



# Safety Data Sheet

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

Product Name: CC-1020

MSDS Revision: 0001

Description: Liquid Chromated Aluminum Conversion Coating

Revision Date: 10/25/2016

Product Number: 15-0106

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Aero Clean Technologies, LLC

1320 Stephenson Ave

Lynchburg, VA 24501

For More Information Call: 434-381-0699 (Monday-Friday 7:00-6:00)

In Case of Emergency Call: 765-271-0430 (24 Hours/Day, 7 Days/Week)

### WHMIS Classification / Symbol:

D-2B : Materials Causing Other Toxic Effects: Very Toxic Material (> 1%)

E : Corrosive Material at (>1%)



Signal Word: **CORROSIVE!**

### Hazard Statements

H351 Suspected of causing cancer

### Precautionary Statements

P102 Keep out of reach of children.

P103 Read label before use.

P270 Do not eat, drink or smoke when using this product.

P281 Use personal protective equipment as required.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

## 2. COMPOSITION, INFORMATION ON INGREDIENTS (Not Intended As Specifications)

Description	CAS Number	Concentration
Chromium trioxide	1333-82-0	0 - 1
Sodium fluorosilicate	16893-85-9	0 - 1
Potassium Ferricyanide	13746-66-2	0 - 1
Ammonium Bifluoride	1341-49-7	0 - 1
Potassium Hexafluorozirconate	16923-95-8	0 - 1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 3. HAZARDS IDENTIFICATION

**Overview** Material is corrosive and will burn eyes. Can cause skin defatting and irritation with prolonged exposure. Inhalation may cause headache, nausea, dizziness. Prolonged exposure may lead to dermatitis. Ingestion may lead to vomiting. Severe overexposures may lead to coma and possible death due to respiratory failure.

**Inhalation** Inhalation of product may cause headache, nausea, and dizziness.

**Skin Contact** Can cause skin defatting and irritation with prolonged exposure.

<b>Skin Absorption</b>	None noted.
<b>Eye Contact</b>	Product contact to the eye may cause irritation, redness and pain. Product residues on fingers, hands or gloves may contact the eyes and cause eye irritation, redness and pain.
<b>Ingestion</b>	Ingestion of this product causes irritation of the mouth and throat. Ingestion may lead to vomiting and abdominal pain.
<b>Other</b>	None noted.

#### 4. FIRST-AID MEASURES

<b>General</b>	If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a <b>POISON CONTROL CENTER, EMERGENCY ROOM, OR PHYSICIAN</b> immediately; have Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.
<b>Inhalation</b>	Remove to fresh air and restore breathing if necessary. Seek medical attention.
<b>Skin Contact</b>	Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation persists.
<b>Eye Contact</b>	Immediately flush eyes with water for 15 minutes while holding eyelids open for maximum irrigation. Seek medical attention.
<b>Ingestion</b>	Seek immediate medical attention. <b>DO NOT</b> induce vomiting unless directed by medical personnel.
<b>Physicians Note</b>	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

#### 5. FIRE-FIGHTING MEASURES

Flash Point LE	Not applicable	Flash Point UEL	Not applicable	Auto Ignition:	Not applicable	Boiling Point	> 212°F (100°C)
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Unusual Fire or Exposure Hazards

Sensitivity to Mechanical Impact Not expected to be sensitive to mechanical impact.

Rate of Burning Not determined.

Explosive Power Not determined.

Sensitivity to Static Charge Not applicable.

Extinguishing Media Use an extinguishing agent suitable for the surrounding fire.

Instructions to Fire Fighters No special instructions.

Fire Fighting Protective Equipment Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental Precautions** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

**Large Spill Handling**

- Stop leak without risking safety.
- Move containers from spill area.
- Approach release from upwind.
- Prevent entry into sewers, water ways, basements, or confined areas.
- Wash spillages into an effluent treatment plant. If effluent treatment plant is not available then contain and collect spillage with non-combustible, absorbent material (i.e. sand, earth, vermiculite, or diatomaceous earth) and place in container for disposal according to local regulations (see Section 13).
- Dispose of via a licensed waste disposal contractor.
- Contaminated absorbent material may pose the same hazard as the spilled product.

**Note:** see Section 1 for emergency contact information and Section 13 for waste disposal.

**Small Spill Handling**

Stop leak if without risking personal or environmental well being. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**7. HANDLING AND STORAGE**

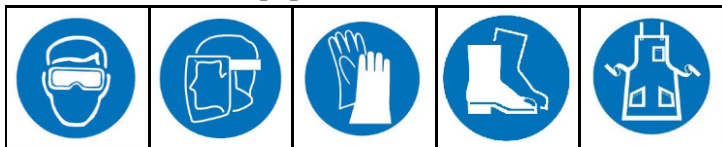
**Handling** Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not breathe vapor or mist. Do not swallow. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Storage** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Chromium trioxide</b>								
<b>TWA</b>	<b>ACGIH STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>OSHA STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>NIOSH STEL</b>	<b>CEILING</b>
0.05 mg/m <sup>3</sup> Cr					0.1 mg/m <sup>3</sup> CrO <sub>3</sub>	0.0002 mg/m <sup>3</sup> Cr		
<b>Sodium fluorosilicate</b>								
<b>TWA</b>	<b>ACGIH STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>OSHA STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>NIOSH STEL</b>	<b>CEILING</b>
2.5 mg/m <sup>3</sup>				2.5 mg/m <sup>3</sup>			2.5 mg/m <sup>3</sup>	
<b>Potassium Ferricyanide</b>								
<b>TWA</b>	<b>ACGIH STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>OSHA STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>NIOSH STEL</b>	<b>CEILING</b>
			5 mg/m <sup>3</sup>					
<b>Ammonium Bifluoride</b>								
<b>TWA</b>	<b>ACGIH STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>OSHA STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>NIOSH STEL</b>	<b>CEILING</b>
2.5 mg/m <sup>3</sup>				2.5 mg/m <sup>3</sup>				
<b>Potassium Hexafluorozirconate</b>								
<b>TWA</b>	<b>ACGIH STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>OSHA STEL</b>	<b>CEILING</b>	<b>TWA</b>	<b>NIOSH STEL</b>	<b>CEILING</b>
5 mg/m <sup>3</sup> (as Zr)	10 mg/m <sup>3</sup> (as Zr)		5 mg/m <sup>3</sup> (as Zr)			5 mg/m <sup>3</sup> (as Zr)		

**Personal Protective Equipment (PPE)**



**General PPE** Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: Half-face filter respirator

Hands	Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly affect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include: NEOPRENE and NITRILE If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.
Eyes	Chemical splash goggles or face shield should be used. Safety Glasses do not offer enough protection from spray and splashing product.
Skin and Body	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Hygiene	Wash hands, forearms, and face thoroughly after handling chemical products prior to eating, smoking, using the lavatory, and at the end of the working periods. Appropriate procedures should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid	Density: 8.76 pounds/gallon	
Appearance: Dark	pH: < 2.0	
Color: Orange	Viscosity: Water thin	
Odor: None	Solubility in Water: Complete	
Boiling Point: > 212°F (100°C)	Flash Point LEL: Not applicable	Vapor Density: Not Determined
Freezing Point: < 32° (0° C)	Flash Point UEL: Not applicable	Vapor Pressure: Not Determined
Melting Point:	Auto Ignition: Not applicable	Evaporation Rate: Not Determined
		VOC: Not applicable

## 10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions
Conditions to Avoid	None determined
Materials to Avoid	Strong Alkalies and Oxidizable materials.
Decomposition	May generate Hydrogen fluoride. When heated to decomposition may emite cyanide fumes.
Polymerization	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>Chromium trioxide</b>	
Test Method	Dosage/Concentration
LC50 (inhalation, rat)	0.217 mg/L (4 hours)
LD50 (dermal, rabbit)	55 mg/kg
LD50 (oral rat)	50 mg/kg
<b>Potassium Ferricyanide</b>	
Test Method	Dosage/Concentration
LD50 (oral, mouse)	2970 mg/kg
<b>Potassium Hexafluorozirconate</b>	
Test Method	Dosage/Concentration
LD50 (oral, mouse)	98 mg/kg
<b>Sodium fluorosilicate</b>	
Test Method	Dosage/Concentration
LD50 (oral, rabbit)	125 mg/kg
LD50 (oral rat)	125 mg/kg
LD50 (rat, skin)	70 mg/kg

## 12. ECOLOGICAL INFORMATION

## 13. DISPOSAL CONSIDERATIONS

Any disposal practice must be in compliance with local, state and federal laws and regulations (contact local or state environment agency for specific rules). Do not dump in sewers, any body of water, or on the ground unless it complies with local, state, and federal laws and regulation.

Empty containers retain product residue and can be dangerous. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. Do not dispose of package until thoroughly washed and rinsed out.

## 14. TRANSPORT INFORMATION

In accordance with ICAO/IATA/DOT/TDG

UN Number: UN1755

UN Proper Shipping Name CHROMIC ACID SOLUTION

UN Class: 8

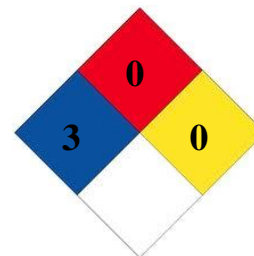
Package Group (DOT) II

## 15. REGULATORY INFORMATION

All regulatory information is stated as provided by MSDS from manufacturer/distributor.

There are no materials/ingredients listed by manufacturer/distributors that have information to report in this section.

## 16. OTHER INFORMATION



This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.