

## SAFETY DATA SHEET

Creation Date 05-February-2010

Revision Date 17-January-2018

Revision Number 4

### 1. Identification

**Product Name** Potassium chromate

**Cat No. :** P220-3; P220-100; P220-500

**CAS-No** 7789-00-6  
**Synonyms** Chromic acid, dipotassium salt (Granular/Certified ACS)

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Not for food, drug, pesticide or biocidal product use

#### Details of the supplier of the safety data sheet

##### Company

##### **Importer/Distributor**

Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

##### **Manufacturer**

Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

##### **Emergency Telephone Number**

CHEMTREC®, Inside the USA: 800-424-9300  
CHEMTREC®, Outside the USA: 001-703-527-3887

### 2. Hazard(s) identification

#### Classification

**WHMIS 2015 Classification** Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

|   |             |
|---|-------------|
| <b>Skin Corrosion/irritation</b>                            | Category 2  |
| <b>Serious Eye Damage/Eye Irritation</b>                    | Category 2  |
| <b>Skin Sensitization</b>                                   | Category 1  |
| <b>Germ Cell Mutagenicity</b>                               | Category 1B |
| <b>Carcinogenicity</b>                                      | Category 1A |
| <b>Specific target organ toxicity (single exposure)</b>     | Category 3  |
| Target Organs - Respiratory system.                         |             |
| <b>Specific target organ toxicity - (repeated exposure)</b> | Category 2  |
| Target Organs - Kidney, Liver, Blood.                       |             |

#### Label Elements

##### **Signal Word**

Danger

##### **Hazard Statements**

Causes skin irritation  
May cause an allergic skin reaction

Causes serious eye irritation  
 May cause respiratory irritation  
 May cause genetic defects  
 May cause cancer by inhalation  
 May cause damage to organs through prolonged or repeated exposure



### Precautionary Statements

#### Prevention

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Do not breathe dust/fumes/gas/mist/vapours/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Use only outdoors or in a well-ventilated area  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves/protective clothing/eye protection/face protection

#### Response

IF ON SKIN: Wash with plenty of soap and water  
 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  
 Take off contaminated clothing

#### Storage

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

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Other Hazards

Very toxic to aquatic life with long lasting effects

## 3. Composition/Information on Ingredients

| Component          | CAS-No    | Weight % |
|--------------------|-----------|----------|
| Potassium chromate | 7789-00-6 | >95      |

## 4. First-aid measures

#### General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

#### Inhalation

Move to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Immediate medical attention is required.

**Ingestion** Do not induce vomiting. Call a physician or Poison Control Center immediately.

**Most important symptoms/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

**Notes to Physician** Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media** No information available

**Flash Point** No information available  
**Method -** No information available

**Autoignition Temperature**

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

### Specific Hazards Arising from the Chemical

May ignite combustibles (wood paper, oil, clothing, etc.). Do not allow run-off from fire fighting to enter drains or water courses.

### Hazardous Combustion Products

Potassium oxides Chromium oxide

### 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. Thermal decomposition can lead to release of irritating gases and vapors.

### NFPA

**Health**  
2

**Flammability**  
0

**Instability**  
0

**Physical hazards**  
OX

## 6. Accidental release measures

**Personal Precautions** Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation.

**Environmental Precautions** Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. 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 or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

## 7. Handling and storage

**Handling** Wear personal protective equipment. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe vapors/dust. Do not ingest.

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

## 8. Exposure controls / personal protection

### Exposure Guidelines

| Component          | Alberta   | British Columbia   | Ontario TWAEV               | Quebec                      | ACGIH TLV                   | OSHA PEL  | NIOSH IDLH  |
|--------------------|---|--|-----------------------------|-----------------------------|-----------------------------|---|---|
| Potassium chromate | TWA: 0.05 mg/m <sup>3</sup><br>TWA: 0.5 mg/m <sup>3</sup> | TWA: 0.025 mg/m <sup>3</sup><br>Ceiling: 0.1 mg/m <sup>3</sup> | TWA: 0.05 mg/m <sup>3</sup> | TWA: 0.05 mg/m <sup>3</sup> | TWA: 0.05 mg/m <sup>3</sup> | (Vacated)<br>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> |

**Legend**

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

**Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. 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**

Goggles

**Hand Protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

| Glove material | Breakthrough time                 | Glove thickness | Glove comments         |
|----------------|-----------------------------------|-----------------|------------------------|
| Natural rubber | See manufacturers recommendations | -               | Splash protection only |
| Nitrile rubber |                                   |                 |                        |
| Neoprene       |                                   |                 |                        |
| PVC            |                                   |                 |                        |

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) 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. gloves with care avoiding skin contamination.

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Recommended Filter type:** Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls**

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.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

## 9. Physical and chemical properties

|                       |                          |
|-----------------------|--------------------------|
| <b>Physical State</b> | Solid                    |
| <b>Appearance</b>     | Yellow                   |
| <b>Odor</b>           | Odorless                 |
| <b>Odor Threshold</b> | No information available |
| <b>pH</b>             | 8.6-9.8 50 g/l aq.sol    |

|  |                          |
|--|--------------------------|
| Melting Point/Range                    | 975 °C / 1787 °F         |
| Boiling Point/Range                    | No information available |
| Flash Point                            | No information available |
| Evaporation Rate                       | Not applicable           |
| Flammability (solid,gas)               | No information available |
| Flammability or explosive limits       |                          |
| Upper                                  | No data available        |
| Lower                                  | No data available        |
| Vapor Pressure                         | No information available |
| Vapor Density                          | Not applicable           |
| Specific Gravity                       | No information available |
| Solubility                             | Soluble in water         |
| Partition coefficient; n-octanol/water | No data available        |
| Autoignition Temperature               |                          |
| Decomposition Temperature              | No information available |
| Viscosity                              | Not applicable           |
| Molecular Formula                      | Cr K2 O4                 |
| Molecular Weight                       | 194.2                    |

## 10. Stability and reactivity

|                                  |   |
|----------------------------------|---|
| Reactive Hazard                  | None known, based on information available                                      |
| Stability                        | Stable under normal conditions.   |
| Conditions to Avoid              | Incompatible products. Excess heat. Combustible material. Avoid dust formation. |
| Incompatible Materials           | Organic materials, Reducing agents  |
| Hazardous Decomposition Products | Potassium oxides, Chromium oxide  |
| Hazardous Polymerization         | Hazardous polymerization does not occur.  |
| Hazardous Reactions              | None under normal processing.   |

## 11. Toxicological information

### Acute Toxicity

#### Product Information

#### Component Information

Toxicologically Synergistic Products No information available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                 |  |
|-----------------|--|
| Irritation      | Irritating to eyes, respiratory system and skin  |
| Sensitization   | May cause sensitization by skin contact  |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component          | CAS-No    | IARC    | NTP   | ACGIH | OSHA | Mexico |
|--------------------|-----------|---------|-------|-------|------|--------|
| Potassium chromate | 7789-00-6 | Group 1 | Known | A1    | X    | A1     |

IARC: (International Agency for Research on Cancer)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

NTP: (National Toxicity Program)

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

A1 - Known Human Carcinogen  
A2 - Suspected Human Carcinogen  
A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)  
Mexico - Occupational Exposure Limits - Carcinogens

A1 - Confirmed Human Carcinogen  
A2 - Suspected Human Carcinogen  
A3 - Confirmed Animal Carcinogen  
A4 - Not Classifiable as a Human Carcinogen  
A5 - Not Suspected as a Human Carcinogen

|   |   |
|---|---|
| <b>Mutagenic Effects</b>                          | May cause heritable genetic damage  |
| <b>Reproductive Effects</b>                       | No information available.   |
| <b>Developmental Effects</b>                      | No information available.   |
| <b>Teratogenicity</b>                             | No information available.   |
| <b>STOT - single exposure</b>                     | Respiratory system  |
| <b>STOT - repeated exposure</b>                   | Kidney Liver Blood  |
| <b>Aspiration hazard</b>                          | No information available  |
| <b>Symptoms / effects, both acute and delayed</b> | 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 |
| <b>Endocrine Disruptor Information</b>            | No information available  |
| <b>Other Adverse Effects</b>                      | The toxicological properties have not been fully investigated.  |

## 12. Ecological information

### Ecotoxicity

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.

| Component          | Freshwater Algae | Freshwater Fish                          | Microtox   | Water Flea            |
|--------------------|------------------|--|------------|-----------------------|
| Potassium chromate | Not listed       | Pimephales promelas:<br>LC50=40 mg/L/96h | Not listed | EC50 = 0.015 mg/L/48h |

|                                      |   |
|--------------------------------------|---|
| <b>Persistence and Degradability</b> | May persist based on information available.                           |
| <b>Bioaccumulation/ Accumulation</b> | No information available.   |
| <b>Mobility</b>                      | Will likely be mobile in the environment due to its water solubility. |

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

### DOT

|                              |  |
|------------------------------|--|
| <b>UN-No</b>                 | UN3077   |
| <b>Proper Shipping Name</b>  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| <b>Proper technical name</b> | Potassium chromate                                 |
| <b>Hazard Class</b>          | 9  |
| <b>Packing Group</b>         | III  |

### TDG

|                             |  |
|-----------------------------|--|
| <b>UN-No</b>                | UN3077   |
| <b>Proper Shipping Name</b> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |

|                             |  |
|-----------------------------|--|
| <b>Hazard Class</b>         | 9  |
| <b>Packing Group</b>        | III  |
| <b>IATA</b>                 |  |
| <b>UN-No</b>                | UN3077   |
| <b>Proper Shipping Name</b> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| <b>Hazard Class</b>         | 9  |
| <b>Packing Group</b>        | III  |
| <b>IMDG/IMO</b>             |  |
| <b>UN-No</b>                | UN3077   |
| <b>Proper Shipping Name</b> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| <b>Hazard Class</b>         | 9  |
| <b>Packing Group</b>        | III  |

## 15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

### International Inventories

| Component          | DSL | NDSL | TSCA | EINECS    | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|--------------------|-----|------|------|-----------|--------|-----|-------|------|------|-------|------|
| Potassium chromate | X   | -    | X    | 232-140-5 | -      |     | X     | X    | X    | X     | X    |

### Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

## 16. Other information

|                         |  |
|-------------------------|--|
| <b>Prepared By</b>      | Regulatory Affairs<br>Thermo Fisher Scientific<br>Email: EMSDS.RA@thermofisher.com   |
| <b>Creation Date</b>    | 05-February-2010   |
| <b>Revision Date</b>    | 17-January-2018  |
| <b>Print Date</b>       | 17-January-2018  |
| <b>Revision Summary</b> | This document has been updated to comply with the requirements of WHMIS 2015 to align with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals. |

### 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

**End of SDS**