Revision Number: 006.2 **Issue date:** 02/28/2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **BONDERITE M-MN LUBRITE 2 MANGANESE PHOSPHATE known as PARCO LUBRITE 2**
IDH number: 1029786
Product type: Coating
Region: United States

Company address:
Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071

Contact information:
Telephone: 248.583.9300
MEDICAL EMERGENCY Phone: Poison Control Center
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

HMIS:

Physical state: Liquid
Color: Green
Odor: Bland

HEALTH: *3
FLAMMABILITY: 0
PHYSICAL HAZARD: 0
Personal Protection: See MSDS Section 8

DANGER–CORROSIVE!: CAUSES EYE, SKIN AND RESPIRATORY TRACT BURNS. POSSIBLE CANCER HAZARD.

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.
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.

Existing conditions aggravated by exposure: Eye, skin and respiratory disorders. Preexisting cardiovascular or bone marrow diseases.

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

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Manganese dihydrogen phosphate	18718-07-5	10 - 30
Phosphoric acid	7664-38-2	5 - 10
Manganese nitrate	10377-66-9	1 - 5
Nickel nitrate	13138-45-9	0.1 - 1
Iron sulphate	7720-78-7	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. For skin contact, flush with large amounts of water. Seek immediate medical attention.

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. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.

5. FIRE FIGHTING MEASURES

Flash point: 160 °C (320°F)

Autoignition temperature: Not available.

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.

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. Do not take internally. Wash thoroughly after handling. Avoid breathing mists or aerosols of this product. For industrial use only. Do not mix this product with material which contain AMINES. NITROSAMINE may be formed.

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
Manganese dihydrogen phosphate	0.2 mg/m3 TWA (as Mn)	5 mg/m3 Ceiling (as Mn)	None	None
Phosphoric acid	1 mg/m3 TWA 3 mg/m3 STEL	1 mg/m3 TWA	None	None
Manganese nitrate	0.2 mg/m3 TWA (as Mn)	5 mg/m3 Ceiling (as Mn)	None	None
Nickel nitrate	0.1 mg/m3 TWA (as Ni) Inhalable fraction.	1 mg/m3 TWA (as Ni)	None	None
Iron sulphate	1 mg/m3 TWA (as Fe)	None	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. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1901.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit-testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage, must be implemented. If concentrations are below the TLV and/or PEL, a NIOSH approved disposable dust/mist respirator may be used for personal comfort. For concentrations above the TLV and/or PEL but less than 10 times these limits, a NIOSH approved half-face piece respirator equipped with dust-mist cartridges may be used. For concentrations greater than 10 times the TLV and/or PEL, consult the NIOSH respirator decision logic found in Publication No.87-116 or ANSI Z88.2-1992. Note: ANSI Z88.2-1992 requires the use of a HEPA filter if the particle size distribution of the contaminant is unknown. WARNING! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

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. Suitable glove materials may include: Neoprene gloves. Nitrile gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Green
Odor: Bland
Odor threshold: Not available.
pH: < 1.0
Vapor pressure: Not determined
Boiling point/range: > 210 °F (> 98.9 °C) calculated
Melting point/ range: Not determined
Specific gravity: 1.29 - 1.37 at 15.6 °C (60.08 °F)
Vapor density: Not determined
Flash point: 160 °C (320°F)
Flammable/Explosive limits - lower: Not applicable
Flammable/Explosive limits - upper: Not applicable
Autoignition temperature: Not available.
Evaporation rate: Not applicable
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: Will not occur.

Hazardous decomposition products: Decomposes with heat to produce oxides of nitrogen.

Incompatible materials: This product may react with strong alkalies.

Conditions to avoid: None expected.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Manganese dihydrogen phosphate	No	No	No
Phosphoric acid	No	No	No
Manganese nitrate	No	No	No
Nickel nitrate	Known To Be Human Carcinogen.	Group 1	No
Iron sulphate	No	No	No

Hazardous components	Health Effects/Target Organs
Manganese dihydrogen phosphate	Behavioral, Blood, Developmental, Irritant, Kidney, Lung, Mutagen, Nervous System, Reproductive, Respiratory
Phosphoric acid	Irritant, Corrosive
Manganese nitrate	Behavioral, Blood, Cardiac, Developmental, Irritant, Kidney, Liver, Lung, Mutagen, Nervous System, Reproductive, Respiratory, Vascular
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
Iron sulphate	Cardiac, Central nervous system, Corrosive, Gastrointestinal, Irritant, Kidney, Liver, Lung, Metabolic, Mutagen, Vascular

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: This product, if discarded, may be characterized as a RCRA corrosive waste, D002.

14. TRANSPORT INFORMATION

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

Proper shipping name: Phosphoric acid solution
Hazard class or division: 8
Identification number: UN 1805
Packing group: III
DOT Reportable quantity: Nickel nitrate

International Air Transportation (ICAO/IATA)

Proper shipping name: Phosphoric acid, solution
Hazard class or division: 8
Identification number: UN 1805
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name:	PHOSPHORIC ACID SOLUTION
Hazard class or division:	8
Identification number:	UN 1805
Packing group:	III

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 minimus
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
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). Manganese dihydrogen phosphate (CAS# 18718-07-5). Manganese nitrate (CAS# 10377-66-9). Nickel nitrate (CAS# 13138-45-9).
CERCLA Reportable quantity:	Nickel nitrate (CAS# 13138-45-9) 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/NDSL 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: New information added in Section(s): 1, 6, 7 and 13.

Prepared by: John DiCerbo, Sr. Regulatory Affairs Specialist

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