-contained breathing apparatus and full protective clothing. With clean shovel, carefully place material into clean, dry container and cover; remove from area. Flush spill area with water.

Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: D002 (Corrosive Waste)

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 SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT  
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Ventilation: Use adequate general or local exhaust ventilation to keep fume or dust levels as low as possible.

Respiratory Protection: None required where adequate ventilation conditions exist. If airborne concentration is high, a dust/mist respirator is recommended. If concentration exceeds capacity of respirator, a self-contained breathing apparatus is advised.



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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT (CONTINUED)

Eye/Skin Protection: Safety goggles, uniform, apron, proper gloves are recommended.

SECTION IX - STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA\* Storage Color Code: White (corrosive)

Storage Requirements

Keep container tightly closed. Store in corrosion-proof area.

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

Domestic (D.O.T.)

Proper Shipping Name: Phosphoric acid  
 Hazard Class: 8 (Corrosive material)  
 UN/NA: UN1805 Reportable Quantity: 5000 LBS. Packaging Group: III  
 Labels: CORROSIVE  
 Regulatory References: 49CFR 172.101

International (I.M.O.)

Proper Shipping Name: Phosphoric acid  
 Hazard Class: 8 I.M.O. Page: 8204  
 UN: UN1805 Marine Pollutants: No Packaging Group: III  
 Labels: CORROSIVE  
 Regulatory References: 49CFR 172.12(b); IMDG Code

AIR (I.C.A.O.)

Proper Shipping Name: Phosphoric acid  
 Hazard Class: 8 Packaging Group: III  
 UN: UN1805  
 Labels: CORROSIVE  
 Regulatory References: 49CFR 172.101; ICAO== We believe the transportation data and references contained herein to be factual and the opinion of qualified experts. The data is meant as a guide to the overall classification of the product and is not package size specific, nor should it be taken as a warranty or representation for which the company assumes legal responsibility.== The information is offered solely for your consideration,

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 SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION (CONTINUED)  
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investigation, and verification. Any use of the information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations. See shipper requirements 49CFR 172.3 and employee training 49CFR 173.1.

U.S. Customs Harmonization Number: 28092000309

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 N/A = Not Applicable or Not Available  
 N/E = Not Established  
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The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes.

Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, Baker cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Baker warrants that the chemical meets the specifications set forth on the label. BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Baker will periodically revise this Material Safety Data Sheet.

Note: CHEMTREC, CANUTEC, and NATIONAL RESPONSE CENTER emergency telephone numbers are to be used ONLY 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-JTBAKER) for assistance.

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