Revision Number: 007.2

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **BONDERITE M-MN LUBRITE 2 MANGANESE PHOSPHATE known as PARCO LUBRITE 2**

IDH number: 771807

Product type/use: Phosphating Products for Metals

Item number: 771807

Restriction of Use: None identified

Region: United States

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

Contact information:
Telephone: +1 (860) 571-5100
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	
DANGER:	MAY BE CORROSIVE TO METALS. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. MAY CAUSE AN ALLERGIC SKIN REACTION. MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED. MAY CAUSE CANCER. MAY DAMAGE FERTILITY OR THE UNBORN CHILD. CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
CORROSIVE TO METALS	1
SKIN CORROSION	1
SERIOUS EYE DAMAGE	1
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
CARCINOGENICITY	1A
REPRODUCTIVE TOXICITY	1B
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1

PICTOGRAM(S)

Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep only in original packaging. Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection. In case of inadequate ventilation wear respiratory protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage: Store locked up. Store in corrosive resistant container with a resistant inner liner.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Water	7732-18-5	60 - 100
Phosphoric acid	7664-38-2	5 - 10
Manganese dihydrogen phosphate	18718-07-5	10 - 30
Manganese nitrate	10377-66-9	1 - 5
Nickel nitrate	13138-45-9	0.1 - 1
Iron sulphate	7720-78-7	0.1 - 1
Cobalt dinitrate	10141-05-6	0 - 0.1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

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.

Symptoms: See Section 11.

Notes to physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

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 Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Water	None	None	None	None
Phosphoric acid	3 mg/m3 STEL 1 mg/m3 TWA	1 mg/m3 PEL	None	None
Manganese dihydrogen phosphate	0.02 mg/m3 TWA (as Mn) Respirable fraction. 0.1 mg/m3 TWA (as Mn) Inhalable fraction.	5 mg/m3 Ceiling (as Mn)	None	None
Manganese nitrate	0.02 mg/m3 TWA (as Mn) Respirable fraction. 0.1 mg/m3 TWA (as Mn) Inhalable fraction.	5 mg/m3 Ceiling (as Mn)	None	None
Nickel nitrate	0.1 mg/m3 TWA (as Ni) Inhalable fraction.	1 mg/m3 PEL (as Ni)	None	None
Iron sulphate	1 mg/m3 TWA (as Fe)	None	None	None
Cobalt dinitrate	0.02 mg/m3 TWA (as Co)	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.

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) HST-US 027F
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not applicable
Solubility in water:	Complete
Partition coefficient (n-octanol/water):	Not determined
VOC content:	Not applicable
Viscosity:	Not available.
Decomposition temperature:	Not available.

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.
Reactivity:	Not available.
Conditions to avoid:	None expected.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

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.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Water	None	No Target Organs
Phosphoric acid	Oral LD50 (Rat) = 1,530 mg/kg Dermal LD50 (Rabbit) = 2,740 mg/kg	Irritant, Corrosive
Manganese dihydrogen phosphate	None	Behavioral, Blood, Developmental, Irritant, Kidney, Lung, Mutagen, Nervous System, Reproductive, Respiratory
Manganese nitrate	None	Behavioral, Blood, Cardiac, Developmental, Irritant, Kidney, Liver, Lung, Mutagen, Nervous System, Reproductive, Respiratory, Vascular
Nickel nitrate	None	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	Oral LD50 (Mouse) = 1,520 mg/kg Oral LD50 (Rat) = 319 mg/kg Dermal LD50 (Rat) = 155 mg/kg Dermal LD50 (Mouse) = 60.3 mg/kg	Cardiac, Central nervous system, Corrosive, Gastrointestinal, Irritant, Kidney, Liver, Lung, Metabolic, Mutagen, Vascular
Cobalt dinitrate	Oral LD50 (Rat) = 434 mg/kg Oral LD50 (Rat) = 691 mg/kg	Allergen, Blood, Bone Marrow, Cardiac, Developmental, Endocrine, Eyes, Heart, Irritant, Kidney, Liver, Lung, Metabolic, Mutagen, Nervous System, Reproductive, Respiratory, Some evidence of carcinogenicity, Vascular, Less weight gain and food intake.

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Water	No	No	No
Phosphoric acid	No	No	No
Manganese dihydrogen phosphate	No	No	No
Manganese nitrate	No	No	No
Nickel nitrate	Known To Be Human Carcinogen.	Group 1	No
Iron sulphate	No	No	No
Cobalt dinitrate	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	No

12. ECOLOGICAL INFORMATION

Ecological information: Do not empty into drains / surface water / ground water.

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. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

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 Hazardous Substance(s): 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 minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis.
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 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.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Product Safety and Regulatory Affairs

Issue date: 04/30/2019

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