

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2024

Reviewed on 07/08/2024

## 1 Identification

- **Product identifier**
- **Trade name:** Chromium powder
- **Article number:** 225060
- **CAS Number:**  
7440-47-3
- **EC number:**  
231-157-5
- **Application of the substance / the mixture** Laboratory chemicals for research and development
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
BeanTown Chemical  
9 Sagamore Park Road  
Hudson, NH 03051  
USA
- **Phone:** (603) 402-2234  
**Fax:** (603) 402-9713  
**Email:** technical@beantownchem.com  
www.beantownchem.com
- **Information department:** Technical Support Department
- **Emergency telephone number:**  
During normal operating hours, please call (603) 402-2234  
After hours, please call Chemtrec at (800) 424-9300

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

- 
- **Label elements**
  - **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**



GHS08

- **Signal word** Warning
- **Hazard-determining components of labeling:**  
chromium
- **Hazard statements**  
Suspected of causing cancer.
- **Precautionary statements**  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF exposed or concerned: Get medical advice/attention.  
Store locked up.

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Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
7440-47-3 chromium
- **Identification number(s)**
- **EC number:** 231-157-5

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**1.5 mg/m<sup>3</sup>· **PAC-2:**17 mg/m<sup>3</sup>

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· PAC-3:

99 mg/m<sup>3</sup>

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:**  
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

### 7440-47-3 chromium

|     |                                                                                               |
|-----|-----------------------------------------------------------------------------------------------|
| PEL | Long-term value: 1 mg/m <sup>3</sup>                                                          |
| REL | Long-term value: 0.5* mg/m <sup>3</sup><br>*metal+inorg.compds.as Cr; See Pocket Guide App. C |
| TLV | Long-term value: 0.003* 0.5** mg/m <sup>3</sup><br>inh. fraction, *as Cr(III), **metal        |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
Protective gloves  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye protection: Not required.

### 9 Physical and chemical properties

#### · Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

|                 |                 |
|-----------------|-----------------|
| Form:           | Powder          |
| Color:          | Not determined. |
| Odor:           | Characteristic  |
| Odor threshold: | Not determined. |

· pH-value: Not applicable.

##### · Change in condition

|                              |                      |
|------------------------------|----------------------|
| Melting point/Melting range: | 1,857 °C (35.357 °F) |
| Boiling point/Boiling range: | 2,672 °C (36.872 °F) |

· Flash point: Not applicable.

· Flammability (solid, gaseous): Product is not flammable.

· Decomposition temperature: Not determined.

· Auto igniting: Not determined.

· Danger of explosion: Product does not present an explosion hazard.

##### · Explosion limits:

|        |                 |
|--------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

· Vapor pressure at 20 °C (68 °F): 0 hPa

· Density at 20 °C (68 °F): 7.14 g/cm<sup>3</sup> (59.5833 lbs/gal)

|                  |                         |
|------------------|-------------------------|
| Bulk density:    | 3,300 kg/m <sup>3</sup> |
| Relative density | Not determined.         |
| Vapor density    | Not applicable.         |
| Evaporation rate | Not applicable.         |

##### · Solubility in / Miscibility with

Water: Insoluble.

· Partition coefficient (n-octanol/water): Not determined.

##### · Viscosity:

|              |                 |
|--------------|-----------------|
| Dynamic:     | Not applicable. |
| Kinematic:   | Not applicable. |
| VOC content: | 0.00 %          |

Solids content: 100.0 %

· Other information No further relevant information available.

### 10 Stability and reactivity

· Reactivity No further relevant information available.

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- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

|                                                             |
|-------------------------------------------------------------|
| · <b>IARC (International Agency for Research on Cancer)</b> |
| 3                                                           |

|                                            |
|--------------------------------------------|
| · <b>NTP (National Toxicology Program)</b> |
| Substance is not listed.                   |

|                                                                    |
|--------------------------------------------------------------------|
| · <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b> |
| Substance is not listed.                                           |

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |                                                                                   |                   |
|-----------------------------------------------------------------------------------|-------------------|
| · <b>UN-Number</b>                                                                |                   |
| · <b>DOT, ADN, IMDG, IATA</b>                                                     | not regulated     |
| · <b>UN proper shipping name</b>                                                  |                   |
| · <b>DOT, ADN, IMDG, IATA</b>                                                     | not regulated     |
| · <b>Transport hazard class(es)</b>                                               |                   |
| · <b>DOT, ADN, IMDG, IATA</b>                                                     |                   |
| · <b>Class</b>                                                                    | not regulated     |
| · <b>Packing group</b>                                                            |                   |
| · <b>DOT, IMDG, IATA</b>                                                          | not regulated     |
| · <b>Environmental hazards:</b>                                                   |                   |
| · <b>Marine pollutant:</b>                                                        | No                |
| · <b>Special precautions for user</b>                                             | Not applicable.   |
| · <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not applicable.   |
| · <b>Transport/Additional information:</b>                                        |                   |
| · <b>DOT</b>                                                                      |                   |
| · <b>Hazardous substance:</b>                                                     | 5000 lbs, 2270 kg |
| · <b>UN "Model Regulation":</b>                                                   | not regulated     |

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **Sara**

### · Section 355 (extremely hazardous substances):

Substance is not listed.

### · Section 313 (Specific toxic chemical listings):

Substance is listed.

### · TSCA (Toxic Substances Control Act):

ACTIVE

### · Hazardous Air Pollutants

Substance is not listed.

### · Proposition 65

### · Chemicals known to cause cancer:

Substance is not listed.

### · Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

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**· Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

**· Chemicals known to cause developmental toxicity:**

Substance is not listed.

**· Carcinogenic categories**
**· EPA (Environmental Protection Agency)**

D

**· TLV (Threshold Limit Value)**

A4

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

**· RTECS**

Substance is not listed.

**· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**· NFPA ratings (scale 0-4)**

Health = 0

Fire = 0

Reactivity = 0

**· HMIS ratings (scale 0-4)**

Health = 0

Fire = 0

Reactivity = 0

**· Department issuing SDS: Technical Support Department**
**· Contact: Technical Support Department**
**· Date of preparation / last revision 07/09/2024 / -**
**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Carc. 2: Carcinogenicity – Category 2