



Revision Number: 004.9

Issue date: 03/22/2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BONDERITE M-CR 1201 AERO known as ALODINE 1201
Product type: Conversion coating
Restriction of Use: None identified
Company address: Henkel Corporation
 Henkel Way One
 Rocky Hill, Connecticut 06067

IDH number: 594418

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.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: MAY CAUSE AN ALLERGIC SKIN REACTION.
 MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.
 MAY CAUSE GENETIC DEFECTS.
 MAY CAUSE CANCER.
 MAY DAMAGE FERTILITY OR THE UNBORN CHILD.

| HAZARD CLASS | HAZARD CATEGORY |
|---------------------------|-----------------|
| RESPIRATORY SENSITIZATION | 1 |
| SKIN SENSITIZATION | 1 |
| GERM CELL MUTAGENICITY | 1B |
| CARCINOGENICITY | 1A |
| REPRODUCTIVE TOXICITY | 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. In case of inadequate ventilation wear respiratory protection.

Response: IF ON SKIN: Wash with plenty of water. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. 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* |
|-------------------------------|------------|-------------|
| Chromic acid | 7738-94-5 | 1 - 5 |
| Tripotassium hexacyanoferrate | 13746-66-2 | 0.1 - 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. |
| Skin contact: | Remove contaminated clothing and footwear. For skin contact, flush with large amounts of water. Seek immediate 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. |
| Symptoms: | See Section 11. |
| Notes to physician: | Treat symptomatically and supportively. |

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: | Formation of toxic gases is possible during heating or in fires. |
| Hazardous combustion products: | Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. |

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. Avoid breathing vapors or mists of this product. Wash thoroughly after handling. For industrial use only. Clothing or other material wet with this product and allowed to dry may become flammable.

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.

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 | 0.05 mg/m3 TWA (as Cr) | 0.005 mg/m3 TWA 0.0025 mg/m3 OSHA_ACT 0.1 mg/m3 Ceiling | None | None |
| Tripotassium hexacyanoferrate | None | None | 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 safety glasses; chemical goggles (if splashing is possible).

Skin protection: Chemical resistant, impermeable gloves. Use of impervious apron and boots are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------------------------------|---------------------------------------|
| Physical state: | Liquid |
| Color: | Orange |
| Odor: | None |
| Odor threshold: | Not available. |
| pH: | < 2 |
| Vapor pressure: | Not applicable/Not applicable |
| Boiling point/range: | > 100 °C (> 212°F) |
| Melting point/ range: | 0 °C (32°F) calculated |
| Specific gravity: | 1.00 - 1.02 at 60 °F (15.56 °C) |
| Vapor density: | Not applicable |
| Flash point: | > 100 °C (> 212°F) ; Aqueous solution |
| Flammable/Explosive limits - lower: | Not applicable |
| Flammable/Explosive limits - upper: | Not applicable |
| Autoignition temperature: | Not applicable |
| Flammability: | Not applicable |
| Evaporation rate: | Not applicable |
| Solubility in water: | Complete |
| Partition coefficient (n-octanol/water): | Not determined |
| VOC content: | Not applicable |
| 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: | Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. |
| Incompatible materials: | Avoid contact with organic materials, oils, greases, and any oxidizable materials. This product may react with strong alkalis. |
| Reactivity: | Not available. |
| Conditions to avoid: | Store away from incompatible materials. |

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

| | |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation: | Mists or vapors may be irritating to the respiratory tract. May cause sensitization by inhalation. |
| Skin contact: | This product is irritating to the skin. Contact with broken skin may lead to formation of firmly marginated "chrome sores". Product contains chromium, which may cause an allergic skin sensitization reaction. |
| Eye contact: | This product may cause irritation to the eyes. |
| Ingestion: | Ingestion of this product may cause nausea, vomiting and diarrhea. |

| Hazardous Component(s) | LD50s and LC50s | Immediate and Delayed Health Effects |
|-------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chromic acid | None | Allergen, Blood, Carcinogen, Central nervous system, Corrosive, Developmental, Eyes, Gastrointestinal, Irritant, Kidney, Liver, Mutagen, Reproductive, Respiratory |
| Tripotassium hexacyanoferrate | None | Cellular |

| Hazardous Component(s) | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|-------------------------------|-------------------------------|-----------------|---------------------------------------------|
| Chromic acid | Known To Be Human Carcinogen. | Group 1 | Yes |
| Tripotassium hexacyanoferrate | No | No | No |

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: | 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. This product contains chromium which is a hazardous waste (D007). Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes. |

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: | 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. |
| 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. |
| Hazard class or division: | 9 |
| Identification number: | UN 3082 |
| 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: | Chromic acid (CAS# 7738-94-5). |
| CERCLA/SARA Section 302 EHS: | None above reporting de minimis. Hydrogen fluoride (CAS# 7664-39-3). |
| 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). Chromic acid (CAS# 7738-94-5). |
| CERCLA Reportable quantity: | Chromic acid (CAS# 7738-94-5) 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/NDL 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 Material Safety Data Sheet format.

Prepared by: Regulatory Affairs

Issue date: 03/22/2018

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