



Revision Number: 004.2

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** ALODINE 1500  
**Product type:** Coating  
**Company address:** Henkel Corporation  
 32100 Stephenson Highway  
 Madison Heights, MI 48071  
**IDH number:** 594237  
**Region:** United States  
**Contact information:**  
 Telephone: 248.583.9300  
 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**

<b>Physical state:</b>	Liquid	<b>HEALTH:</b>	*3
<b>Color:</b>	Orange-red	<b>FLAMMABILITY:</b>	0
<b>Odor:</b>	Bland	<b>PHYSICAL HAZARD:</b>	0
		<b>Personal Protection:</b>	See MSDS Section 8

**DANGER-CORROSIVE!:** CAUSES EYE, SKIN AND RESPIRATORY TRACT BURNS.  
 POSSIBLE CANCER HAZARD.

**Relevant routes of exposure:** Skin, Inhalation, Eyes

**Potential Health Effects**

**Inhalation:** Mists, vapors or liquid may cause severe irritation or burns. Prolonged or repeated breathing may cause ulceration of nasal membranes.

**Skin contact:** Product contains chromium, which may cause an allergic skin sensitization reaction. Contact with broken skin may lead to formation of firmly marginated "chrome sores". Massive overexposures may lead to kidney failure and death. Following skin exposure to this product, the sensation of irritation or pain may be delayed. A component in this product may be harmful or fatal if absorbed through the skin, especially if skin is damaged.

**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.

**Existing conditions aggravated by exposure:** Eye, skin and respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous components	CAS NUMBER	%
Chromic acid	7738-94-5	5 - 10
Ammonium hexafluorozirconate	16919-31-6	1 - 5

#### 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.
<b>Skin contact:</b>	Remove contaminated clothing and footwear. For skin contact, flush with large amounts of water. Seek immediate medical attention. If irritation persists, repeat flushing and get medical attention. Discard any shoes or clothing items that cannot be decontaminated.
<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.
<b>Ingestion:</b>	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.
<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>Flash point:</b>	Not applicable
<b>Autoignition temperature:</b>	Not applicable
<b>Flammable/Explosive limits - lower:</b>	Not applicable
<b>Flammable/Explosive limits - upper:</b>	Not applicable
<b>Extinguishing media:</b>	Use media appropriate for surrounding material.
<b>Special firefighting procedures:</b>	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.
<b>Hazardous combustion products:</b>	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.

<b>Environmental precautions:</b>	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.
<b>Clean-up methods:</b>	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

<b>Handling:</b>	Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not take internally. For industrial use only. Clothing or other material wet with this product and allowed to dry may become flammable.
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**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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Chromic acid	0.05 mg/m <sup>3</sup> TWA (as Cr)	0.1 mg/m <sup>3</sup> Ceiling 0.005 mg/m <sup>3</sup> TWA (SKIN) 0.0025 mg/m <sup>3</sup> OSHA ACT 29 CFR 1910.1026	None	None
Ammonium hexafluorozirconate	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> TWA (as Zr) 2.5 mg/m <sup>3</sup> TWA Dust. 2.5 mg/m <sup>3</sup> TWA (as F)	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. Use of impervious apron and boots are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Orange-red
<b>Odor:</b>	Bland
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	< 2
<b>Vapor pressure:</b>	Not determined
<b>Boiling point/range:</b>	> 212 °F (> 100°C)
<b>Melting point/ range:</b>	27 °F (-2.8 °C)
<b>Specific gravity:</b>	1.03 - 1.06
<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 available.
<b>Solubility in water:</b>	Complete
<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>VOC content:</b>	Not applicable

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Incompatible materials:</b>	Avoid contact with organic materials, oils, greases, and any oxidizable materials.
<b>Conditions to avoid:</b>	Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

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

Hazardous components	Health Effects/Target Organs
Chromic acid	Allergen, Blood, Carcinogen, Central nervous system, Corrosive, Developmental, Eyes, Gastrointestinal, Irritant, Kidney, Liver, Mutagen, Reproductive, Respiratory
Ammonium hexafluorozirconate	Allergen, Blood, Cardiac, Central nervous system, Corrosive, Gastrointestinal tract, Irritant, Kidney, Lung, Metabolic, Muscle, Teeth, Less weight gain and food intake.

## 12. ECOLOGICAL INFORMATION

<b>Ecological information:</b>	Harmful to aquatic organisms.
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## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

<b>Recommended method of disposal:</b>	Follow all local, state, federal and provincial regulations for disposal.
<b>Hazardous waste number:</b>	This product, if discarded directly, would be a characteristic RCRA corrosive waste (D002). This product contains chromium which is a hazardous waste (D007).

## 14. TRANSPORT INFORMATION

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

<b>Proper shipping name:</b>	Chromic acid solution
<b>Hazard class or division:</b>	8
<b>Identification number:</b>	UN 1755
<b>Packing group:</b>	II
<b>DOT Reportable quantity:</b>	Chromic acid

### International Air Transportation (ICAO/IATA)

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

**Water Transportation (IMO/IMDG)**

<b>Proper shipping name:</b>	CHROMIC ACID SOLUTION
<b>Hazard class or division:</b>	8
<b>Identification number:</b>	UN 1755
<b>Packing group:</b>	II
<b>Marine pollutant:</b>	Chromic acid
<b>Exceptions:</b>	Classified per IMDG Amendment 34; Effective Jan 1, 2010.

**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>	Chromic acid (CAS# 7738-94-5).
<b>CERCLA/SARA Section 302 EHS:</b>	None above reporting de minimus
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health, Delayed Health
<b>CERCLA/SARA 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). Chromic acid (CAS# 7738-94-5).
<b>CERCLA Reportable quantity:</b>	Chromic acid (CAS# 7738-94-5) 10 lbs. (4.54 kg)
<b>California Proposition 65:</b>	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**

<b>CEPA DSL/NDSL Status:</b>	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
<b>WHMIS hazard class:</b>	D.2.A, D.2.B, E

**16. OTHER INFORMATION**

**This material safety data sheet contains changes from the previous version in sections:** New information added in Section(s): 1, 12 and 14.

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