

Material Safety Data Sheet

Product Trade Name: **ULTRAPHOS 1000**

ID: H068

*** Section 1 - Chemical Product and Company Identification ***

Product Trade Name: **ULTRAPHOS 1000**

Manufacturer Information

Heatbath Corporation

P.O. Box 51048

Indian Orchard, MA 01151-5048

Contact Phone: (413) 452-2000

8:00 AM – 5:00 PM

CHEMTREC Emergency Phone: (800) 424-9300

24 Hours

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
18718-07-5	Manganese dihydrogen phosphate	30-60
7697-37-2	Nitric acid	1-10
13138-45-9	Nickel nitrate	<1

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Manganese compounds, n.o.s., Nickel compounds, Nickel (7440-02-0).

Additional Information:

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

*** Section 3 - Hazards Identification ***

Emergency Overview:

DANGER -- CORROSIVE! Contact with this material will cause burns to the skin, eyes and mucous membranes. This product may cause methemoglobinemia if swallowed.

Eye Contact:

This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.

Skin Contact:

Contact with liquid may produce severe skin irritation including redness, inflammation and chemical burns. This product may discolor the skin. This product contains a component that may cause allergic skin reactions.

Skin Absorption:

None expected.

Ingestion:

This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. This product may cause methemoglobinemia characterized by a reduction in oxygen carrying capacity of the blood with symptoms including headache, dizziness, flushed face, fatigue, nausea, vomiting, drowsiness, stupor, tremors, uneven heart action, coma and rarely death.

Inhalation:

Inhalation of mists of this product may cause severe irritation and burns to the respiratory tract. Repeated exposure may lead to respiratory sensitization reactions, producing an asthma-like condition.

Medical Conditions Aggravated by Exposure:

Pre-existing eye, skin and respiratory disorders. Preexisting cardiovascular or bone marrow diseases.

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*** Section 4 - First Aid Measures ***

Eye Contact:

In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

Skin Contact:

Immediately take off all contaminated clothing. For skin contact, flush with large amounts of water. Seek immediate medical attention.

Ingestion:

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Inhalation:

If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

First Aid: Notes to Physician

If cyanosis is severe, intravenous injection of methylene blue, 1 mg/kg body weight, may be of value.

*** Section 5 - Fire Fighting Measures ***

Flash Point: >212 °F (>100 °C)

Method Used: Calculated

Flammability Classification: Non-flammable

Upper Flammable Limit (UFL): Not applicable

Lower Flammable Limit (LFL): Not applicable

Fire & Explosion Hazards:

This product is an aqueous mixture which will not burn. This product contains a component which is an oxidizing agent.

Decomposition Products:

Irritating and toxic gases or fumes may be released during a fire.

Extinguishing Media:

Use any media suitable for the surrounding fires.

Fire-Fighting Instructions:

Firefighters should wear full protective clothing including self contained breathing apparatus.

*** Section 6 - Accidental Release Measures ***

Containment and Clean up procedures must be conducted in accordance with all local, state, and federal regulations.

Containment Procedures:

Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up.

Clean-Up Procedures:

Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of collected material according to regulation.

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*** Section 7 - Handling and Storage ***

Handling Procedures:

Do not get this material in your eyes, on your skin, or on your clothing. Use this product with adequate ventilation. Do not take internally. Wash thoroughly after handling. Do not inhale vapors or mists of this product. For industrial use only.

Storage Procedures:

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Manufacturer recommends storing above 40 °F. Thaw and mix thoroughly if frozen.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines:

A: General Product Information

Follow all applicable exposure limits.

B: Component Exposure Limits

Manganese dihydrogen phosphate (18718-07-5)

ACGIH: as Mn; 0.2 mg/m³ TWA (related to Manganese compounds, n.o.s.)

Nitric acid (7697-37-2)

ACGIH: 2 ppm TWA; 5.2 mg/m³ TWA

4 ppm STEL; 10 mg/m³ STEL

OSHA: 2 ppm TWA; 5 mg/m³ TWA

4 ppm STEL; 10 mg/m³ STEL

NIOSH: 2 ppm TWA; 5 mg/m³ TWA

4 ppm STEL; 10 mg/m³ STEL

Nickel nitrate (13138-45-9)

ACGIH: metal, inhalable fraction: 1.5 mg/m³ TWA (related to Nickel)

OSHA: 1 mg/m³ TWA (related to Nickel)

NIOSH: as Ni: 0.015 mg/m³ TWA; NIOSH Potential Occupational Carcinogen - see Appendix A (related to Nickel)

Engineering Controls:

Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face Protective Equipment:

Wear chemical goggles; face shield (if splashing is possible).

Skin Protection:

Use impervious gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

Respiratory Protection:

If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

Personal Protective Equipment:

Eyewash fountains and emergency showers are required.

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*** Section 9 - Physical & Chemical Properties ***

Physical State: Liquid	Appearance: Gray-green
Odor: Sharp acid	Vapor Pressure: Not determined
Vapor Density: Not determined	Boiling Point: >212 °F (>100 °C)
Specific Gravity: 1.345 @ 75 °F (24 °C)	pH: <2
Viscosity: Not determined	VOC: Not determined
Solubility Water: Complete	Evaporation Rate: Not determined
Percent Volatile: Not determined	Percent Solids: Not determined

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

None expected.

Incompatibility:

This product may react with strong alkalis.

Decomposition Products:

Decomposes with heat to produce oxides of nitrogen.

Hazardous Polymerization:

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity:

A: General Product Information

No information available for the product.

B: Component Analysis - LD50/LC50

Nitric acid (7697-37-2)

Inhalation LC50 Rat : 67 ppm(NO2)/4H

Carcinogenicity:

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

Nickel nitrate (13138-45-9)

ACGIH: A5 - Not Suspected as a Human Carcinogen (related to Nickel)

NIOSH: occupational carcinogen (related to Nickel)

NTP: Suspect Carcinogen; (under Nickel and Certain Nickel Compounds) (related to Nickel) (Possible Select Carcinogen)

IARC: Monograph 49; 1990 (Evaluated as a group) (related to Nickel compounds) (Group 1 (carcinogenic to humans))

Chronic Toxicity

Systemic effects from ingestion of nickel salts include capillary damage, kidney damage, myocardial weakness and central nervous system depression. Allergic skin sensitization reactions are the most frequent effect of exposure to nickel compounds. Contact with nickel compounds may also result in allergic lung sensitization reactions.

Other Toxicological Information:

None available.

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*** Section 12 - Ecological Information ***

Ecotoxicity:

A: General Product Information

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate:

No data available for this product.

*** Section 13 - Disposal Considerations ***

Wastes must be tested using methods described in 40 CFR Part 261. It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous wastes. State and local regulations may differ from Federal disposal regulations. Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.

*** Section 14 - Transportation Information ***

US DOT Information

Proper Shipping Name	Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Nitric Acid, Phosphoric Acid)
Hazard Class	8
UN / NA Number	UN3264
Packing Group	II
Product RQ (lb)	--

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

No additional information available.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Manganese dihydrogen phosphate (18718-07-5)

SARA 313: form R reporting required for 1.0% de minimis concentration (related to Manganese compounds, n.o.s.)
CERCLA: Statutory RQ = 1 pound (.454 kg); no final RQ is being assigned to the generic or broad class (related to Manganese compounds, n.o.s.)

Nitric acid (7697-37-2)

SARA 302: TPQ = 1000 pounds; RQ = 1000 pounds
SARA 313: form R reporting required for 1.0% de minimis concentration
CERCLA: final RQ = 1000 pounds (454 kg)

Nickel nitrate (13138-45-9)

SARA 313: form R reporting required for 0.1% de minimis concentration (related to Nickel compounds)
CERCLA: CERCLA statutory RQ is 1 pound (0.454 kg); no RQ is being assigned to the generic or broad class (related to Nickel compounds)

SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No Reactive: No

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State Regulations

A: General Product Information

No additional information available.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Manganese dihydrogen phosphate (¹ related to Manganese compounds, n.o.s.)	18718-07-5	Yes ¹	No	No	Yes ¹	No	No
Nitric acid	7697-37-2	Yes	Yes	Yes	Yes	Yes	Yes
Nickel nitrate (¹ related to Nickel compounds) (² related to Nickel)	13138-45-9	Yes ¹	Yes	Yes	Yes ²	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Other Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Manganese dihydrogen phosphate	18718-07-5	Yes	Yes	Yes
Nitric acid	7697-37-2	Yes	Yes	Yes
Nickel nitrate	13138-45-9	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Manganese dihydrogen phosphate	18718-07-5	1% item 972 (1075) (related to Manganese compounds, n.o.s.)
Nitric acid	7697-37-2	1% item 1146 (111)
Nickel nitrate	13138-45-9	0.1% item 1132 (1208)

* * * Section 16 - Other Information * * *

NFPA Ratings: Health: 3 Fire: 0 Reactivity: 0 Other:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HMIS Ratings: Health: 3* Fire: 0 Reactivity: 0 Pers. Prot.:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

MSDS Change History:

7/02/03: Rev.03; MSDS as issued by Chemtech Finishing Systems.

1/18/05: Chemtech Finishing Systems acquired by Heatbath Corporation.

3/30/05: Rev.04; Chemtech MSDS issued under new manufacturer: Heatbath Corporation.

Sec.1 - Manufacturer Information Updated

Sec.16 - MSDS Change History section added

Sec.16 - Contact Information Updated

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Key/Legend:

ACGIH = American Conference of Governmental Industrial Hygienists	NFPA = National Fire Protection Association
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act	NIOSH = National Institute for Occupational Safety and Health
EPA = Environmental Protection Agency	NTP = National Toxicology Program
HMIS = Hazardous Material Identification System	OSHA = Occupational Safety and Health Administration
IARC = International Agency for Research on Cancer	SARA = Superfund Amendments and Reauthorization Act
MSHA = Mine Safety and Health Administration	TSCA = Toxic Substance Control Act

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Heatbath Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

Contact: Jeff Szotek
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This is the end of MSDS for ULTRAPHOS 1000.