

Safety Data Sheet



Revision Number: 004.5

Issue date: 02/24/2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BONDERITE M-CR 1132 AERO
Product type/use: Chromating Products for Metals
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 1445846
Item number: 1445856
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
Internet: www.henkeln.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: MAY CAUSE AN ALLERGIC SKIN REACTION.
MAY CAUSE CANCER.

HAZARD CLASS	HAZARD CATEGORY
SKIN SENSITIZATION	1
CARCINOGENICITY	1B

PICTOGRAM(S)



Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing vapors, mist, or spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection.

Response: IF ON SKIN: Wash with plenty of water. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. 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*
Chromium III chromate	24613-89-6	0.1 - 1
Chromium phosphate	7789-04-0	0.1 - 1
Chromium(VI) oxide	1333-82-0	0.01 - 0.1

* 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. Delayed effects possible after inhalation. Administer oxygen or artificial respiration as needed. Do not use mouth-to-mouth method if victim ingested or inhaled the substance.
Skin contact:	Remove contaminated clothing and footwear. Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention. Topical 10 % EDTA ointment can be used to treat chromate scabs and skin ulcers. A 10 % ascorbic acid solution may speed healing if applied promptly. Larger exposures may need additional treatment. Launder contaminated clothing before reuse. Discard any shoes or clothing items that cannot be decontaminated.
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 immediate medical attention. Do not induce vomiting. If individual is conscious, wash out mouth with water. Provide a glass of water to dilute the material in the stomach.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Use media appropriate for surrounding material. Water spray (fog), foam, dry chemical or carbon dioxide.
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:	Irritating and toxic gases or fumes may be released during a fire. 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.
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. Wash thoroughly after handling. Avoid breathing vapors or mists of this product. Use only with adequate ventilation. Launder work clothes frequently. 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 between 40 °F (4.4 °C) and 104 °F (40°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
Chromium III chromate	0.0005 mg/m ³ STEL (as Cr(VI)) Inhalable fraction. 0.0005 mg/m ³ STEL (as Cr(VI)) Inhalable fraction. 0.0002 mg/m ³ TWA (as Cr(VI)) Inhalable fraction. (SKIN) (as Cr(VI)) Inhalable fraction. 0.003 mg/m ³ TWA (as Cr(III)) Inhalable fraction. (Dermal sensitization) (Respiratory sensitization)	0.005 mg/m ³ TWA 0.0025 mg/m ³ OSHA_ACT 0.1 mg/m ³ Ceiling 1 mg/m ³ PEL (as Cr) 0.5 mg/m ³ PEL (as Cr)	None	None
Chromium phosphate	0.003 mg/m ³ TWA (as Cr(III)) Inhalable fraction. 0.003 mg/m ³ TWA (as Cr(III)) Inhalable fraction. (Respiratory sensitization) (Dermal sensitization)	1 mg/m ³ PEL (as Cr) 0.5 mg/m ³ PEL (as Cr)	None	None
Chromium(VI) oxide	0.0005 mg/m ³ STEL (as Cr(VI)) Inhalable fraction. 0.0005 mg/m ³ STEL (as Cr(VI)) Inhalable fraction. 0.0002 mg/m ³ TWA (as Cr(VI)) Inhalable fraction. (SKIN) (as Cr(VI)) Inhalable fraction. 0.003 mg/m ³ TWA (as Cr(III)) Inhalable fraction. (Respiratory sensitization) (Dermal sensitization) (Respiratory sensitization)	0.0025 mg/m ³ OSHA_ACT 0.005 mg/m ³ TWA 0.5 mg/m ³ PEL (as Cr) 0.1 mg/m ³ Ceiling 1 mg/m ³ PEL (as Cr)	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:

Use chemical resistant, impervious gloves and clothing to prevent skin contact. Gloves should be tested to determine suitability for prolonged contact. Use of impervious boots is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Liquid

Color:

Yellow green

Odor:

Mild

Odor threshold:

Not available.

pH:

1.95 - 2.25

Vapor pressure:

1 - 10 kPa (20 °C (68°F)) Values referring to water
10 - 25 kPa (50 °C (122°F)) Values referring to water

Boiling point/range:	> 100 °C (> 212°F)Aqueous solution
Melting point/ range:	Not applicable, Product is a liquid
Specific gravity:	1.00 - 1.01 at 60 °F (15.56 °C)
Vapor density:	Not determined
Flash point:	Not applicable
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 available.
VOC content:	0 % (calculated)
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Chromium oxide.
Incompatible materials:	This product may react with strong reducing agents. Keep away from organic and combustible materials. Strong bases. Metals.
Reactivity:	Not available.
Conditions to avoid:	Do not allow chemical to dry in the presence of organic materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation:	May be harmful or fatal if inhaled. Nasal itch and soreness, perforation of the nasal septum, dental erosion, and chronic asthmatic bronchitis may result from repeated exposure.
Skin contact:	A component in this product may be harmful or fatal if absorbed through the skin, especially if skin is damaged. May cause severe skin irritation. Product contains chromium, which may cause an allergic skin sensitization reaction. Contact with broken skin may lead to formation of firmly marginated "chrome sores".
Eye contact:	This product may be severely irritating to the eyes.
Ingestion:	Harmful or fatal if swallowed. May cause burns of the mouth, throat and stomach. May also cause gastrointestinal disturbances such as nausea, vomiting, abdominal pain, and diarrhea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Chromium III chromate	Inhalation LC50 (Rat, 4 h) = 200 mg/m3 Inhalation LC50 (Rat, 4 h) = 99 mg/m3 Inhalation LC50 (Rat, 4 h) = 217 mg/m3 Inhalation LC50 (Rat, 4 h) = 104 mg/m3	Allergen, Irritant, Respiratory
Chromium phosphate	None	Allergen, Irritant, Metabolic, Respiratory
Chromium(VI) oxide	Oral LD50 (Rat) = 25 mg/kg Dermal LD50 (Rabbit) = 30 mg/kg Inhalation LC50 (Rat, 4 h) = 167 mg/m3 Inhalation LC50 (Rat, 4 h) = 217 mg/m3 Inhalation LC50 (Rat, 4 h) = 263 mg/m3	Allergen, Blood, Central nervous system, Corrosive, Carcinogen, Developmental, Eyes, Gastrointestinal, Irritant, Kidney, Liver, Mutagen, Reproductive, Respiratory

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Chromium III chromate	Known To Be Human Carcinogen.	Group 1	Yes
Chromium phosphate	No	No	No
Chromium(VI) oxide	Known To Be Human Carcinogen.	Group 1	Yes

12. ECOLOGICAL INFORMATION

Ecological information: Do not empty into drains / surface water / ground water.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations. This chemical contains phosphates. This chemical contains heavy metals.

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: RQ, Environmentally hazardous substance, liquid, n.o.s.
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
DOT Hazardous Substance(s): Chromic acid

International Air Transportation (ICAO/IATA)

Proper shipping name: RQ, Environmentally hazardous substance, liquid, n.o.s. (Chromium(III)-chromate)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chromium(III)-chromate)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
Marine pollutant: Chromium(III)-chromate

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: Chromium III chromate (CAS# 24613-89-6).
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). Chromium III chromate (CAS# 24613-89-6).
CERCLA Reportable quantity: Chromium III chromate (CAS# 24613-89-6) 10 lbs. (4.54 kg)
Chromium phosphate (CAS# 7789-04-0) 10 lbs. (4.54 kg)
Chromium(VI) oxide (CAS# 1333-82-0) 10 lbs. (4.54 kg)
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: New Safety Data Sheet format.

Prepared by: Product Safety and Regulatory Affairs

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