



Revision Number: 002.2

Issue date: 05/26/2021

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	BONDERITE M-NT 601	IDH number:	1928460
Product type/use:	Product for the conversion treatment of metals	Item number:	1928460
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:	CONTAINS FLUORIDES. MAY CAUSE DELAYED BURNS (NOT IMMEDIATELY PAINFUL OR VISIBLE)! LONG TERM EXPOSURE TO FLUORIDES OVER YEARS MAY CAUSE FLUOROSIS! CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1C - Corrosive
SERIOUS EYE DAMAGE	1



Precautionary Statements

Prevention:	Wash affected area thoroughly after handling. Wear protective gloves, clothing, eye 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 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. Wash contaminated clothing before reuse.
Storage:	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*
Ammonium nitrate	6484-52-2	1.0 - 5.0

Nitric acid	7697-37-2	1.0 - 5.0
Polyoxyethylene-(2,6,8-trimethyl-4-nonyl)-ether	60828-78-6	1.0 - 5.0
Hexafluorozirconic acid	12021-95-3	0.1 - 1.0

* 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. If breathing is difficult, give oxygen.
Skin contact:	Remove contaminated clothing and shoes. Immediately wash skin thoroughly with soap and water. Get immediate medical attention.
Eye contact:	Immediately flush affected eye with large amounts of gently flowing water or 0.9% sterile saline solution for at least 15 minutes. Hold eyelid wide open. Get immediate medical attention. Eye flushing should continue during transportation to a doctor.
Ingestion:	Get medical attention. DO NOT induce vomiting unless directed to do so by medical personnel. Attempt immediate administration of a fluoride binding substance: milk, chewable calcium carbonate tablets or 4-8 ounces (120-240 ml) of milk of magnesia or a liquid antacid. Avoid large amounts of liquid as it may induce vomiting. Never give anything by mouth to an unconscious person.
Symptoms:	See Section 11.
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

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:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Hydrogen fluoride

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 personal protective equipment.
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. Do not inhale vapors and fumes. Use only in well-ventilated areas. For industrial use only.
Storage:	For safe storage, store at or below 50 °C (122°F) Keep the container tightly closed and in a cool, well-ventilated place.

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
Ammonium nitrate	None	None	None	None
Nitric acid	2 ppm TWA 4 ppm STEL	2 ppm (5 mg/m ³) PEL	None	None
Polyoxyethylene-(2,6,8-trimethyl-4-nonyl)-ether	None	None	None	None
Hexafluorozirconic acid	5 mg/m ³ TWA (as Zr) 10 mg/m ³ STEL (as Zr) 2.5 mg/m ³ TWA (as F)	5 mg/m ³ PEL (as Zr) 2.5 mg/m ³ PEL (as F) 2.5 mg/m ³ TWA Dust.	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:	Pale yellow
Odor:	Acidic
Odor threshold:	Not available.
pH:	< 2.0
Vapor pressure:	Not determined
Boiling point/range:	> 100 °C (> 212°F) calculated
Melting point/ range:	Not determined
Specific gravity:	1.025
Vapor density:	Not determined
Flash point:	> 100 °C (> 212°F) calculated
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not applicable
Flammability:	Not applicable
Evaporation rate:	Not determined
Solubility in water:	Complete
Partition coefficient (n-octanol/water):	Not determined
VOC content:	< 0.01 %
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	May liberate hydrogen fluoride. Oxides of nitrogen.
Incompatible materials:	This product may react with strong alkalis. This material will react with glass, concrete, certain metals, silica containing materials, rubber, leather, and many organics. Reacts with cyanides and sulfides to cause the release of poisonous gases.
Reactivity:	Not available.
Conditions to avoid:	Store away from 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 and may cause burns. Liquid or vapor can cause fluoride-type irritation or burns which may not be immediately painful or visible.
Eye contact: Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause eye burns.
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
Ammonium nitrate	Oral LD50 (Rat) = 2,217 mg/kg Oral LD50 (Rat) = 4,500 mg/kg Oral LD50 (Rat) = 2,800 mg/kg Inhalation LC50 (Rat, 4 h) = > 88.8 mg/l	Irritant, Kidney
Nitric acid	Inhalation LC50 (Rat, 4 h) = > 80 mg/m3	Irritant, Corrosive, Lung, Teeth
Polyoxyethylene-(2,6,8-trimethyl-4-nonyl)-ether	None	Irritant
Hexafluorozirconic acid	None	No Records

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Ammonium nitrate	No	Group 2A	No
Nitric acid	No	Group 1	No
Polyoxyethylene-(2,6,8-trimethyl-4-nonyl)-ether	No	No	No
Hexafluorozirconic acid	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: None identified.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

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

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: Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid, Hexafluoro zirconic acid)
Hazard class or division: 8
Identification number: UN 3264
Packing group: III

International Air Transportation (ICAO/IATA)

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

Water Transportation (IMO/IMDG)

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

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) 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). Ammonium nitrate (CAS# 6484-52-2). Nitric acid (CAS# 7697-37-2).
California Proposition 65:	This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

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: This Safety Data Sheet contains changes from the previous version in Section(s): 4

Prepared by: John DiCerbo, Sr. Regulatory Affairs Specialist

Issue date: 05/26/2021

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

This Safety Data Sheet has been generated based on OSHA Hazard Communication Standard (29 CFR 1910.1200) and provides information in accordance with U.S. federal law only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.