



Revision Number: 005.0

Issue date: 02/21/2025

1. IDENTIFICATION

Product name: BONDERITE M-CR 1500 AERO known as ALODINE 1500(AERO DIST ONLY)
Product type/Recommended use: Coating
Restriction of Use: None identified
Company address: Henkel Corporation
 One Henkel Way
 Rocky Hill, Connecticut 06067

IDH number: 595833

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
 MEDICAL EMERGENCY Phone: Poison Control Center
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 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: H302 - HARMFUL IF SWALLOWED.
 H311+H331 - TOXIC IN CONTACT WITH SKIN OR IF INHALED.
 H314 - CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
 H317 - MAY CAUSE AN ALLERGIC SKIN REACTION.
 H334 - MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.
 H340 - MAY CAUSE GENETIC DEFECTS.
 H350 - MAY CAUSE CANCER.
 H360 - MAY DAMAGE FERTILITY OR THE UNBORN CHILD.

HAZARD CLASS	HAZARD CATEGORY
ACUTE TOXICITY ORAL	4
ACUTE TOXICITY INHALATION	3
ACUTE TOXICITY DERMAL	3
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
GERM CELL MUTAGENICITY	1B
CARCINOGENICITY	1A
REPRODUCTIVE TOXICITY	1B

PICTOGRAM(S)



Precautionary Statements

Prevention:

P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P260 - Do not breathe vapors, mist, or spray.
 P264 - Wash affected area thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.

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Response: P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves, clothing, eye and face protection.
P284 - [In case of inadequate ventilation] wear respiratory protection.
P301+P312+P330 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing.
P304+P340+P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical attention.
P333+P313 - If skin irritation or rash occurs: Get medical attention.
P342+P311 - If experiencing respiratory symptoms: Call a poison center or physician.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.

Storage:

Disposal: P501 - Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Other hazards Not available.

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	Weight %*
Chromic acid	7738-94-5	5 - 10
Ammonium hexafluorozirconate	16919-31-6	1 - 5

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

4. FIRST AID MEASURES

First Aid Measures by likely routes of exposure

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:	Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get 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 unless directed to do so by medical personnel.
Most important symptoms and effects (acute and delayed):	The most important known symptoms and effects, both acute and delayed, are described in Section 11: Toxicological Information.
Indication of any immediate medical attention / special treatment needed:	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:	Water spray (fog), foam, dry chemical or carbon dioxide.
Improper extinguishing agents:	Not available.
Special firefighting procedures:	Wear full protective clothing. Wear self-contained breathing apparatus.

Unusual fire or explosion hazards:	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.
Hazardous combustion products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Hydrogen fluoride. Chromium oxide.

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. Block any potential routes to water systems.
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:	Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Use only with adequate ventilation. Launder work clothes frequently. Clothing or other material wet with this product and allowed to dry may become flammable. Do not store or consume food, drink, or tobacco products in areas where they may become contaminated with this material. Do not take internally. For industrial use only.
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
Chromic acid	0.0002 mg/m3 TWA (as Cr(VI)) Inhalable fraction. 0.0005 mg/m3 STEL (as Cr(VI)) Inhalable fraction. (SKIN) (as Cr(VI)) Inhalable fraction. 0.0005 mg/m3 STEL (as Cr(VI)) Inhalable fraction. 0.0002 mg/m3 TWA (as Cr(VI)) Inhalable fraction. (Dermal sensitization) (Respiratory sensitization)	0.0025 mg/m3 OSHA_ACT 0.005 mg/m3 TWA 0.1 mg/m3 Ceiling	None	None
Ammonium hexafluorozirconate	5 mg/m3 TWA (as Zr) 10 mg/m3 STEL (as Zr) 2.5 mg/m3 TWA (as F)	5 mg/m3 PEL (as Zr) 2.5 mg/m3 PEL (as F) 2.5 mg/m3 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.
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Respiratory protection:	Not available.
Eye/face protection:	Not available.
Skin protection:	Not available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Orange-red
Odor:	Bland
Odor threshold:	Not available.
pH:	< 2
Vapor pressure:	Not determined
Boiling point/range:	> 212 °F (> 100°C)
Melting point/ range:	27 °F (-2.8 °C)
Density/Relative density:	1.03 - 1.06
Relative vapor density:	Not determined
Flash point:	> 100 °C (> 212°F)
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Autoignition temperature:	Not applicable
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility:	Complete Water
Partition coefficient n-octanol/water (logarithmic value):	Not determined
VOC content:	Not applicable
Dynamic viscosity:	Not available.
Kinematic viscosity:	Not available.
Particle characteristics:	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. May liberate hydrogen fluoride. Chromium oxide.
Incompatible materials:	This product may react with strong reducing agents. Avoid contact with organic materials, oils, greases, and any oxidizable materials. Strong bases. Metals.
Reactivity:	Not available.
Conditions to avoid:	Keep away from heat, ignition sources and incompatible materials.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure:	Skin, Inhalation, Eyes, Ingestion
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Potential Health Effects/Symptoms

Inhalation:	Mists, vapors or liquid may cause severe irritation or burns. Causes respiratory tract irritation. Contains fluorides. Exposure to fluorides over years may cause fluorosis. May cause allergic respiratory reaction.
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. Hydrofluoric acid will penetrate the skin and attack underlying tissue and bone. Large burns (over 25 square inches) may also cause hypocalcemia and other systemic effects which may be fatal. Mists, vapors or liquid may cause severe irritation or burns. Product contains chromium, which may cause an allergic skin sensitization reaction. Contact with broken skin may lead to formation of firmly margined "chrome sores". May cause allergic skin reaction. Toxic. Causes skin burns.
Eye contact:	This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness. Causes serious eye damage.
Ingestion:	Contains fluorides. Exposure to fluorides over years may cause fluorosis. Ingestion of small amounts of this product may result in potentially fatal hypocalcemia and systemic toxicity. Ingestion of large amounts of this product may result in fluoride poisoning including symptoms of calcification of the ligaments and severe bone changes making normal movements painful, mottling of the teeth, pulmonary fibrosis, anemia, anorexia, dental effects, and possibly death. Ingestion causes burns of the upper digestive and respiratory tracts.

Hazardous Component(s)	LD50s and LC50s
Chromic acid	None
Ammonium hexafluorozirconate	None

Hazardous Component(s)	Immediate Health Effects	Delayed Health Effects	Chronic Health Effects
Chromic acid	Corrosive Irritant	Allergen	Blood Carcinogen Central nervous system Developmental Eyes Gastrointestinal Kidney Liver Mutagen Reproductive Respiratory
Ammonium hexafluorozirconate	Corrosive Irritant	Allergen	Blood Cardiac Central nervous system Gastrointestinal tract Kidney Lung Metabolic Muscle Teeth

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Chromic acid	Known To Be Human Carcinogen.	Group 1	Yes
Ammonium hexafluorozirconate	No	No	No

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.

14. TRANSPORT INFORMATION

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

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

Proper shipping name: Chromic acid solution
Hazard class or division: 8
Identification number: UN 1755
Packing group: II
DOT Hazardous Substance(s): Chromic acid

International Air Transportation (ICAO/IATA)

Proper shipping name: Chromic acid solution
Hazard class or division: 8
Identification number: UN 1755
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: CHROMIC ACID SOLUTION (Chromic acid)
Hazard class or division: 8
Identification number: UN 1755
Packing group: II
Marine pollutant: Chromic acid

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: Chromic acid (CAS# 7738-94-5).

CERCLA/SARA Section 302 EHS: None above reporting de minimis.
CERCLA/SARA Section 311/312: Please refer to the GHS classification in Section 2
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). Chromic acid (CAS# 7738-94-5). Ammonium chromate (CAS# 7788-98-9).

CERCLA Reportable quantity: Chromic acid (CAS# 7738-94-5) 10 lbs. (4.54 kg)
Ammonium chromate (CAS# 7788-98-9) 10 lbs. (4.54 kg)

California Proposition 65: 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: New Safety Data Sheet format.

Prepared by: Product Safety and Regulatory Affairs

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