

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/23/2020

Reviewed on 05/23/2020

## 1 Identification

- **Product identifier**
- **Trade name:** Cadmium 1000 µg/g in Mineral Oil
- **Article number:** CDOMS
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
High-Purity Standards  
7221 Investment Drive, North Charleston, SC 29418 United States  
Telephone: +1-843-767-7900  
Fax: +1-843-767-7906  
highpuritystandards.com  
Email: info@highpuritystandards.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
INFOTRAC  
Emergency telephone numbers 1-800-535-5053  
Other emergency telephone numbers 1-352-323-3500

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 1B H350 May cause cancer.  
Repr. 2 H361 Suspected of damaging fertility or the unborn child.  
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

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



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
White mineral oil, petroleum  
cadmium
- **Hazard statements**  
H350 May cause cancer.  
H361 Suspected of damaging fertility or the unborn child.  
H304 May be fatal if swallowed and enters airways.

(Contd. on page 2)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/23/2020

Reviewed on 05/23/2020

**Trade name: Cadmium 1000 µg/g in Mineral Oil**

(Contd. of page 1)

· **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 swallowed: Immediately call a poison center/doctor.
- Do NOT induce vomiting.
- IF exposed or concerned: Get medical advice/attention.
- Store locked up.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**3 Composition/information on ingredients**

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

|           |                              |       |
|-----------|------------------------------|-------|
| 8042-47-5 | White mineral oil, petroleum | 99.9% |
| 7440-43-9 | cadmium                      | 0.1%  |

**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.

(Contd. on page 3)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/23/2020

Reviewed on 05/23/2020

**Trade name: Cadmium 1000 µg/g in Mineral Oil**

(Contd. of page 2)

- **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:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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:**

|           |         |                        |
|-----------|---------|------------------------|
| 7440-43-9 | cadmium | 0.10 mg/m <sup>3</sup> |
|-----------|---------|------------------------|

· **PAC-2:**

|           |         |                        |
|-----------|---------|------------------------|
| 7440-43-9 | cadmium | 0.76 mg/m <sup>3</sup> |
|-----------|---------|------------------------|

· **PAC-3:**

|           |         |                       |
|-----------|---------|-----------------------|
| 7440-43-9 | cadmium | 4.7 mg/m <sup>3</sup> |
|-----------|---------|-----------------------|

**7 Handling and storage**

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.

(Contd. on page 4)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/23/2020

Reviewed on 05/23/2020

**Trade name: Cadmium 1000 µg/g in Mineral Oil**

(Contd. of page 3)

- **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:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.  
At this time, the remaining constituent has no known exposure limits.

**7440-43-9 cadmium**

|     |  |
|-----|--|
| PEL | Long-term value: 0.005 mg/m <sup>3</sup><br>as Cd; see 29 CFR 1910.1027            |
| REL | See Pocket Guide App. A  |
| TLV | Long-term value: 0.01 0.002* mg/m <sup>3</sup><br>as Cd; *respirable fraction; BEI |

· **Ingredients with biological limit values:**

**7440-43-9 cadmium**

|     |   |
|-----|---|
| BEI | 5 µg/g creatinine<br>Medium: urine<br>Time: not critical<br>Parameter: Cadmium (background) |
|     | 5 µg/L<br>Medium: blood<br>Time: not critical<br>Parameter: Cadmium (background)            |

- **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:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

(Contd. on page 5)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/23/2020

Reviewed on 05/23/2020

**Trade name: Cadmium 1000 µg/g in Mineral Oil**

(Contd. of page 4)

· **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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.

· **Eye protection:**



Tightly sealed goggles

**9 Physical and chemical properties**

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

· **General Information**

· **Appearance:**

|                          |                 |
|--------------------------|-----------------|
| · <b>Form:</b>           | Liquid          |
| · <b>Color:</b>          | colorless       |
| · <b>Odor:</b>           | Characteristic  |
| · <b>Odor threshold:</b> | Not determined. |

· **pH-value:** Not determined.

· **Change in condition**

|                                       |               |
|---------------------------------------|---------------|
| · <b>Melting point/Melting range:</b> | Undetermined. |
| · <b>Boiling point/Boiling range:</b> | Undetermined. |

· **Flash point:** >112 °C (>233.6 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

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

(Contd. on page 6)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/23/2020

Reviewed on 05/23/2020

**Trade name: Cadmium 1000 µg/g in Mineral Oil**

(Contd. of page 5)

|   |  |
|---|--|
| · <b>Explosion limits:</b>                        |  |
| <b>Lower:</b>                                     | Not determined.                            |
| <b>Upper:</b>                                     | Not determined.                            |
| · <b>Vapor pressure:</b>                          | Not determined.                            |
| · <b>Density:</b>                                 | Not determined.                            |
| · <b>Relative density</b>                         | Not determined.                            |
| · <b>Vapor density</b>                            | Not determined.                            |
| · <b>Evaporation rate</b>                         | Not determined.                            |
| · <b>Solubility in / Miscibility with Water:</b>  | Fully miscible.                            |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b>                               |  |
| <b>Dynamic:</b>                                   | Not determined.                            |
| <b>Kinematic:</b>                                 | Not determined.                            |
| · <b>Solvent content:</b>                         |  |
| <b>VOC content:</b>                               | 0.00 %<br>0.0 g/l / 0.00 lb/gal            |
| <b>Solids content:</b>                            | 0.1 %                                      |
| · <b>Other information</b>                        | No further relevant information available. |

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **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:**

|   |      |                 |
|---|------|-----------------|
| · <b>LD/LC50 values that are relevant for classification:</b> |      |                 |
| 7440-43-9 cadmium   |      |                 |
| Oral  | LD50 | 225 mg/kg (rat) |

- **Primary irritant effect:**
- **on the skin:** No irritant effect.

(Contd. on page 7)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/23/2020

Reviewed on 05/23/2020

**Trade name: Cadmium 1000 µg/g in Mineral Oil**

(Contd. of page 6)

- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

|           |         |   |
|-----------|---------|---|
| 7440-43-9 | cadmium | I |
|-----------|---------|---|

- **NTP (National Toxicology Program)**

|           |         |   |
|-----------|---------|---|
| 7440-43-9 | cadmium | K |
|-----------|---------|---|

- **OSHA-Ca (Occupational Safety & Health Administration)**

|           |         |  |
|-----------|---------|--|
| 7440-43-9 | cadmium |  |
|-----------|---------|--|

## 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:**  
Water hazard class 3 (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.
- **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.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/23/2020

Reviewed on 05/23/2020

Trade name: Cadmium 1000 µg/g in Mineral Oil

(Contd. of page 7)

**14 Transport information**

|   |                 |
|---|-----------------|
| · <b>UN-Number</b><br>· <b>DOT, ADR, IMDG, IATA</b>   | not regulated   |
| · <b>UN proper shipping name</b><br>· <b>DOT, ADR, IMDG, IATA</b>                           | not regulated   |
| · <b>Transport hazard class(es)</b><br>· <b>DOT, ADR, ADN, IMDG, IATA</b><br>· <b>Class</b> | not regulated   |
| · <b>Packing group</b><br>· <b>DOT, ADR, IMDG, IATA</b>                                     | not regulated   |
| · <b>Environmental hazards:</b>   | Not applicable. |
| · <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>UN "Model Regulation":</b>   | not regulated   |

**15 Regulatory information**

|  |
|--|
| · <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b><br>· <b>Sara</b> |
| · <b>Section 355 (extremely hazardous substances):</b><br>None of the ingredients is listed.                             |
| · <b>Section 313 (Specific toxic chemical listings):</b><br>7440-43-9   cadmium  |
| · <b>TSCA (Toxic Substances Control Act):</b><br>All components have the value ACTIVE.                                   |
| · <b>Hazardous Air Pollutants</b><br>None of the ingredients is listed.  |
| · <b>Proposition 65</b>  |
| · <b>Chemicals known to cause cancer:</b><br>7440-43-9   cadmium   |
| · <b>Chemicals known to cause reproductive toxicity for females:</b><br>None of the ingredients is listed.               |
| · <b>Chemicals known to cause reproductive toxicity for males:</b><br>7440-43-9   cadmium                                |

(Contd. on page 9)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/23/2020

Reviewed on 05/23/2020

**Trade name: Cadmium 1000 µg/g in Mineral Oil**

(Contd. of page 8)

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

|           |         |
|-----------|---------|
| 7440-43-9 | cadmium |
|-----------|---------|

**· Carcinogenic categories**

**· EPA (Environmental Protection Agency)**

|           |         |    |
|-----------|---------|----|
| 7440-43-9 | cadmium | B1 |
|-----------|---------|----|

**· TLV (Threshold Limit Value established by ACGIH)**

|           |         |    |
|-----------|---------|----|
| 7440-43-9 | cadmium | A2 |
|-----------|---------|----|

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

|           |         |
|-----------|---------|
| 7440-43-9 | cadmium |
|-----------|---------|

**· GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**· Hazard pictograms**



GHS08

**· Signal word** *Danger*

**· Hazard-determining components of labeling:**

*White mineral oil, petroleum  
cadmium*

**· Hazard statements**

*H350 May cause cancer.  
H361 Suspected of damaging fertility or the unborn child.  
H304 May be fatal if swallowed and enters airways.*

**· 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 swallowed: Immediately call a poison center/doctor.  
Do NOT induce vomiting.  
IF exposed or concerned: Get medical advice/attention.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

**· National regulations:**

**· Information about limitation of use:**

*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.  
Exceptions can be made by the authorities in certain cases.*

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

**Safety Data Sheet**  
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**Trade name: Cadmium 1000 µg/g in Mineral Oil**

(Contd. of page 9)

### 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.*

· **Department issuing SDS:** Environment protection department.

· **Contact:**

High-Purity Standards

Tel: 843-767-7900

Fax: 843-767-7906

· **Date of preparation / last revision** 05/23/2020 / -

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport 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*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*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*

*BEI: Biological Exposure Limit*

*Carc. 1B: Carcinogenicity – Category 1B*

*Repr. 2: Reproductive toxicity – Category 2*

*Asp. Tox. 1: Aspiration hazard – Category 1*