



Revision Number: 004.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** BONDERITE M-CR T 5900 AERO CHROMATE COATING known as ALODINE T 5900  
**IDH number:** 756391  
**Product type:** Conversion coating  
**Restriction of Use:** None identified  
**Region:** United States  
**Company address:** Henkel Corporation, One Henkel Way, Rocky Hill, Connecticut 06067  
**Contact information:** Telephone: (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.

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Do not breathe vapors, mist, or spray. Wash thoroughly after handling. 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. 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*
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Hexafluorozirconic acid	12021-95-3	1 - 5
Chromium compound	Proprietary	1 - 5

\* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist. If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.
<b>Skin contact:</b>	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. Discard any shoes or clothing items that cannot be decontaminated. 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.
<b>Eye contact:</b>	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention. In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
<b>Ingestion:</b>	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. Get immediate medical attention. 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.
<b>Symptoms:</b>	See Section 11.
<b>Notes to physician:</b>	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

<b>Extinguishing media:</b>	Use media appropriate for surrounding material. Use media appropriate for surrounding material.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Wear full protective clothing. Wear self-contained breathing apparatus.
<b>Unusual fire or explosion hazards:</b>	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. 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 suitable protective clothing, gloves and eye/face protection. Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up.

**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. 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. IN CASE OF CONTACT OR SUSPICION OF CONTACT, PROMPT MEDICAL ATTENTION IS ABSOLUTELY NECESSARY. Use only with adequate ventilation. Do not take internally. Wash thoroughly after handling. 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
Hexafluorozirconic acid	5 mg/m <sup>3</sup> TWA (as Zr) 10 mg/m <sup>3</sup> STEL (as Zr) 2.5 mg/m <sup>3</sup> TWA (as F)	5 mg/m <sup>3</sup> PEL (as Zr) 2.5 mg/m <sup>3</sup> PEL (as F) 2.5 mg/m <sup>3</sup> TWA Dust.	None	None
Chromium compound	None	1 mg/m <sup>3</sup> PEL (as Cr) 0.5 mg/m <sup>3</sup> PEL (as Cr)	None	None

**Engineering controls:**

Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces. 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

<b>Physical state:</b>	Liquid
<b>Color:</b>	dark green
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	1.75 - 2.25
<b>Vapor pressure:</b>	Not determined
<b>Boiling point/range:</b>	> 100 °C (> 212°F) calculated
<b>Melting point/ range:</b>	Not determined
<b>Specific gravity:</b>	1.034 - 1.094
<b>Vapor density:</b>	Not determined
<b>Flash point:</b>	Not applicable
<b>Flammable/Explosive limits - lower:</b>	Not applicable
<b>Flammable/Explosive limits - upper:</b>	Not applicable
<b>Autoignition temperature:</b>	Not applicable
<b>Evaporation rate:</b>	Not determined
<b>Solubility in water:</b>	Complete
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	Not applicable
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	May liberate hydrogen fluoride.
<b>Incompatible materials:</b>	This product may react with strong alkalis. This material will react with glass, concrete, certain metals, silica containing materials, rubber, leather, and many organics.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Keep away from alkalis.

## 11. TOXICOLOGICAL INFORMATION

<b>Relevant routes of exposure:</b>	Skin, Inhalation, Eyes
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### Potential Health Effects/Symptoms

**Inhalation:** Mists, vapors or liquid may cause severe irritation or burns. Can cause pulmonary edema; signs and symptoms can be delayed for several hours.

**Skin contact:** Corrosive to the skin. Contact with the skin or mucous membranes may cause severe irritation and burns. Following skin exposure to this product, the sensation of irritation or pain may be delayed.

**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
Hexafluorozirconic acid	None	No Records
Chromium compound	None	Allergen, Corrosive, Irritant, Respiratory

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Hexafluorozirconic acid	No	No	No
Chromium compound	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:** 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.

## 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. (Fluorozirconic acid, Chromium sulphate)  
**Hazard class or division:** 8  
**Identification number:** UN 3264  
**Packing group:** II

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Corrosive liquid, acidic, inorganic, n.o.s. (Fluorozirconic acid, Chromium sulphate)  
**Hazard class or division:** 8  
**Identification number:** UN 3264  
**Packing group:** II

### Water Transportation (IMO/IMDG)

**Proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Fluorozirconic acid, Chromium sulphate)  
**Hazard class or division:** 8  
**Identification number:** UN 3264  
**Packing group:** II

## 15. REGULATORY INFORMATION

### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
<b>TSCA 12 (b) Export Notification:</b>	None above reporting de minimis
<b>CERCLA/SARA Section 302 EHS:</b>	None above reporting de minimis
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health, Delayed Health
<b>CERCLA/SARA Section 313:</b>	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). Chromium hydroxide sulfate (CAS# 12336-95-7).
<b>California Proposition 65:</b>	No California Proposition 65 listed chemicals are known to be present.

### Canada Regulatory Information

<b>CEPA DSL/NDSL Status:</b>	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:** John DiCerbo, Sr. Regulatory Affairs Specialist

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