

## Safety Data Sheet



## Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

### 1.1 Product identifier

|                          |  |
|--------------------------|--|
| <b>Product Name</b>      | • <b>Cadmium Tungstate Scintillation Crystal</b>   |
| <b>Synonyms</b>          | • Cadmium Tungstate                                |
| <b>CAS Number</b>        | • 7790-85-4  |
| <b>EC Number</b>         | • 232-226-2  |
| <b>Chemical Category</b> | • Cadmium Compounds, Tungsten, insoluble compounds |
| <b>Molecular Formula</b> | • CdWO <sub>4</sub>                                |

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

|                                   |                       |
|-----------------------------------|-----------------------|
| <b>Relevant identified use(s)</b> | • Radiation detection |
|-----------------------------------|-----------------------|

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

|                     |  |
|---------------------|--|
| <b>Manufacturer</b> | • Saint-Gobain Crystals<br>Sy. No. 171/2, Maruthi Ind Estate<br>Hoody Rajapalya, Whitefield Main Rd.<br>Bangalore - 560 048 Karnataka, INDIA<br>india.scintillation@saint-gobain.com |
|---------------------|--|

**Telephone (General)** • 91 80 4246 8989

### 1.4 Emergency telephone number

|                     |                               |
|---------------------|-------------------------------|
| <b>Manufacturer</b> | • 1-800-424-9300 - ChemTrec   |
| <b>Manufacturer</b> | • 703-525-3887 - Outside U.S. |

## Section 2: Hazards Identification

### EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

### 2.1 Classification of the substance or mixture

|            |   |
|------------|---|
| <b>CLP</b> | • Acute Toxicity Oral 4 - H302<br>Acute Toxicity Dermal 4 - H312<br>Skin Irritation 2 - H315<br>Eye Irritation 2 - H319<br>Acute Toxicity Inhalation 4 - H332<br>Carcinogenicity 1 - H350 |
|------------|---|

Hazardous to the aquatic environment Acute 1 - H400  
 Hazardous to the aquatic environment Chronic 1 - H410  
 Due to formed nature of this product, no airborne concentrations are expected.

DSD/DPD

- Harmful (Xn)  
 Dangerous to the Environment (N)  
 R20/21/22, R50, R53

## 2.2 Label Elements

CLP

### DANGER



- Hazard statements**
- H302 - Harmful if swallowed
  - H312 - Harmful in contact with skin
  - H315 - Causes skin irritation
  - H319 - Causes serious eye irritation
  - H332 - Harmful if inhaled
  - H350 - May cause cancer.
  - H400 - Very toxic to aquatic life
  - H410 - Very toxic to aquatic life with long lasting effects

### Precautionary statements

- Prevention**
- P201 - Obtain special instructions before use.
  - P202 - Do not handle until all safety precautions have been read and understood.
  - P261 - Avoid breathing dust.
  - P264 - Wash thoroughly after handling.
  - P270 - Do not eat, drink or smoke when using this product.
  - P271 - Use only outdoors or in a well-ventilated area.
  - P273 - Avoid release to the environment.
  - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
  - P281 - Use personal protective equipment as required.
- Response**
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  - P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
  - P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
  - P362 - Take off contaminated clothing and wash before reuse.
  - P322 - Specific measures, see supplemental first aid information.
  - P332+P313 - If skin irritation occurs: Get medical advice/attention.
  - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P337+P313 - If eye irritation persists: Get medical advice/attention.
  - P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
  - P330 - Rinse mouth.
  - P391 - Collect spillage.
  - P308+P313 - IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal**
- P405 - Store locked up.
  - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases**
- R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
  - R50 - Very toxic to aquatic organisms.
  - R53 - May cause long-term adverse effects in the aquatic environment.

- Safety phrases**
- S57 - Use appropriate containment to avoid environmental contamination.

## 2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- This product is considered dangerous according to the European Directive 67/548/EEC.

## United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

### 2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Skin Irritation 2
  - Eye Irritation 2
  - Carcinogenicity 1
  - Specific Target Organ Toxicity Repeated Exposure 1
- Due to formed nature of this product, no airborne concentrations are expected.

### 2.2 Label elements

OSHA HCS 2012

#### DANGER



- Hazard statements**
- Causes skin irritation
  - Causes serious eye irritation
  - May cause cancer.
  - Causes damage to organs - Lungs (Inhl), Kidneys through prolonged or repeated exposure

#### Precautionary statements

- Prevention**
- Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Do not breathe dust.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Wear protective gloves/protective clothing/eye protection/face protection.
- Response**
- If on skin: Wash with plenty of water.
  - Take off contaminated clothing and wash before reuse.
  - If skin irritation occurs: Get medical advice/attention.
  - Specific treatment, see supplemental first aid information.
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - If eye irritation persists: Get medical advice/attention.
  - IF exposed or concerned: Get medical advice/attention.
  - Get medical advice/attention if you feel unwell.
- Storage/Disposal**
- Store locked up.
  - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## 2.3 Other hazards

- OSHA HCS 2012**
- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

## Canada

According to: WHMIS

### 2.1 Classification of the substance or mixture

**WHMIS**

- Other Toxic Effects - D2A  
Other Toxic Effects - D2B  
Due to formed nature of this product, no airborne concentrations are expected.

**2.2 Label elements****WHMIS****WHMIS**

- Other Toxic Effects - D2A  
Other Toxic Effects - D2B

**2.3 Other hazards****WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

**Section 3 - Composition/Information on Ingredients****3.1 Substances**

| Composition            |                                   |      |           |  |          |
|------------------------|-----------------------------------|------|-----------|--|----------|
| Chemical Name          | Identifiers                       | %    | LD50/LC50 | Classifications According to Regulation/Directive  | Comments |
| Cadmium tungsten oxide | CAS:7790-85-4<br>EINECS:232-226-2 | 100% | NDA       | EU DSD/DPD: Annex VI, Table 3.2 (Cadmium compounds): Xn; R20/21/22; N; R50-53<br>EU CLP: Annex VI, Table 3.1 (Cadmium compounds): Acute Tox. 4 *, H332; Acute Tox. 4 *, H312; Acute Tox. 4 *, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410<br>OSHA HCS 2012: STOT RE 1 (Lungs, Inhl, Kidney); Carc. 1; Skin Irrit. 2; Eye Irrit. 2 | NDA      |

**3.2 Mixtures**

- Material does not meet the criteria of a mixture in accordance with Regulation (EC) No 1272/2008.

**Section 4 - First Aid Measures****4.1 Description of first aid measures****Inhalation**

- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Get medical attention.

**Skin**

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If skin irritation occurs: Get medical advice/attention.

**Eye**

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

**Ingestion**

- Rinse mouth. Do not give anything by mouth to an unconscious person. If large quantities are swallowed, call a physician immediately.

**4.2 Most important symptoms and effects, both acute and delayed**

- Refer to Section 11 - Toxicological Information.

**4.3 Indication of any immediate medical attention and special treatment needed****Notes to Physician**

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials

other than this product may have occurred.

## Section 5 - Firefighting Measures

### 5.1 Extinguishing media

**Suitable Extinguishing Media** • Use water, carbon dioxide or foam.

**Unsuitable Extinguishing Media** • No data available.

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

**Unusual Fire and Explosion Hazards** • Material is non-combustible and is not expected to pose a fire or explosion hazard.

**Hazardous Combustion Products** • No data available

### 5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

## Section 6 - Accidental Release Measures

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

**Personal Precautions** • Ventilate the area. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Emergency Procedures** • As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. Keep unauthorized personnel away.

### 6.2 Environmental precautions

- Avoid release to the environment.

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

**Containment/Clean-up Measures** • Avoid generating dust.  
SMALL DRY SPILLS: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.  
LARGE SPILLS: Cover powder spill with plastic sheet or tarp to minimize spreading.

### 6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## Section 7 - Handling and Storage

### 7.1 Precautions for safe handling

**Handling** • Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Avoid contact with skin, eyes or clothing. Do not breathe dust. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

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

**Storage** • Keep container tightly closed. Store in a cool, dry, well-ventilated place.

### 7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

## Section 8 - Exposure Controls/Personal Protection

### 8.1 Control parameters

| Exposure Limits/Guidelines |        |   |   |
|----------------------------|--------|---|---|
|                            | Result | ACGIH   | NIOSH   |
| Cadmium tungsten oxide     | STELs  | 10 mg/m <sup>3</sup> STEL (as W)<br><i>as Tungsten, insoluble compounds</i>   | 10 mg/m <sup>3</sup> STEL (as W)<br><i>as Tungsten, insoluble compounds</i> |
|                            | TWAs   | 0.01 mg/m <sup>3</sup> TWA (as Cd); 0.002 mg/m <sup>3</sup> TWA (respirable fraction, as Cd)<br><i>as Cadmium compounds</i> | 5 mg/m <sup>3</sup> TWA (as W)<br><i>as Tungsten, insoluble compounds</i>   |
|                            |        | 5 mg/m <sup>3</sup> TWA (as W)<br><i>as Tungsten, insoluble compounds</i>   |   |

#### Exposure Control Notations

##### ACGIH

- Cadmium tungsten oxide as Cadmium compounds: **Carcinogens:** (A2 - Suspected Human Carcinogen)

#### Exposure Limits Supplemental

##### ACGIH

- Cadmium tungsten oxide as Cadmium compounds: **TLV Basis - Critical Effects:** (kidney damage)
- Cadmium tungsten oxide as Tungsten, insoluble compounds: **TLV Basis - Critical Effects:** (lower respiratory tract irritation)

### 8.2 Exposure controls

#### Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

#### Personal Protective Equipment

##### Respiratory

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. 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 symptoms are experienced.

##### Eye/Face

- Wear safety goggles.

##### Skin/Body

- Wear appropriate gloves. Wear long sleeves and/or protective coveralls.

#### Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

#### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

## Section 9 - Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

| <b>Material Description</b>         |                                |                              |   |
|-------------------------------------|--------------------------------|------------------------------|---|
| Physical Form                       | Solid                          | Appearance/Description       | Light yellow or straw-colored crystal with no odor. |
| Color                               | Light yellow or straw-colored. | Odor                         | Odorless  |
| Odor Threshold                      | Data lacking                   |                              |   |
| <b>General Properties</b>           |                                |                              |   |
| Boiling Point                       | Data lacking                   | Melting Point/Freezing Point | Data lacking  |
| Decomposition Temperature           | Data lacking                   | pH                           | Not relevant  |
| Specific Gravity/Relative Density   | = 7.9 Water=1                  | Water Solubility             | Negligible  |
| Viscosity                           | Data lacking                   | Explosive Properties         | Data lacking  |
| Oxidizing Properties:               | Data lacking                   |                              |   |
| <b>Volatility</b>                   |                                |                              |   |
| Vapor Pressure                      | Data lacking                   | Vapor Density                | Data lacking  |
| Evaporation Rate                    | Data lacking                   | VOC (Wt.)                    | Data lacking  |
| Volatiles (Wt.)                     | Data lacking                   |                              |   |
| <b>Flammability</b>                 |                                |                              |   |
| Flash Point                         | Not relevant                   | UEL                          | Not relevant  |
| LEL                                 | Not relevant                   | Autoignition                 | Data lacking  |
| Flammability (solid, gas)           | Data lacking                   |                              |   |
| <b>Environmental</b>                |                                |                              |   |
| Octanol/Water Partition coefficient | Data lacking                   |                              |   |

## 9.2 Other Information

- No additional physical and chemical parameters noted.

## Section 10: Stability and Reactivity

### 10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

- Stable under normal temperatures and pressures.

### 10.3 Possibility of hazardous reactions

- Hazardous polymerization not indicated.

### 10.4 Conditions to avoid

- None expected.

### 10.5 Incompatible materials

- None expected.

### 10.6 Hazardous decomposition products

- None expected.

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

| GHS Properties | Classification   |
|----------------|--|
|                | EU/CLP • Acute Toxicity - Dermal 4; Acute Toxicity - Inhalation 4; Acute Toxicity - Oral |

|                                      |   |
|--------------------------------------|---|
| <b>Acute toxicity</b>                | 4<br>OSHA HCS 2012 • Data lacking   |
| <b>Skin corrosion/Irritation</b>     | EU/CLP • Skin Irritation 2<br>OSHA HCS 2012 • Skin Irritation 2                             |
| <b>Serious eye damage/Irritation</b> | EU/CLP • Eye Irritation 2<br>OSHA HCS 2012 • Eye Irritation 2                               |
| <b>Skin sensitization</b>            | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking                                       |
| <b>Respiratory sensitization</b>     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking                                       |
| <b>Aspiration Hazard</b>             | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking                                       |
| <b>Carcinogenicity</b>               | EU/CLP • Carcinogenicity 1<br>OSHA HCS 2012 • Carcinogenicity 1                             |
| <b>Germ Cell Mutagenicity</b>        | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking                                       |
| <b>Toxicity for Reproduction</b>     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking                                       |
| <b>STOT-SE</b>                       | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking                                       |
| <b>STOT-RE</b>                       | EU/CLP • Data lacking<br>OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1 |

**Potential Health Effects**

**Inhalation**

**Acute (Immediate)**

- Harmful if inhaled. Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

**Chronic (Delayed)**

- Repeated and prolonged exposure to dust may cause lung effects including pneumoconiosis.

**Skin**

**Acute (Immediate)**

- Causes skin irritation.

**Chronic (Delayed)**

- No data available.

**Eye**

**Acute (Immediate)**

- Causes serious eye irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

**Chronic (Delayed)**

- No data available.

**Ingestion**

**Acute (Immediate)**

- Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

**Chronic (Delayed)**

- No data available.

**Other**

**Chronic (Delayed)**

- Excessive Cadmium absorption can result in pulmonary emphysema and/or kidney dysfunction.

**Carcinogenic Effects**

- May cause cancer.

| <b>Carcinogenic Effects</b> |            |             |             |            |
|-----------------------------|------------|-------------|-------------|------------|
|                             | <b>CAS</b> | <b>OSHA</b> | <b>IARC</b> | <b>NTP</b> |
|                             |            |             |             |            |



|  |     |                                      |                      |                        |
|--|-----|--------------------------------------|----------------------|------------------------|
| Cadmium tungsten oxide<br>as Cadmium Compounds | NDA | Specifically Regulated<br>Carcinogen | Group 1-Carcinogenic | Known Human Carcinogen |
|--|-----|--------------------------------------|----------------------|------------------------|

## Section 12 - Ecological Information

### 12.1 Toxicity

- Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

- Material data lacking.

### 12.3 Bioaccumulative potential

- Material data lacking.

### 12.4 Mobility in Soil

- Material data lacking.

### 12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

### 12.6 Other adverse effects

- No studies have been found.

## Section 13 - Disposal Considerations

### 13.1 Waste treatment methods

#### Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

#### Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Section 14 - Transport Information

|           | 14.1 UN number | 14.2 UN proper shipping name | 14.3 Transport hazard class(es) | 14.4 Packing group | 14.5 Environmental hazards |
|-----------|----------------|------------------------------|---------------------------------|--------------------|----------------------------|
| DOT       | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |
| TDG       | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |
| IMO/IMDG  | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |
| IATA/ICAO | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |

### 14.6 Special precautions for user

- None specified.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

### 14.8 Other information

- Not regulated according to animal toxicity testing results.

## Section 15 - Regulatory Information

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

**SARA Hazard Classifications** • Acute, Chronic

| Inventory              |           |            |             |           |           |      |
|------------------------|-----------|------------|-------------|-----------|-----------|------|
| Component              | CAS       | Canada DSL | Canada NDSL | EU EINECS | EU ELNICS | TSCA |
| Cadmium tungsten oxide | 7790-85-4 | No         | Yes         | Yes       | No        | Yes  |

### Canada

#### Labor

##### Canada - WHMIS - Classifications of Substances

- |   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

##### Canada - WHMIS - Ingredient Disclosure List

- |   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

#### Environment

##### Canada - CEPA - Priority Substances List

- |   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

### United States

#### Labor

##### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

- |   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

##### U.S. - OSHA - Specifically Regulated Chemicals

- |   |           |   |
|---|-----------|---|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed  |
| • Cadmium tungsten oxide as Cadmium compounds             |           | 5 µg/m <sup>3</sup> TWA (See 29 CFR 1910.1027, as Cd); 2.5 µg/m <sup>3</sup> Action Level (as Cd) |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed  |

#### Environment

##### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

- |   |           |   |
|---|-----------|---|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed  |
| • Cadmium tungsten oxide as Cadmium compounds             |           | (including any unique chemical substance that contains Cadmium as part of its infrastructure) |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed  |

##### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- |   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

**U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities**

|   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs**

|   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs**

|   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

|   |           |   |
|---|-----------|---|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed  |
| • Cadmium tungsten oxide as Cadmium compounds             |           | 0.1 % de minimis concentration (Chemical Category N078) |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed  |

**U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing**

|   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

**United States - California****Environment****U.S. - California - Proposition 65 - Carcinogens List**

|   |           |                                  |
|---|-----------|----------------------------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed                       |
| • Cadmium tungsten oxide as Cadmium compounds             |           | carcinogen, initial date 10/1/87 |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed                       |

**U.S. - California - Proposition 65 - Developmental Toxicity**

|   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

**U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)**

|   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

**U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)**

|   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

**U.S. - California - Proposition 65 - Reproductive Toxicity - Female**

|   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

**U.S. - California - Proposition 65 - Reproductive Toxicity - Male**

|   |           |            |
|---|-----------|------------|
| • Cadmium tungsten oxide                                  | 7790-85-4 | Not Listed |
| • Cadmium tungsten oxide as Cadmium compounds             |           | Not Listed |
| • Cadmium tungsten oxide as Tungsten, insoluble compounds |           | Not Listed |

## 15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

## 15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

## Section 16 - Other Information

### Revision Date

- 23/May/2017

### Preparation Date

- 20/May/2015

### Disclaimer/Statement of Liability

- Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgement.

### Key to abbreviations

NDA = No data available