

Material Safety Data Sheet



Revision Number: 004.3

Issue date: 09/26/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	BONDERITE M-ZN 1421-A MU ZINC PHOSPHATE known as BONDERITE 1421-A MAKEUP	IDH number:	1057823
Product type:	Conversion coating	Region:	United States
Company address:	Contact information:		
Henkel Corporation	Telephone: 248.583.9300		
32100 Stephenson Highway	MEDICAL EMERGENCY Phone: Poison Control Center		
Madison Heights, MI 48071	1-877-671-4608 (toll free) or 1-303-592-1711		
	TRANSPORT EMERGENCY Phone: CHEMTREC		
	1-800-424-9300 (toll free) or 1-703-527-3887		
	Internet: www.henkelna.com		

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state:	Liquid	HMIS:	
Color:	Green	HEALTH:	*3
Odor:	Mild	FLAMMABILITY:	0
		PHYSICAL HAZARD:	1
		Personal Protection:	See MSDS Section 8

DANGER—CORROSIVE!: CAUSES EYE, SKIN AND RESPIRATORY TRACT BURNS.
MAY CAUSE ALLERGIC SKIN REACTION.
CONTAINS MATERIAL WHICH MAY CAUSE CANCER.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation:	Mists, vapors or liquid may cause severe irritation or burns.
Skin contact:	Contact with liquid may produce severe skin irritation including redness, inflammation and chemical burns. Product contains a nickel compound, which may cause an allergic skin sensitization reaction. Following skin exposure to this product, the sensation of irritation or pain may be delayed.
Eye contact:	This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.
Ingestion:	This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Ingestion of corrosive acids may result in moderately severe burns to mouth and esophagus with more severe burns and damage to the stomach.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

IDH number: 1057823

Product name: BONDERITE M-ZN 1421-A MU ZINC PHOSPHATE known as BONDERITE 1421-A MAKEUP

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Phosphoric acid	7664-38-2	10 - 30
Nickel nitrate	13138-45-9	10 - 30
Zinc nitrate	7779-88-6	1 - 5
Nickel compound	10381-36-9	0.1 - 1
Hydrogen fluoride	7664-39-3	0.1 - 1

4. FIRST AID MEASURES

Inhalation:	If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.
Skin contact:	Remove contaminated clothing and footwear. Rinse with large amounts of running water. GET MEDICAL ATTENTION IMMEDIATELY! If iced 0.13% benzalkonium chloride (Zephiran) solution or 2.5% calcium gluconate gel are available, the rinsing may be limited to 5 minutes, with the soaks or gel applied as soon as the rinsing is stopped. If benzalkonium chloride or calcium gluconate gel is not available, rinsing must continue until medical treatment is provided.
Eye contact:	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
Ingestion:	Get immediate medical attention. DO NOT induce vomiting unless directed to do so by medical personnel. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Notes to physician:	Treatment of hypocalcemia associated with corrosive fluoride compounds exposure may be corrected by intravenous calcium gluconate or calcium chloride. Treatment of hypomagnesemia may be corrected by intravenous magnesium sulfate.

5. FIRE FIGHTING MEASURES

Flash point:	Not applicable
Autoignition temperature:	Not applicable
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Extinguishing media:	Use media appropriate for surrounding material.
Special firefighting procedures:	Wear full protective clothing. Wear self-contained breathing apparatus.
Unusual fire or explosion hazards:	This product is an aqueous mixture which will not burn.
Hazardous combustion products:	Irritating and toxic gases or fumes may be released during a fire.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Do not allow product to enter sewer or waterways.
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Clean-up methods:

Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

7. HANDLING AND STORAGE**Handling:**

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Do not take internally. Wash thoroughly after handling. For industrial use only. Use caution when combining with water; DO NOT add water to acid, ALWAYS add acid to water while stirring to prevent release of heat, steam and fumes.

Storage:

For safe storage, store at or above 40 °F (4.4 °C)
Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Thaw and mix thoroughly if frozen.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Phosphoric acid	1 mg/m3 TWA 3 mg/m3 STEL	1 mg/m3 PEL	None	None
Nickel nitrate	0.2 mg/m3 TWA (as Ni) Inhalable fraction. 0.1 mg/m3 TWA (as Ni) Inhalable fraction.	1 mg/m3 PEL (as Ni) 1 mg/m3 PEL (as Ni)	None	None
Zinc nitrate	None	None	None	None
Nickel compound	0.2 mg/m3 TWA (as Ni) Inhalable fraction. 0.1 mg/m3 TWA (as Ni) Inhalable fraction.	1 mg/m3 PEL (as Ni) 1 mg/m3 PEL (as Ni)	None	None
Hydrogen fluoride	2 ppm Ceiling (as F) 0.5 ppm TWA (as F) (SKIN) (as F)	2.5 mg/m3 PEL (as F) 3 ppm TWA	None	None

Engineering controls:

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

Respiratory protection:

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

Eye/face protection:

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

Skin protection:

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

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical state:**

Liquid

Color:

Green

Odor:

Mild

Odor threshold:

Not available.

pH:

< 2

Vapor pressure:	Not determined
Boiling point/range:	> 100 °C (> 212°F)
Melting point/ range:	Not determined
Specific gravity:	1.35 - 1.37 at 60 °F (15.56 °C)
Vapor density:	Not determined
Flash point:	Not applicable
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Autoignition temperature:	Not applicable
Evaporation rate:	Not determined
Solubility in water:	Complete
Partition coefficient (n-octanol/water):	Not determined
VOC content:	Not applicable

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Decomposes with heat to produce oxides of nitrogen. May liberate hydrogen fluoride.
Incompatible materials:	This product may react with strong alkalis.
Conditions to avoid:	Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Phosphoric acid	No	No	No
Nickel nitrate	Known To Be Human Carcinogen.	Group 1	No
Zinc nitrate	No	No	No
Nickel compound	Known To Be Human Carcinogen.	Group 1	No
Hydrogen fluoride	No	No	No

Hazardous components	Health Effects/Target Organs
Phosphoric acid	Irritant, Corrosive
Nickel nitrate	Allergen, Blood, Cardiac, Central nervous system, Corrosive, Developmental, Immune system, Irritant, Kidney, Liver, Lung, Mutagen, Reproductive, Respiratory, Sensory, Some evidence of carcinogenicity, Vascular
Zinc nitrate	Blood, Cardiac, Central nervous system, Corrosive, Endocrine, Gastrointestinal tract, Immune system, Irritant, Kidney, Metabolic, Pancreas, Respiratory, Vascular
Nickel compound	Allergen, Blood, Central nervous system, Corrosive, Developmental, Immune system, Irritant, Kidney, Liver, Lung, Mutagen, Reproductive, Respiratory, Sensory, Some evidence of carcinogenicity
Hydrogen fluoride	Allergen, Blood, Bone Marrow, Cardiac, Central nervous system, Corrosive, Irritant, Kidney, Liver, Lung, Muscle, Nervous System, Respiratory, Teeth

12. ECOLOGICAL INFORMATION

Ecological information:	Not available.
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13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations. This chemical contains phosphates. This chemical contains heavy metals.

Hazardous waste number: This product, if discarded directly, would be a characteristic RCRA corrosive waste (D002). This product contains a component or components identified as hazardous under 40 CFR 261.24. U134: Hydrogen fluoride

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid)
Hazard class or division: 8
Identification number: UN 3264
Packing group: II
DOT Reportable quantity: Nickel nitrate, Phosphoric acid

International Air Transportation (ICAO/IATA)

Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid)
Hazard class or division: 8
Identification number: UN 3264
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid, Nitric acid)
Hazard class or division: 8
Identification number: UN 3264
Packing group: II

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12(b) Export Notification: None above reporting de minimus

CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health, Reactive
CERCLA/SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Nickel nitrate (CAS# 13138-45-9). Nickel compound (CAS# 10381-36-9). Zinc nitrate (CAS# 7779-88-6).
CERCLA Reportable quantity: Nickel nitrate (CAS# 13138-45-9) 100 lbs. (45.4 kg)
Phosphoric acid (CAS# 7664-38-2) 5,000 lbs. (2,270 kg)
Zinc nitrate (CAS# 7779-88-6) 1,000 lbs. (454 kg)
Hydrogen fluoride (CAS# 7664-39-3) 100 lbs. (45.4 kg)

California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

WHMIS hazard class: D.2.A, D.2.B, E

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: Updated Contact Information in Section 1.

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