

Safety Data Sheet

Product Trade Name: **ALCHROME® 2**

ID: AL2

*** Section 1 - Chemical Product and Company Identification ***

Product Trade Name: **ALCHROME® 2**

Manufacturer Information

Heatbath Corporation

P.O. Box 51048
Indian Orchard, MA 01151-5048

Contact Phone: (413) 452-2000
8:00 AM - 5:00 PM

CHEMTREC Emergency Phone: (800) 424-9300
24 Hours

CHEMTREC International: (703) 527-3887

Recommended Use: Chemical for producing chromate conversion coating on aluminum

Restrictions on Use: See Incompatibility, Section 10

*** Section 2 - Hazards Identification ***

OSHA Hazard Communication Standard: Considered a Hazardous Substance by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Classified as Dangerous Goods for transport purposes.

Hazard Classification:

Acute Aquatic Hazard Category 1 | Acute Toxicity (Dermal) Category 3 | Acute Toxicity (Inhalation) Category 2 | Acute Toxicity (Oral) Category 3 | Carcinogen Category 1A | Chronic Aquatic Hazard Category 1 | Oxidizing Liquid Category 3 | Reproductive Toxicity Category 2 | Respiratory Sensitizer Category 1A | Serious Eye Damage Category 1 | Skin Corrosion/Irritation Category 1A | Skin Sensitizer Category 1 | STOT - RE Category 1 | STOT - SE (Resp. Irr.) Category 3 | Germ Cell Mutagen Category 1B

Labeling:



Signal Word:

DANGER!

Hazard Statements:

May intensify fire: oxidizer. Toxic if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

PREVENTION:

Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take any precaution to avoid mixing with combustibles/organic material. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. [In case of inadequate ventilation] wear respiratory protection. Avoid release to the environment. Contaminated work clothing should not be allowed out of the workplace.

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**FIRST AID/IN CASE OF
FIRE:**

IF SWALLOWED: Immediately call a POISON CENTER/doctor. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. 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 do. Continue rinsing. IF exposed or concerned: Get medical advice/ attention. Specific treatment is urgent (see Section 4). If experiencing respiratory symptoms: Call a POISON CENTER/doctor. In case of fire: Use water jets for extinction. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. Collect spillage.

STORAGE:

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

DISPOSAL:

Dispose of contents/container in accordance with all local, regional, national and/or international regulations.

Hazards Not Otherwise Classified: N.A.

Percent of Ingredients of Unknown Toxicity: N.A.

*** Section 3 - Composition / Information on Ingredients ***

HAZARDOUS INGREDIENT	CAS #	PERCENT
CHROMIUM TRIOXIDE	1333-82-0	45 - 55% (T.S.)
SODIUM FLUOROSILICATE	16893-85-9	10 - 30% (T.S.)
POTASSIUM FERRICYANIDE(III)	13746-66-2	1 - 10% (T.S.)
SODIUM NITRATE	7631-99-4	10 - 30% (T.S.)

T.S. = Trade Secret

*per CFR 29, Part 1910.1200; ingredients listed only if deemed hazardous and comprise 1% or greater of the composition (0.1% or greater for carcinogens).

Component Related Regulatory Information: This product may be regulated, have exposure limits or other information identified.

*** Section 4 - First Aid Measures ***

If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. If there is evidence of severe skin irritation or skin burns: Avoid further contact. Immediately remove contaminated clothing, including footwear. Flush skin under running water for 15 minutes. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting.

*** Section 5 - Fire Fighting Measures ***

Flash Point: None.

Flammable Limits: None.

Upper Flammable Limit N.A.

Lower Flammable Limit N.A.

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Extinguishing Media, PPE and Guidance for FireFighter: Jets of water. Water spray or fog. Foam.

Fire and Explosion Hazards: Will not burn but increases intensity of fire. Heating may cause expansion or decomposition leading to violent rupture of containers. Heat affected containers remain hazardous. Hazardous fumes may be released under thermal decomposition.

Decomposition Products: chromium oxides, oxides of nitrogen, cyanide gas under certain conditions

*** Section 6 - Accidental Release Measures ***

Containment and Clean up procedures must be conducted in accordance with all local, state, and federal regulations.

Containment and Clean-Up Procedures: Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks. Clean up all spills immediately. Clear area of personnel and move upwind. Alert Fire Department and tell them location and nature of hazard. May be violently or explosively reactive.

*** Section 7 - Handling and Storage ***

Handling and Storage Procedures: Avoid personal contact and inhalation of dust, mist or vapors. Provide adequate ventilation. Always wear protective equipment and wash off any spillage from clothing. Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Salts of inorganic fluoride: react with water forming acidic solutions. are violent reactive with boron, bromine pentafluoride, bromine trifluoride, calcium disilicide, calcium hydride, oxygen difluoride, platinum, potassium. in aqueous solutions are incompatible with sulfuric acid, alkalis, ammonia, aliphatic amines, alkanolamines, alkylene oxides, amides, epichlorohydrin, isocyanates, nitromethane, organic anhydrides, vinyl acetate. Emptied containers of this product may contain hazardous vapors and residue. Clean thoroughly before reusing or discarding. Do not use a welding torch to cut container. Do not use for water or food storage.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines:

A. General Product Information: Follow all applicable exposure limits. Keep formation of airborne mists to a minimum.

B. Component Exposure Limits:

CAS #	HAZARDOUS INGREDIENT	OSHA PEL(mg/m3)	ACGIH TLV(mg/m3)
1333-82-0	Chromium Trioxide	0.005 Cr(VI)	0.05 (as Cr)
13746-66-2	Potassium Ferricyanide(III)	N.E.	N.E.
7631-99-4	Sodium Nitrate	N.E.	N.E.
16893-85-9	Sodium Fluorosilicate	2.5 (as F)	2.5 (as F)

*OSHA-PEL and ACGIH-TLV are 8-Hour TWA unless otherwise noted.

*per CFR 29, Part 1910.1200; ingredients listed only if deemed hazardous and comprise 1% or greater of the composition (0.1% or greater for carcinogens).

Engineering Controls: Set up ventilation to effectively remove and prevent buildup of any dust, vapor or mist generated from the handling of this product.

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PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face Protective Equipment: Wear appropriate eye protection to prevent eye contact.

Skin Protection: Wear appropriate personal protective clothing to prevent skin contact. The worker should immediately wash the skin when it becomes contaminated. Remove wet or significantly contaminated work clothing and replace.

Respiratory Protection: If ventilation is not sufficient to effectively prevent buildup of dust, mists or vapors, provide appropriate NIOSH/MSHA respiratory protection.

Personal Protective Equipment: Provide eyewash fountains in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection.

Provide facilities for quickly drenching the body within the immediate work area for emergency use where there is a possibility of exposure. Depending on the specific circumstances, a deluge shower, a sink or hose could be considered adequate.

*** Section 9 - Physical & Chemical Properties ***

Physical State: Granular

Color: Pungent odor, red powder.

pH: Not Available

Specific Gravity: N.A.

Evaporation Rate: N.A.

Solubility Water: Complete.

Vapor Density: N.A.

Vapor Pressure: N.A.

Octanol-Water Coefficient: N.E.

Boiling Point: N.A.

Melting Point: Not Available

Flash Point: Not Available

Auto-Ignition Temperature: N.E.

Decomposition Temperature: N.E.

Flammability Limits - Low: N.A.

Hi: N.A.

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability: Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerization will not occur.

Conditions to Avoid: Excessive heat and contact with combustibles or organic materials

Incompatibility: Strong acids & alkali, cyanides, sulfides, oxidizable materials, combustibles, organics, heat.

Decomposition Products: See Section 5

Hazardous Polymerization: Will not occur.

*** Section 11 - Toxicological Information ***

Route of Exposure: eye/skin contact, inhalation, ingestion.

Acute Toxicity:

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A: General Product Information

Eye Contact: The material can produce severe chemical burns to the eye following direct contact. Vapors or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage.

Skin Contact: Skin contact with the material may produce toxic effects; systemic effects may result following absorption. The material can produce severe chemical burns following direct contact with the skin. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Skin Absorption: No information available for this product.

Ingestion: Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual. The material can produce severe chemical burns within the oral cavity and gastrointestinal tract following ingestion. Fluoride causes severe loss of calcium in the blood, with symptoms appearing several hours later including painful and rigid muscle contractions of the limbs. Cardiovascular collapse can occur and may cause death with increased heart rate and other heart rhythm irregularities.

Inhalation: Inhalation of dusts, generated by the material, during the course of normal handling, may produce severely toxic effects; these may be fatal. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Acute effects of fluoride inhalation include irritation of nose and throat, coughing and chest discomfort.

Chronic Hazards: Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Inhaling this product is more likely to cause a sensitization reaction in some persons compared to the general population. May cause cancer.

Medical Conditions Aggravated by Exposure: The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's edema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.

Carcinogenicity:

a: Component Carcinogenicity:

Hexavalent Chromium

NTP: Yes.

IARC: Yes.

OSHA: No.

*** Section 12 - Ecological Information ***

Ecotoxicity:

A: General Product Information

No information available for this product.

B. Component Analysis - Ecotoxicity - Aquatic Toxicity:

No information available for this product.

Persistence and Mobility: No information available for this product

Environmental: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Mobility in Soil: No information available.

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*** Section 13 - Disposal Considerations ***

Wastes must be tested using methods described in 40 CFR Part 261. It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous wastes. State and local regulations may differ from Federal disposal regulations. Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.

*** Section 14 - Transportation Information ***

US DOT Information: UN3087, OXIDIZING SOLID, TOXIC, N.O.S. (CHROMIUM TRIOXIDE, SODIUM NITRATE), 5.1 (6.1, 8), PG II

Marine Pollutant: Yes

IMDG Classification: UN3087, OXIDIZING SOLID, TOXIC, N.O.S. (CHROMIUM TRIOXIDE, SODIUM NITRATE), 5.1 (6.1, 8), PG II

IATA Classification: UN3087, OXIDIZING SOLID, TOXIC, N.O.S. (CHROMIUM TRIOXIDE, SODIUM NITRATE), 5.1 (6.1, 8), PG II

The data provided in this section is for information only and may not be specific for the package size or mode of transportation. See package label for further details.

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

No additional information available.

B: Component Analysis

This material may contain chemicals, requiring identification under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

HAZARDOUS COMPONENT	CERCLA RQ LBS.	SECT 302 TPQ LBS.	SECT 313* TOXIC	Maximum %
Chromium Trioxide	10	N.A.	Yes	55
Potassium Ferricyanide(III)	N.A.	N.A.	Yes	10
Sodium Nitrate	N.A.	N.A.	No (Solution)	30

Sara 311/312 Hazards:	Immediate (Acute)	TRUE
	Chronic*	TRUE
	Fire	TRUE
	Sudden Release-of-Pressure	FALSE
	Reactive	TRUE

State Regulations

A: General Product Information

No additional information available.

Other Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

B: Component Analysis - Inventory

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*** Section 16 - Other Information ***

Revision Date:

Rev. 1, June 1, 2015

Key/Legend:

ACGIH = American Conference of Governmental Industrial Hygienists	NFPA = National Fire Protection Association
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act	NIOSH = National Institute for Occupational Safety and Health
EPA = Environmental Protection Agency	NTP = National Toxicology Program
HMIS = Hazardous Material Identification System	OSHA = Occupational Safety and Health Administration
IARC = International Agency for Research on Cancer	SARA = Superfund Amendments and Reauthorization Act
MSHA = Mine Safety and Health Administration	TSCA = Toxic Substance Control Act

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Heatbath Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

This is the end of MSDS for ALCHROME® 2.