

Material Safety Data Sheet

Revised: 3-04

Section 1 – Identification of substance:

Manufacturer's Name
Coatings For Industry, Inc.

Emergency Response #

1-800-535-5053

Address
319 Township Line Road
Souderton, PA 18964

Non-Emergency #

215-723-0919

Trade Name and Synonyms

Aleal 519

Chemical Name and Synonyms
Aluminum Filled Phosphate/
Chromate Solution

Chemical Family

Acid

Section 2 – Composition / Data on components:

	%	CAS#	EINECS#	EU#
Aluminum Powder	42	7429-90-5	2310723	013-001-00-6
Phosphoric Acid (H ₃ PO ₄)	13.4	7664-38-2	2316332	15-011-00-6
Chromium (VI) Oxide	3.3	1333-82-0	2156078	024-001-00-0

Note: The national toxicology program lists chromium and certain chromium compounds to be carcinogenic.

This product contains aluminum powder, and chromic acid which are subject to the reporting requirements of SARA III, section 313.

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3 – Hazards Identification:

Hazard Description: T, C

Risk Phrases: R49, R8, R25, R34, R43

Section 4 – First aid measures:

General information: Completely remove any clothing soiled by product.

After eye contact: Object is to flush material out immediately, then seek medical attention. Immediately flush eyes with large amounts of water for at least 15 minutes forcibly holding lids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within one minute of contact is essential to achieve maximum effectiveness. Seek medical attention immediately.

After skin contact: Immediately wash contaminated areas with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and footwear and wash before reuse. Discard footwear which cannot be decontaminated. Seek medical attention if irritation develops.

After inhalation: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. Get medical attention.

After ingestion: Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water. If available, give several glasses of milk. Follow with milk of magnesia. If vomiting occurs spontaneously, keep airway clear and give more water. Seek medical attention immediately.

Section 5 - Fire fighting measures:

Flash Point ~~~~~ None

Extinguishing Media ~~~~~ Use Sand or Carbon Dioxide (CO₂)

Special Fire Fighting Procedures - Do not use extinguishing agents containing water as a reaction with aluminum may produce hydrogen gas. Wear protective clothing and NIOSH/OSHA approved positive pressure self contained breathing apparatus in fire conditions.

Unusual Fire and Explosion Hazards - Contact with alkalis, strong reducing or oxidizing agents may produce hydrogen gas causing fire or explosion hazard.

Caution: Toxic phosphide may be given off in fire or other very high temperature conditions.

Section 6 – Accidental release measures:

If material is spilled: Evacuate nonessential personnel. Use sawdust, vermiculite, fuller's earth or other absorbent material to soak up spill then neutralize with sodium bicarbonate. Then flush area with water. Do not use strong alkalis.

Waste disposal method: Filter to remove aluminum and discard as solid chemical waste. Treat remaining liquid with sodium metabisulfate, then precipitate trivalent chromium by neutralizing with alkali, such as lime.

Waste must be disposed of in accordance with federal, state, and local environmental control regulations.

Section 7 – Handling and storage:

Storage temperature: protect from freezing.

Handling and storage precautions:

Store in area where it will not come into contact with strong alkalis or oxidizing agents as hydrogen gas may be produced causing fire or explosion hazard.

Other precautions:

Avoid contact with skin and eyes. Employee education and training in the safe use and handling of this product are required under the OSHA hazard communication standard.

Section 8 – Exposure Controls and Personal Protection

Required work/hygiene procedures: precautions must be taken so that persons handling this product do not breathe vapors or have it contact the eyes or skin. Protection must be afforded against exposure to spray mist.

Eye protection: safety glasses, chemical splash goggles or face shield.

Contact lenses should not be worn.

Skin protection requirements: Chemical resistant gloves. Aprons and clothing with maximum body coverage.

Respirator requirements: use NIOSH/OSHA approved respirator when spraying. #9910 respirator mfg. By 3M or equivalent is suggested. Observe OSHA regulations for respirator use (29 CFR 1910.134).

Ventilation requirements:

Exhaust ventilation sufficient to remove spray mist.

Additional protective measures:

Safety showers and eyewash stations should be available. Educate and train employees in safe use of product.

Components with limit values that require monitoring at the workplace:

Aluminum powder:

	mg/m ³
ACGIH TLV	10
Belgium TWA	10
Denmark TWA	10
Finland TWA	10
France TWA	10
Germany MAK	6
Hungary TWA	2
Ireland TWA	10
Netherlands TWA	10
Sweden TWA	5
Switzerland TWA	6
United Kingdom TWA	10
USA PEL (respirable)	5

Chromium (VI) Compounds, as Cr

	mg/m ³
ACGIH TLV	0.5; A1 (water soluble) 0.1; A1 (water insoluble)
Belgium TWA	0.5
Denmark TWA	0.5
Finland TWA	0.01
France TWA	0.5
Ireland TWA	0.05

Netherlands TWA	0.025; 0.05-STEL (soluble compounds-skin)
Sweden TWA	0.5
United Kingdom TWA	0.05
USA PEL	0.1 as CrO ₃ -STEL

Orthophosphoric Acid

	mg/m ³
ACGIH TLV	1; 3-STEL
Belgium TWA	1; 3-STEL
Denmark TWA	1
Finland TWA	1; 3-STEL (skin)
France TWA	1; 3-STEL
Ireland TWA	2-STEL
Netherlands TWA	1; 2-STEL
Sweden TWA	1; 3-STEL
Switzerland TWA	1
United Kingdom TWA	2-STEL
OSHA PEL	1

Section 9 - Physical and chemical properties

Specific Gravity	1.65
% Volatile by Volume	60.8%
Boiling Point	N/A
Water Solubility	Appreciable
Viscosity (#2 Zahn Cup)	16 to 18
pH	2.0
Appearance and Odor	Green-gray with no odor
V.O.C.	0

Section 10 – Stability and reactivity

Stability: Stable under normal conditions.

Conditions to avoid: Contact with alkalis or strong reducing or oxidizing agents.

Hazardous polymerization: Will not occur.

Incompatibilities: Contact with alkalis or strong reducing or oxidizing agents.

Section 11 – Toxicological information

Effects of acute and chronic overexposure: that of chromic acid.

Acute inhalation may irritate and ulcerate membranes.

Chronic inhalation: as a result of prolonged or repeated inhalation of mist may cause ulceration of nasal septum. Epidemiological studies indicate that long term exposure to high levels of mist is associated with increases in respiratory tract cancer in man. Thus far, epidemiological studies have not demonstrated any increased risk of lung cancer at levels below the current TLV for CrO₃.

Acute ingestion can result in severe injury or death.

Chronic ingestion: none found.

Acute skin contact may require medical attention. May cause ulcers on skin.

Chronic skin contact: prolonged or repeated skin contact, especially with broken skin, may cause severe irritation, ulcers and sores.

Acute eye contact: irritating and corrosive to eyes, may cause burns or loss of sight.

Permanent damage, while uncommon, can occur.

Chronic eye contact: prolonged or repeated contact may cause conjunctivitis.

Toxicology Data

Chromic Acid - NTP and IARC have determined that there is sufficient evidence for the carcinogenicity “lung tumors” of hexavalent chromium compounds both in humans and experimental animals. However, the hexavalent chromium compounds responsible “for human carcinogenicity” cannot be specified.

Note to Physician.....

Massive overexposure to chromic acid could lead to kidney failure and death. Death has been avoided in several such cases through the use of early renal dialysis. It has been reported that there is little value from chelating agents, however, ascorbic acid administered intravenously is an effective antidote in preventing renal failure. Skin ulcers

may be treated by removal from exposure, daily cleaning and debridement and application of antibiotic cream and dressing.

Section 12 – Ecological information

General notes:

Do not allow the material to be released to the environment without proper governmental permits.

Section 13 – Disposal considerations

Recommendation:

Consult state, local, or national regulations for proper disposal.

Uncleaned packagings:

Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

Section 14 – Transport information

DOT regulations:

Hazard class: 8

Identification number: UN3066

Packing group: III

Proper shipping name: Paint Related Material

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8
UN Number: 3066
Packaging group III
Proper shipping name: Paint Related Material

Section 15 – Regulations

Product Related Hazard Information:

Hazard Symbols:

T Toxic, C Corrosive

Risk Phrases:

- 49 May cause cancer by inhalation.
- 8 Contact with combustible material may cause fire.
- 25 Toxic if swallowed.
- 34 Causes burns.
- 43 May cause sensitization by skin contact.

Safety Phrases:

- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 45 In case of accident or if you feel unwell, seek medical advice immediately.

DOT classification-Paint Related Material, 8, UN3066, PGIII

OSHA status: This product is hazardous under the criteria of the Federal OSHA Communication Standard 29 CFR 1910.1200.,

SARA Title III:

Section 311/312 Hazard Categories:

- Immediate Health Hazard
- Delayed Health Hazard
- Fire Hazard

Section 313 Toxic Chemicals:

- Aluminum Powder (CAS #7429-90-5)
- Chromic Acid (CAS # 1333-82-0)

The following chemicals are specifically listed by individual states and agencies. Other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Component Name and CAS #

Listed On

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Aluminum Powder (CAS# 7429-90-5)

SARA Toxic Chemicals, section 313

Chromic Acid (CAS # 1333-82-0)

SARA Toxic Chemicals, section 313
IARC Human Carcinogen, group 1
Pennsylvania Hazardous Substance
NTP Known Human Carcinogen
California Proposition 65-Carcinogen
New Jersey Hazardous Substance

Information about limitation of use:

For use only by technically qualified individuals.

Section 16 – Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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