



Revision Number: 004.1

Issue date: 06/01/2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BONDERITE M-AD 180
 PRETREATMENT ADDITIVE known as
 ADDITIVE 180

Product type: Additive

Restriction of Use: None identified

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

IDH number: 595157

Region: United States

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: CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
 MAY CAUSE RESPIRATORY IRRITATION.
 MAY CAUSE DROWSINESS OR DIZZINESS.

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1C
SERIOUS EYE DAMAGE	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3

PICTOGRAM(S)



Precautionary Statements

Prevention: Do not breathe vapors, mist, or spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, eye protection, and face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison control center or physician. Wash contaminated clothing before reuse.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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*
Zinc nitrate	7779-88-6	30 - 60

* 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. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Symptoms:	See Section 11.
Notes to physician:	If cyanosis is severe, intravenous injection of methylene blue, 1 mg/kg body weight, may be of value.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Use water only. Do not use dry chemicals, carbon dioxide, or foam.
Special firefighting procedures:	Wear full protective clothing. Wear self-contained breathing apparatus.
Unusual fire or explosion hazards:	This product is an oxidizing agent and is a serious fire and explosion risk. Do not permit contact with combustible, organic, or other oxidizable materials.
Hazardous combustion products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.

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 vapors or mists of this product. Provide adequate ventilation. 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. Store away from alkaline materials.

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
Zinc nitrate	None	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.

Eye/face protection: Wear chemical goggles; face shield (if splashing is possible).

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Colorless
Odor:	Acidic
Odor threshold:	Not available.
pH:	< 2
Vapor pressure:	Not determined
Boiling point/range:	> 210 °F (> 98.9 °C)
Melting point/ range:	Not determined
Specific gravity:	1.44 - 1.46
Vapor density:	Not determined
Flash point:	Not applicable
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Autoignition temperature:	Not applicable
Flammability:	Not applicable
Evaporation rate:	Not available.
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:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.
Incompatible materials:	This product may react with strong alkalis. May react with organic amines to form carcinogenic nitrosamines.
Reactivity:	Not available.
Conditions to avoid:	Keep away from heat, ignition sources and incompatible materials.

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:	This product is severely irritating to the skin. Prolonged or repeated skin contact may result in redness, burning sensation or dermatitis.
Eye contact:	Contact can cause moderate to severe irritation and possible injury to the eyes.
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.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Zinc nitrate	Oral LD50 (Rat) = 1,400 mg/kg Oral LD50 (Mouse) = 241.3 mg/kg Oral LD50 (Rat) = 1,558.7 mg/kg	Blood, Cardiac, Central nervous system, Corrosive, Endocrine, Gastrointestinal tract, Immune system, Irritant, Kidney, Metabolic, Pancreas, Respiratory, Vascular

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Zinc nitrate	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Harmful to aquatic organisms.

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 directly, would be a characteristic 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:	RQ, Environmentally hazardous substance, liquid, n.o.s.
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
DOT Hazardous Substance(s):	Zinc nitrate

International Air Transportation (ICAO/IATA)

Proper shipping name:	RQ, Environmentally hazardous substance, liquid, n.o.s. (Zinc nitrate)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III

Water Transportation (IMO/IMDG)

Proper shipping name:	RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc nitrate)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	Zinc nitrate
Additional information:	IMDG-Code: Segregation group 1- Acids, Segregation group 7 - Heavy metals and their salts

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
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). Zinc nitrate (CAS# 7779-88-6).
CERCLA Reportable quantity:	Zinc nitrate (CAS# 7779-88-6) 1,000 lbs. (454 kg)
California Proposition 65:	No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

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

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

Prepared by: Regulatory Affairs

Issue date: 06/01/2018

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