

ALFAA40107

## Silver chromate

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**产品说明:** 铬酸银, 99%最低  
**Product Description:** Silver chromate

**Cat No. :** 40107  
**CAS No** 7784-01-2  
**Molecular Formula** Ag<sub>2</sub>CrO<sub>4</sub>

**Supplier** Avocado Research Chemicals Ltd.  
(Part of Thermo Fisher Scientific)  
Shore Road, Heysham  
Lancashire, LA3 2XY,  
United Kingdom  
Office Tel: +44 (0) 1524 850506  
Office Fax: +44 (0) 1524 850608

**Emergency Telephone Number** For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

**E-mail address** begel.sdsdesk@thermofisher.com

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

### SECTION 2. HAZARD IDENTIFICATION

**Physical State**  
Solid

**Appearance**  
Black

**Odor**  
No information available

#### Emergency Overview

May intensify fire; oxidizer. May cause an allergic skin reaction. May cause cancer by inhalation. Very toxic to aquatic life with long lasting effects.

#### Classification of the substance or mixture

|                          |             |
|--------------------------|-------------|
| Oxidizing solids         | Category 3  |
| Skin Sensitization       | Category 1  |
| Carcinogenicity          | Category 1B |
| Acute aquatic toxicity   | Category 1  |
| Chronic aquatic toxicity | Category 1  |

#### Label Elements



**Signal Word****Danger****Hazard Statements**

H272 - May intensify fire; oxidizer  
H317 - May cause an allergic skin reaction  
H350i - May cause cancer by inhalation  
H410 - Very toxic to aquatic life with long lasting effects

**Precautionary Statements****Prevention**

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P220 - Keep away from clothing and other combustible materials  
P221 - Take any precaution to avoid mixing with combustibles  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P272 - Contaminated work clothing should not be allowed out of the workplace  
P280 - Wear protective gloves

**Response**

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P308 + P313 - IF exposed or concerned: Get medical advice/attention  
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish  
P362 + P364 - Take off contaminated clothing and wash it before reuse

**Storage**

P403 - Store in a well-ventilated place

**Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

**Physical and Chemical Hazards**

Oxidizing. Contact with combustible material may cause fire.

**Health Hazards**

May cause an allergic skin reaction. May cause cancer by inhalation.

**Environmental hazards**

Very toxic to aquatic life with long lasting effects.

This product does not contain any known or suspected endocrine disruptors.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component       | CAS No    | Weight % |
|-----------------|-----------|----------|
| Silver chromate | 7784-01-2 | 99       |

**SECTION 4. FIRST AID MEASURES****General Advice**

If symptoms persist, call a physician.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Most important symptoms and effects**

None reasonably foreseeable. . May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Self-Protection of the First Aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

**Notes to Physician**

Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Specific Hazards Arising from the Chemical**

Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.). Do not allow run-off from fire-fighting to enter drains or water courses.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

**Environmental Precautions**

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. Should not be released into the environment.

**Methods for Containment and Clean Up**

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Refer to protective measures listed in Sections 8 and 13.

**SECTION 7. HANDLING AND STORAGE****Handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. Keep away from clothing and other combustible materials.

**Storage**

Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

**Specific Use(s)**

Use in laboratories

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

## SAFETY DATA SHEET

## Silver chromate

## Control Parameters

| Component       | China | Taiwan                      | Thailand | Hong Kong |
|-----------------|-------|-----------------------------|----------|-----------|
| Silver chromate | -     | TWA: 0.05 mg/m <sup>3</sup> |          | -         |

| Component       | ACGIH TLV | OSHA PEL   | NIOSH   | The United Kingdom   | European Union |
|-----------------|-----------|--|---|--|----------------|
| Silver chromate |           | (Vacated) Ceiling: 0.1 mg/m <sup>3</sup><br>Ceiling: 0.1 mg/m <sup>3</sup> | IDLH: 15 mg/m <sup>3</sup><br>TWA: 0.0002 mg/m <sup>3</sup> | STEL: 0.03 mg/m <sup>3</sup> 15 min<br>STEL: 0.065 mg/m <sup>3</sup> 15 min<br>TWA: 0.01 mg/m <sup>3</sup> 8 hr<br>TWA: 0.025 mg/m <sup>3</sup> 8 hr<br>Carc. as Cr<br>Resp. Sens. |                |

Legend

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

## Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

## Exposure Controls

## Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

## Personal protective equipment

**Eye Protection** Wear safety glasses with side shields (or goggles) (European standard - EN 166)

**Hand Protection** Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments        |
|----------------|-------------------|-----------------|-------------|-----------------------|
| Natural rubber | See manufacturers | -               | EN 374      | (minimum requirement) |
| Nitrile rubber | recommendations   |                 |             |                       |
| Neoprene       |                   |                 |             |                       |
| PVC            |                   |                 |             |                       |

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection** Long sleeved clothing

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use** Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced  
**Recommended Filter type:** Particulates filter conforming to EN 143

**SAFETY DATA SHEET**

Silver chromate

|  |  |
|--|--|
| <b>Small scale/Laboratory use</b>      | Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.<br><b>Recommended half mask:-</b> Particle filtering: EN149:2001<br>When RPE is used a face piece Fit Test should be conducted |
| <b>Hygiene Measures</b>                | Handle in accordance with good industrial hygiene and safety practice.   |
| <b>Environmental exposure controls</b> | Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.  |

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

|  |                                  |  |
|--|----------------------------------|--|
| <b>Appearance</b>                              | Black                            |  |
| <b>Physical State</b>                          | Solid                            |  |
| <b>Odor</b>                                    | No information available         |  |
| <b>Odor Threshold</b>                          | No data available                |  |
| <b>pH</b>                                      |                                  |  |
| <b>Melting Point/Range</b>                     | No data available                |  |
| <b>Softening Point</b>                         | No data available                |  |
| <b>Boiling Point/Range</b>                     | No information available         |  |
| <b>Flash Point</b>                             | No information available         | <b>Method -</b> No information available |
| <b>Evaporation Rate</b>                        | Not applicable                   | Solid                                    |
| <b>Flammability (solid,gas)</b>                | No information available         |  |
| <b>Explosion Limits</b>                        | No data available                |  |
| <b>Vapor Pressure</b>                          | No information available         |  |
| <b>Vapor Density</b>                           | Not applicable                   | Solid                                    |
| <b>Specific Gravity / Density</b>              | 5.6250                           |  |
| <b>Bulk Density</b>                            | No data available                |  |
| <b>Water Solubility</b>                        | No information available         |  |
| <b>Solubility in other solvents</b>            | No information available         |  |
| <b>Partition Coefficient (n-octanol/water)</b> |                                  |  |
| <b>Autoignition Temperature</b>                | No data available                |  |
| <b>Decomposition Temperature</b>               | No data available                |  |
| <b>Viscosity</b>                               | Not applicable                   | Solid                                    |
| <b>Explosive Properties</b>                    | No information available         |  |
| <b>Oxidizing Properties</b>                    | Oxidizer                         |  |
| <b>Molecular Formula</b>                       | Ag <sub>2</sub> CrO <sub>4</sub> |  |
| <b>Molecular Weight</b>                        | 331.72                           |  |

**SECTION 10. STABILITY AND REACTIVITY**

|                                 |   |
|---------------------------------|---|
| <b>Stability</b>                | Oxidizer: Contact with combustible/organic material may cause fire. |
| <b>Hazardous Reactions</b>      | None under normal processing.                                       |
| <b>Hazardous Polymerization</b> | No information available.   |
| <b>Conditions to Avoid</b>      | Incompatible products. Excess heat. Combustible material.           |
| <b>Materials to avoid</b>       | Strong reducing agents. Combustible material.                       |

**Hazardous Decomposition Products** Chromium oxide.**SECTION 11. TOXICOLOGICAL INFORMATION**

---

**Product Information****(a) acute toxicity;****(b) skin corrosion/irritation;** No data available**(c) serious eye damage/irritation;** No data available**(d) respiratory or skin sensitization;****Respiratory** No data available  
**Skin** Category 1

May cause sensitization by skin contact

**(e) germ cell mutagenicity;** No data available**(f) carcinogenicity;** No data available

There are no known carcinogenic chemicals in this product

**(g) reproductive toxicity;** No data available**(h) STOT-single exposure;** No data available**(i) STOT-repeated exposure;** No data available**Target Organs** No information available.**(j) aspiration hazard;** Not applicable  
Solid**Symptoms / effects, both acute and delayed** Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

---

**SECTION 12. ECOLOGICAL INFORMATION**

---

**Ecotoxicity effects**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

**Persistence and Degradability****Persistence**  
**Degradability**  
**Degradation in sewage treatment plant**Product contains heavy metals. Discharge into the environment must be avoided. Special pre-treatment is necessary  
May persist.  
Not relevant for inorganic substances.  
Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.**Bioaccumulative Potential**

Product has a high potential to bioconcentrate

**Mobility in soil**

No information available

## Silver chromate

**Endocrine Disruptor Information**  
**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

This product does not contain any known or suspected endocrine disruptors  
This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

**SECTION 13. DISPOSAL CONSIDERATIONS****Waste from Residues/Unused Products**

Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point.

**Other Information**

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.

**SECTION 14. TRANSPORT INFORMATION****Road and Rail Transport**

**UN-No** UN1479  
**Proper Shipping Name** Oxidizing solid, n.o.s.  
**Technical Shipping Name** Silver chromate  
**Hazard Class** 5.1  
**Packing Group** III

**IMDG/IMO**

**UN-No** UN1479  
**Proper Shipping Name** Oxidizing solid, n.o.s.  
**Technical Shipping Name** Silver chromate  
**Hazard Class** 5.1  
**Packing Group** III

**IATA**

**UN-No** UN1479  
**Proper Shipping Name** Oxidizing solid, n.o.s.  
**Technical Shipping Name** Silver chromate  
**Hazard Class** 5.1  
**Packing Group** III

**Special Precautions for User** No special precautions required

**SECTION 15. REGULATORY INFORMATION****International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

| Component       | The Inventory of Hazardous Chemicals (2015 Edition) | List of dangerous goods GB 12268 - 2012 | TCSI | IECSC | EINECS    | TSCA | DSL | PICCS | ENCS | ISHL | AICS | KECL     |
|-----------------|---|---|------|-------|-----------|------|-----|-------|------|------|------|----------|
| Silver chromate | -   | -                                       | X    | X     | 232-043-8 | X    | -   | X     | -    |      | -    | KE-31268 |

## National Regulations

| Component                           | Toxic Chemical Substances Control Act |
|-------------------------------------|---------------------------------------|
| Silver chromate<br>7784-01-2 ( 99 ) | Class II (1 wt%)<br>TRQ = 500 kg      |

## SECTION 16. OTHER INFORMATION

Prepared By Health, Safety and Environmental Department  
Revision Date 22-Apr-2024  
Revision Summary New emergency telephone response service provider.

## Training Advice

Chemical incident response training.  
Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.  
Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.  
First aid for chemical exposure, including the use of eye wash and safety showers.

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

## Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text



# SAFETY DATA SHEET

Silver chromate

---

**End of Safety Data Sheet**