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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	BONDERITE M-NT 5220 R NON CHROME COATING known as ALODINE 5220 REPLENISH ER	IDH number:	594425
Product type:	Conversion coating	Region:	United States
Restriction of Use:	None identified	Contact information:	
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	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! 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.
MAY CAUSE AN ALLERGIC SKIN REACTION.
CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1C
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1

PICTOGRAM(S)



Precautionary Statements

Prevention:	Do not breathe vapors, mist, or spray. Wash 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, 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 remove. Continue rinsing. Immediately call a poison control center or physician. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.

IDH number: 594425

Product name: BONDERITE M-NT 5220 R NON CHROME COATING known as ALODINE 5220 REPLENISH ER

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*
Nitric acid	7697-37-2	1 - 5
Substituted polyhydroxy aromatic compound	Unknown	0.1 - 1
1-Propoxy-2-propanol	1569-01-3	0.1 - 1
Hydrogen fluoride	7664-39-3	0.1 - 1

* Exact percentage is a 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. 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:	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.
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. 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:

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 personal protective equipment. 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. Avoid breathing mists or aerosols of this product. Wash thoroughly after handling. Do not take internally. For industrial use only.

Storage:

For safe storage, store between 40 °C (104°F) and 100 °C (212°F) Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Protect from freezing.

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
Nitric acid	2 ppm TWA 4 ppm STEL	2 ppm (5 mg/m3) PEL	None	None
Substituted polyhydroxy aromatic compound	None	None	None	None
1-Propoxy-2-propanol	None	None	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:

Ventilation should effectively remove and prevent buildup of any vapor/mist/fume/dust 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:

Safety goggles or safety glasses with side shields.

Skin protection:

Wear impervious gloves for prolonged contact. 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:

Yellow

Odor:

Mild

Odor threshold:

Not available.

pH:

< 1

Vapor pressure:

Not available.

Boiling point/range:

> 100 °C (> 212°F) calculated

Melting point/ range:

Not determined

Vapor density:	Not determined
Flash point:	Not applicable
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not applicable
Evaporation rate:	Not determined
Solubility in water:	Complete
Partition coefficient (n-octanol/water):	Not determined
VOC content:	0.8 %
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	May liberate hydrogen fluoride. Oxides of carbon. Oxides of nitrogen.
Incompatible materials:	This product may react with strong alkalies.
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
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Potential Health Effects/Symptoms

Inhalation:	Mists, vapors or liquid may cause severe irritation or burns. Contains fluorides. Exposure to fluorides over years may cause fluorosis.
Skin contact:	Corrosive to the skin. Contact with the skin or mucous membranes may cause severe irritation and burns. Liquid or vapor can cause fluoride-type irritation or burns which may not be immediately painful or visible. This product may cause an allergic skin 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
Nitric acid	Inhalation LC50 (RAT, 30 min) = 334 mg/l Inhalation LC50 (RAT, 30 min) = 244 mg/l Inhalation LC50 (RAT, 30 min) = 138 mg/l Inhalation LC50 (RAT, 4 h) = 65 mg/l	Irritant, Corrosive, Lung, Teeth
Substituted polyhydroxy aromatic compound	None	No Data
1-Propoxy-2-propanol	Oral LD50 (RAT) = 2.8 g/kg Dermal LD50 (RABBIT) = 3.55 g/kg	Central nervous system, Eyes, Irritant, Kidney
Hydrogen fluoride	Inhalation LC50 (RAT, 15 min) = 2689 ppm Inhalation LC50 (RAT, 1 h) = 1278 ppm Inhalation LC50 (RAT, 30 min) = 2042 ppm Inhalation LC50 (RAT, 5 min) = 4970 ppm	Allergen, Blood, Bone Marrow, Cardiac, Central nervous system, Corrosive, Irritant, Kidney, Liver, Lung, Muscle, Nervous System, Respiratory, Teeth

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Nitric acid	No	No	No
Substituted polyhydroxy aromatic compound	No	No	No
1-Propoxy-2-propanol	No	No	No
Hydrogen fluoride	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: No data available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: This product, if discarded directly, would be a characteristic RCRA corrosive waste (D002).

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:	Amines, liquid, corrosive, n.o.s. (Substituted polyhydroxy benzene amine)
Hazard class or division:	8
Identification number:	UN 2735
Packing group:	III

International Air Transportation (ICAO/IATA)

Proper shipping name: Amines, liquid, corrosive, n.o.s. (Substituted polyhydroxy benzene amine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Substituted polyhydroxy benzene amine)
Hazard class or division: 8
Identification number: UN 2735
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). 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/NDL Status: One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.

16. OTHER INFORMATION

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

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