

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

### 1.1. Product identifier

|                           |                     |
|---------------------------|---------------------|
| Product Description:      | <b>Cadmium shot</b> |
| Cat No. :                 | <b>35483</b>        |
| Index No                  | 048-002-00-0        |
| CAS No                    | 7440-43-9           |
| EC No                     | 231-152-8           |
| Molecular Formula         | Cd                  |
| REACH registration number | -                   |

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

|                      |                          |
|----------------------|--------------------------|
| Recommended Use      | Laboratory chemicals.    |
| Uses advised against | No Information available |

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

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

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

### 1.4. 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

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567**

#### Physical hazards

Based on available data, the classification criteria are not met

#### Health hazards

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Acute Inhalation Toxicity - Dusts and Mists  
Germ Cell Mutagenicity  
Carcinogenicity  
Reproductive Toxicity  
Specific target organ toxicity - (repeated exposure)

Category 2 (H330)  
Category 2 (H341)  
Category 1B (H350)  
Category 2 (H361fd)  
Category 1 (H372)

## Environmental hazards

Acute aquatic toxicity  
Chronic aquatic toxicity

Category 1 (H400)  
Category 1 (H410)

Full text of Hazard Statements: see section 16

## 2.2. Label elements



Signal Word

Danger

## Hazard Statements

H330 - Fatal if inhaled  
H341 - Suspected of causing genetic defects  
H350 - May cause cancer  
H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child  
H372 - Causes damage to organs through prolonged or repeated exposure  
H410 - Very toxic to aquatic life with long lasting effects  
May form combustible dust concentrations in air

## Precautionary Statements

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P310 - Immediately call a POISON CENTER or doctor/physician  
P280 - Wear protective gloves/protective clothing/eye protection/face protection

## Additional EU labelling

Restricted to professional users

## 2.3. Other hazards

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment

May form explosible dust-air mixture if dispersed  
Toxicity to Soil Dwelling Organisms  
Toxic to terrestrial vertebrates  
This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

| Component | CAS No    | EC No             | Weight % | CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567 |
|-----------|-----------|-------------------|----------|---|
| Cadmium   | 7440-43-9 | EEC No. 231-152-8 | 100      | Acute Tox. 2 (H330)   |

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|  |  |  |  |   |
|--|--|--|--|---|
|  |  |  |  | Muta. 2 (H341)<br>Carc. 1B (H350)<br>Repr. 2 (H361fd)<br>STOT RE 1 (H372)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410) |
|--|--|--|--|---|

| Component | Specific concentration limits (SCL's) | M-Factor | Component notes |
|-----------|---------------------------------------|----------|-----------------|
| Cadmium   | -                                     | 10       | -               |

|                                  |   |
|----------------------------------|---|
| <b>REACH registration number</b> | - |
|----------------------------------|---|

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of 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>                        | 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.   |
| <b>Skin Contact</b>                       | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.  |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Call a physician or poison control center immediately.   |
| <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>Self-Protection of the First Aider</b> | Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.   |

### 4.2. Most important symptoms and effects, both acute and delayed

None reasonably foreseeable. Kidney disorders: May cause harm to the unborn child:  
Blood disorders

### 4.3. Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

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

No information available.

### 5.2. Special hazards arising from the substance or mixture

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Thermal decomposition can lead to release of irritating gases and vapors. Fine dust dispersed in air may ignite. Dust can form an explosive mixture with air. Pyrophoric properties of solids and liquids. Do not allow run-off from fire-fighting to enter drains or water courses.

## **Hazardous Combustion Products**

Toxic fumes.

### **5.3. Advice 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.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures**

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.

### **6.2. 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.

### **6.3. Methods and material for containment and cleaning up**

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

### **6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe 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.

#### **Hygiene Measures**

When using do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes or clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

### **7.2. Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place. Store under an inert atmosphere.

**Technical Rules for Hazardous Substances (TRGS) 510**  
**Storage Class (LGK) (Germany)**

Class 6.1B

### **7.3. Specific end use(s)**

Use in laboratories

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE** - 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC

| Component | The United Kingdom   | European Union                    | Ireland   |
|-----------|--|-----------------------------------|---|
| Cadmium   | STEL: 0.075 mg/m <sup>3</sup> 15 min<br>TWA: 0.025 mg/m <sup>3</sup> 8 hr<br>Carc. metal | TWA: 0.001 mg/m <sup>3</sup> (8h) | TWA: 0.001 mg/m <sup>3</sup> 8 hr. inhalable fraction<br>TWA: 0.004 mg/m <sup>3</sup> 8 hr. limit value 0.004 mg/m <sup>3</sup> until 11 July 2027 inhalable fraction<br>STEL: 0.003 mg/m <sup>3</sup> 15 min<br>STEL: 0.012 mg/m <sup>3</sup> 15 min |

#### Biological limit values

List source(s):

#### Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

| Component                    | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|------------------------------|----------------------------------|-------------------------------------|------------------------------------|---------------------------------------|
| Cadmium<br>7440-43-9 ( 100 ) |                                  |                                     | DNEL = 4µg/m <sup>3</sup>          |                                       |

#### Predicted No Effect Concentration (PNEC)

See values below.

| Component                    | Fresh water     | Fresh water sediment        | Water Intermittent | Microorganisms in sewage treatment | Soil (Agriculture)      |
|------------------------------|-----------------|-----------------------------|--------------------|------------------------------------|-------------------------|
| Cadmium<br>7440-43-9 ( 100 ) | PNEC = 0.19µg/L | PNEC = 1.8mg/kg sediment dw |                    | PNEC = 20µg/L                      | PNEC = 0.9mg/kg soil dw |

| Component                    | Marine water    | Marine water sediment        | Marine water intermittent | Food chain            | Air |
|------------------------------|-----------------|------------------------------|---------------------------|-----------------------|-----|
| Cadmium<br>7440-43-9 ( 100 ) | PNEC = 1.14µg/L | PNEC = 0.64mg/kg sediment dw |                           | PNEC = 0.16mg/kg food |     |

### 8.2. Exposure controls

#### 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** 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 | -               |             | (minimum requirement) |

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|                                   |                 |        |
|-----------------------------------|-----------------|--------|
| Nitrile rubber<br>Neoprene<br>PVC | recommendations | EN 374 |
|-----------------------------------|-----------------|--------|

**Skin and body protection** Long sleeved clothing.

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 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.

Remove gloves with care avoiding skin contamination.

## 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

## Small scale/Laboratory use

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.

**Recommended half mask:-** Particle filtering: EN149:2001

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

## Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

|  |                          |  |
|--|--------------------------|--|
| <b>Physical State</b>                          | Solid                    |  |
| <b>Appearance</b>                              | Silver                   |  |
| <b>Odor</b>                                    | Odorless                 |  |
| <b>Odor Threshold</b>                          | No data available        |  |
| <b>Melting Point/Range</b>                     | 321 °C / 609.8 °F        |  |
| <b>Softening Point</b>                         | No data available        |  |
| <b>Boiling Point/Range</b>                     | 765 °C / 1409 °F         | @ 760 mmHg                               |
| <b>Flammability (liquid)</b>                   | Not applicable           | Solid                                    |
| <b>Flammability (solid,gas)</b>                | No information available |  |
| <b>Explosion Limits</b>                        | No data available        |  |
| <b>Flash Point</b>                             | No information available | <b>Method -</b> No information available |
| <b>Autoignition Temperature</b>                | No data available        |  |
| <b>Decomposition Temperature</b>               | No data available        |  |
| <b>pH</b>                                      | No information available |  |
| <b>Viscosity</b>                               | Not applicable           | Solid                                    |
| <b>Water Solubility</b>                        | Insoluble                |  |
| <b>Solubility in other solvents</b>            | No information available |  |
| <b>Partition Coefficient (n-octanol/water)</b> |                          |  |
| <b>Vapor Pressure</b>                          | No information available |  |
| <b>Density / Specific Gravity</b>              | 8.64 @ 25°C              |  |
| <b>Bulk Density</b>                            | No data available        |  |
| <b>Vapor Density</b>                           | Not applicable           | Solid                                    |
| <b>Particle characteristics</b>                | No data available        |  |

### 9.2. Other information

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Molecular Formula Cd  
Molecular Weight 112.40  
Evaporation Rate Not applicable - Solid

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity** Yes

**10.2. Chemical stability** Stable under recommended storage conditions. Moisture sensitive. Air sensitive.

**10.3. Possibility of hazardous reactions**

**Hazardous Polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions** None under normal processing.

**10.4. Conditions to avoid** Incompatible products. Excess heat. Avoid dust formation. Exposure to air or moisture over prolonged periods.

**10.5. Incompatible materials** Strong oxidizing agents. Strong acids. Sulfur oxides.

**10.6. Hazardous decomposition products** Toxic fumes.

## SECTION 11: TOXICOLOGICAL INFORMATION

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

### Product Information

**(a) acute toxicity;**  
**Oral** Based on available data, the classification criteria are not met  
**Dermal** No data available  
**Inhalation** Category 2

| Component | LD50 Oral                 | LD50 Dermal | LC50 Inhalation                            |
|-----------|---------------------------|-------------|--|
| Cadmium   | LD50 = 2330 mg/kg ( Rat ) | -           | LC50 = 25 mg/m <sup>3</sup> ( Rat ) 30 min |

**(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** No data available

**(e) germ cell mutagenicity;** Category 2  
Possible risk of irreversible effects

**(f) carcinogenicity;** Category 1B  
The table below indicates whether each agency has listed any ingredient as a carcinogen

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| Component | EU           | UK | Germany | IARC    |
|-----------|--------------|----|---------|---------|
| Cadmium   | Carc Cat. 1B |    | Cat. 1  | Group 1 |

**(g) reproductive toxicity;  
Reproductive Effects**                      Category 2  
Possible risk of impaired fertility. May cause harm to the unborn child.

**(h) STOT-single exposure;**                      No data available

**(i) STOT-repeated exposure;**                      Category 1  
  
**Target Organs**                                      Blood, Respiratory system, Kidney, Prostate.

**(j) aspiration hazard;**                              Not applicable  
Solid

**Symptoms / effects, both acute and delayed**                      Kidney disorders. May cause harm to the unborn child. Blood disorders.

**11.2. Information on other hazards**

**Endocrine Disrupting Properties**                      Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity**

**Ecotoxicity effects**                                      The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| Component | Freshwater Fish  | Water Flea                                      | Freshwater Algae |
|-----------|--|---|------------------|
| Cadmium   | LC50: 0.0004 - 0.003 mg/L, 96h (Pimephales promelas)<br>LC50: = 0.016 mg/L, 96h (Oryzias latipes)<br>LC50: = 21.1 mg/L, 96h flow-through (Lepomis macrochirus)<br>LC50: = 0.24 mg/L, 96h static (Cyprinus carpio)<br>LC50: = 4.26 mg/L, 96h semi-static (Cyprinus carpio)<br>LC50: = 0.002 mg/L, 96h (Cyprinus carpio)<br>LC50: = 0.006 mg/L, 96h static (Oncorhynchus mykiss)<br>LC50: = 0.003 mg/L, 96h flow-through (Oncorhynchus mykiss) | EC50: = 0.0244 mg/L, 48h Static (Daphnia magna) |                  |

| Component | Microtox | M-Factor |
|-----------|----------|----------|
| Cadmium   |          | 10       |

**12.2. Persistence and degradability**

**Persistence**    Insoluble in water.  
**Degradability**    Not relevant for inorganic substances.  
**Degradation in sewage treatment plant**                                      Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.



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|  |  |
|--|--|
| <b><u>12.3. Bioaccumulative potential</u></b>  | May have some potential to bioaccumulate   |
| <b><u>12.4. Mobility in soil</u></b>   | Spillage unlikely to penetrate soil. Is not likely mobile in the environment due its low water solubility.                       |
| <b><u>12.5. Results of PBT and vPvB assessment</u></b>   | In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment.                           |
| <b><u>12.6. Endocrine disrupting properties</u></b><br>Endocrine Disruptor Information                 | This product does not contain any known or suspected endocrine disruptors  |
| <b><u>12.7. Other adverse effects</u></b><br>Persistent Organic Pollutant<br>Ozone Depletion Potential | This product does not contain any known or suspected substance<br>This product does not contain any known or suspected substance |

## SECTION 13: DISPOSAL CONSIDERATIONS

|   |   |
|---|---|
| <b><u>13.1. Waste treatment methods</u></b> |   |
| <b>Waste from Residues/Unused Products</b>  | 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. |
| <b>Contaminated Packaging</b>               | Dispose of this container to hazardous or special waste collection point.   |
| <b>European Waste Catalogue (EWC)</b>       | According to the European Waste Catalog, Waste Codes are not product specific, but application specific.  |
| <b>Other Information</b>                    | 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

|  |               |
|--|---------------|
| <b><u>IMDG/IMO</u></b>                         | Not regulated |
| <b><u>14.1. UN number</u></b>                  |               |
| <b><u>14.2. UN proper shipping name</u></b>    |               |
| <b><u>14.3. Transport hazard class(es)</u></b> |               |
| <b><u>14.4. Packing group</u></b>              |               |
| <b><u>ADR</u></b>                              | Not regulated |
| <b><u>14.1. UN number</u></b>                  |               |
| <b><u>14.2. UN proper shipping name</u></b>    |               |
| <b><u>14.3. Transport hazard class(es)</u></b> |               |
| <b><u>14.4. Packing group</u></b>              |               |
| <b><u>IATA</u></b>                             | Not regulated |
| <b><u>14.1. UN number</u></b>                  |               |
| <b><u>14.2. UN proper shipping name</u></b>    |               |

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**14.3. Transport hazard class(es)**

**14.4. Packing group**

**14.5. Environmental hazards**

Dangerous for the environment  
Product is a marine pollutant according to the criteria set by IMDG/IMO

**14.6. Special precautions for user**

No special precautions required.

**14.7. Maritime transport in bulk according to IMO instruments**

Not applicable, packaged goods

**SECTION 15: REGULATORY INFORMATION**

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

**International Inventories**

China, X = listed, Australia, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component | CAS No    | EINECS    | ELINCS | NLP | IECSC | TCSI | KECL     | ENCS | ISHL |
|-----------|-----------|-----------|--------|-----|-------|------|----------|------|------|
| Cadmium   | 7440-43-9 | 231-152-8 | -      | -   | X     | X    | KE-04397 | X    | -    |

| Component | CAS No    | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|-----------|-----------|------|---|-----|------|------|-------|-------|
| Cadmium   | 7440-43-9 | X    | ACTIVE  | X   | -    | X    | X     | X     |

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**Authorisation/Restrictions according to EU REACH**

| Component | CAS No    | 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)   |
|-----------|-----------|---|--|---|
| Cadmium   | 7440-43-9 | -   | Use restricted. See item 72. (see link for restriction details)<br>Use restricted. See item 23. (see link for restriction details)<br>Use restricted. See item 28. (see link for restriction details)<br>Use restricted. See item 75. (see link for restriction details) | SVHC Candidate list - 231-152-8 - Carcinogenic, Article 57a; Specific target organ toxicity after repeated exposure, Article 57(f) - human health |

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

**REACH links**

<https://echa.europa.eu/authorisation-list>  
<https://echa.europa.eu/substances-restricted-under-reach>  
<https://echa.europa.eu/candidate-list-table>

**Seveso III Directive (2012/18/EC)**

| Component | CAS No | Seveso III Directive (2012/18/EC) - | Seveso III Directive (2012/18/EC) - |
|-----------|--------|-------------------------------------|-------------------------------------|
|           |        |                                     |                                     |

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|         |           | Qualifying Quantities for Major Accident Notification | Qualifying Quantities for Safety Report Requirements |
|---------|-----------|---|--|
| Cadmium | 7440-43-9 | Not applicable  | Not applicable                                       |

**Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals**

| Component                    | ANNEX I - PART 1<br>List of chemicals subject to export notification procedure (referred to in Article 8)  | ANNEX I - PART 2<br>List of chemicals qualifying for PIC notification (referred to in Article 11) | ANNEX I - PART 3<br>List of chemicals subject to the PIC procedure (referred to in Articles 13 and 14) |
|------------------------------|--|---|--|
| Cadmium<br>7440-43-9 ( 100 ) | i(1) — industrial chemical for professional use<br>sr — severe restriction<br><br>i(2) — industrial chemical for public<br>sr — severe restriction | i — industrial chemical<br>sr — severe restriction  | -  |

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0649&qid=1604065742303>.

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

## National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

## WGK Classification

See table for values

| Component | Germany - Water Classification (AwSV) | Germany - TA-Luft Class  |
|-----------|---------------------------------------|--|
| Cadmium   | WGK3                                  | Krebserzeugende Stoffe - Class I : 0.05 mg/m <sup>3</sup><br>(Massenkonzentration) |

| Component | France - INRS (Tables of occupational diseases)               |
|-----------|---|
| Cadmium   | Tableaux des maladies professionnelles (TMP) - RG 61,RG 61bis |

| Component                    | Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81) | Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC) | Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure |
|------------------------------|--|---|---|
| Cadmium<br>7440-43-9 ( 100 ) | Prohibited and Restricted Substances   |   | Annex I - industrial chemical   |

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

## SECTION 16: OTHER INFORMATION

# SAFETY DATA SHEET

Cadmium shot

Revision Date 25-Jan-2024

## Full text of H-Statements referred to under sections 2 and 3

H330 - Fatal if inhaled

H341 - Suspected of causing genetic defects

H350 - May cause cancer

H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child

H372 - Causes damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

## 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/NDSL** - 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 Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

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

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

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

### **Key literature references and sources for data**

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

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

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

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### **Training Advice**

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.

Chemical incident response training.

**Prepared By**

Health, Safety and Environmental Department

**Revision Date**

25-Jan-2024

**Revision Summary**

New emergency telephone response service provider.

**This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.**

### **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 Safety Data Sheet**