

## SAFETY DATA SHEET

Revision Date 30-March-2024

Revision Number 3

### 1. Identification

**Product Name** Chromium arsenide

**Cat No. :** 39205

**CAS-No** 12254-85-2  
**Synonyms** No information available

**Recommended Use** Laboratory chemicals.  
**Uses advised against** 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

##### **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

### 2. Hazard(s) identification

#### Classification

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

|                                  |             |
|----------------------------------|-------------|
| <b>Acute oral toxicity</b>       | Category 3  |
| <b>Acute Inhalation Toxicity</b> | Category 3  |
| <b>Carcinogenicity</b>           | Category 1A |

#### Label Elements

##### **Signal Word**

Danger

##### **Hazard Statements**

Toxic if swallowed or if inhaled

May cause cancer

Toxic if inhaled

**Precautionary Statements****Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
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

**Response**

IF SWALLOWED: Immediately call a POISON CENTER/doctor  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
IF exposed or concerned: Get medical advice/attention  
Call a POISON CENTER/ doctor  
Rinse mouth

**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 % |
|--|------------|----------|
| Chromium arsenide (Cr <sub>2</sub> As) | 12254-85-2 | <=100    |

### 4. First-aid measures

|  |  |
|--|--|
| <b>General Advice</b>                  | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.  |
| <b>Eye Contact</b>                     | In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.   |
| <b>Skin Contact</b>                    | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.  |
| <b>Inhalation</b>                      | Remove 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. |
| <b>Ingestion</b>                       | Do NOT induce vomiting. Call a physician or poison control center immediately.   |
| <b>Most important symptoms/effects</b> | None reasonably foreseeable.   |
| <b>Notes to Physician</b>              | Treat symptomatically  |

## 5. Fire-fighting measures

**Unsuitable Extinguishing Media** No information available

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

**Autoignition Temperature** No information available

**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**

Do not allow run-off from fire-fighting to enter drains or water courses.

**Hazardous Combustion Products**

None known.

**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**  
3

**Flammability**  
0

**Instability**  
0

**Physical hazards**  
-

## 6. Accidental release measures

**Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

**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.

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

## 7. Handling and storage

**Handling**

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.

**Storage.**

Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

| Component                              | Alberta   | British Columbia            | Ontario TWAEV   | Quebec                      | ACGIH TLV                   | OSHA PEL | NIOSH   |
|--|---|-----------------------------|---|-----------------------------|-----------------------------|----------|---|
| Chromium arsenide (Cr <sub>2</sub> As) | TWA: 0.01 mg/m <sup>3</sup><br>TWA: 0.5 mg/m <sup>3</sup> | TWA: 0.01 mg/m <sup>3</sup> | TWA: 0.01 mg/m <sup>3</sup><br>STEL: 0.05 mg/m <sup>3</sup> | TWA: 0.01 mg/m <sup>3</sup> | TWA: 0.01 mg/m <sup>3</sup> |          | IDLH: 5 mg/m <sup>3</sup><br>Ceiling: 0.002 mg/m <sup>3</sup> |

**Legend**

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures**

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 appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**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 compatability, 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 and gloves, including the inside, before re-use. Wash hands before breaks and after work.

## 9. Physical and chemical properties

|                                  |                          |
|----------------------------------|--------------------------|
| Physical State                   | Solid                    |
| Appearance                       | Grey                     |
| Odor                             | No information available |
| Odor Threshold                   | No information available |
| pH                               | No information available |
| Melting Point/Range              | No data available        |
| 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                             | No information available |
| Partition coefficient; n-octanol/water | No data available        |
| Autoignition Temperature               | No information available |
| Decomposition Temperature              | No information available |
| Viscosity                              | Not applicable           |
| Molecular Formula                      | Cr <sub>2</sub> As       |
| Molecular Weight                       | 178.98                   |

## 10. Stability and reactivity

|                                  |  |
|----------------------------------|--|
| Reactive Hazard                  | None known, based on information available |
| Stability                        | Stable under normal conditions.            |
| Conditions to Avoid              | Incompatible products.                     |
| Incompatible Materials           | Strong oxidizing agents                    |
| Hazardous Decomposition Products | None under normal use conditions           |
| 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      | No information available   |
| Sensitization   | No information available   |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component                              | CAS-No     | IARC       | NTP   | ACGIH | OSHA       | Mexico |
|--|------------|------------|-------|-------|------------|--------|
| Chromium arsenide (Cr <sub>2</sub> As) | 12254-85-2 | Not listed | Known | A1    | Not listed | A1     |

NTP: (National Toxicity Program)

ACGIH: (American Conference of Governmental Industrial Hygienists)

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

|                        |                           |
|------------------------|---------------------------|
| Mutagenic Effects      | No information available  |
| Reproductive Effects   | No information available. |
| Developmental Effects  | No information available. |
| Teratogenicity         | No information available. |
| STOT - single exposure | None known                |

|   |  |
|---|--|
| <b>STOT - repeated exposure</b>                   | None known   |
| <b>Aspiration hazard</b>                          | No information available                                       |
| <b>Symptoms / effects, both acute and delayed</b> | No information available                                       |
| <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.

|                                      |   |
|--------------------------------------|---|
| <b>Persistence and Degradability</b> | Insoluble in water  |
| <b>Bioaccumulation/ Accumulation</b> | No information available.   |
| <b>Mobility</b>                      | Is not likely mobile in the environment due its low water solubility. |

## 13. Disposal considerations

|                               |   |
|-------------------------------|---|
| <b>Waste Disposal Methods</b> | 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>                | UN1557                          |
| <b>Proper Shipping Name</b> | ARSENIC COMPOUND, SOLID, N.O.S. |
| <b>Technical Name</b>       | (Chromium arsenide)             |
| <b>Hazard Class</b>         | 6.1                             |
| <b>Packing Group</b>        | II                              |

### TDG

|                             |                                 |
|-----------------------------|---------------------------------|
| <b>UN-No</b>                | UN1557                          |
| <b>Proper Shipping Name</b> | ARSENIC COMPOUND, SOLID, N.O.S. |
| <b>Hazard Class</b>         | 6.1                             |
| <b>Packing Group</b>        | II                              |

### IATA

|                             |                                 |
|-----------------------------|---------------------------------|
| <b>UN-No</b>                | UN1557                          |
| <b>Proper Shipping Name</b> | ARSENIC COMPOUND, SOLID, N.O.S. |
| <b>Hazard Class</b>         | 6.1                             |
| <b>Packing Group</b>        | II                              |

### IMDG/IMO

|                             |                                 |
|-----------------------------|---------------------------------|
| <b>UN-No</b>                | UN1557                          |
| <b>Proper Shipping Name</b> | ARSENIC COMPOUND, SOLID, N.O.S. |
| <b>Hazard Class</b>         | 6.1                             |
| <b>Packing Group</b>        | II                              |

## 15. Regulatory information

### International Inventories

| Component                              | CAS-No     | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS    | ELINCS | NLP |
|--|------------|-----|------|------|---|-----------|--------|-----|
| Chromium arsenide (Cr <sub>2</sub> As) | 12254-85-2 | -   | X    | X    | ACTIVE  | 235-499-6 | -      | -   |

| Component                 | CAS-No     | IECSC | KECL     | ENCS | ISHL | TCSI | AICS | NZIoC | PICCS |
|---------------------------|------------|-------|----------|------|------|------|------|-------|-------|
| Chromium arsenide (Cr2As) | 12254-85-2 | -     | KE-10228 | -    | -    | -    | -    | -     | -     |

**Legend:**

X - Listed '-' - Not Listed

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**IECSC** - Chinese Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**ENCS** - Japanese Existing and New Chemical Substances**AICS** - Australian Inventory of Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**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)).

| Component                 | Canada - National Pollutant Release Inventory (NPRI) | Canadian Environmental Protection Agency (CEPA) - List of Toxic Substances | Canada's Chemicals Management Plan (CEPA) |
|---------------------------|--|--|---|
| Chromium arsenide (Cr2As) | Part 1, Group B Substance Part 1, Group A Substance  |  |   |

**Other International Regulations****Authorisation/Restrictions according to EU REACH**

| Component                 | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances  | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---------------------------|---|--|---|
| Chromium arsenide (Cr2As) | -   | Use restricted. See item 19.<br>(see link for restriction details)<br>Use restricted. See item 75.<br>(see link for restriction details) | -   |

**REACH links**

<https://echa.europa.eu/substances-restricted-under-reach>

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

| Component                 | CAS-No     | OECD HPV       | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|---------------------------|------------|----------------|------------------------------|---------------------------|--|
| Chromium arsenide (Cr2As) | 12254-85-2 | Not applicable | Not applicable               | Not applicable            | Not applicable                             |

| Component                 | CAS-No     | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|---------------------------|------------|---|--|----------------------------|------------------------------------|
| Chromium arsenide (Cr2As) | 12254-85-2 | Not applicable  | Not applicable   | Not applicable             | Annex I - Y24                      |

## 16. Other information

**Prepared By**

Product Safety Department  
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[www.thermofisher.com](http://www.thermofisher.com)

|                         |  |
|-------------------------|--|
| <b>Revision Date</b>    | 30-March-2024                                      |
| <b>Print Date</b>       | 30-March-2024                                      |
| <b>Revision Summary</b> | New emergency telephone response service provider. |

**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**