

# SAFETY DATA SHEET

Creation Date 09-May-2012

Revision Date 31-May-2024

Revision Number 3

## 1. Identification

|                             |  |
|-----------------------------|--|
| <b>Product Name</b>         | <b>Zinc rod</b>                                |
| <b>Cat No. :</b>            | <b>ZN01345</b>                                 |
| <b>CAS No</b>               | 7440-66-6                                      |
| <b>Synonyms</b>             | No information available                       |
| <b>Recommended Use</b>      | Laboratory chemicals.                          |
| <b>Uses advised against</b> | Food, drug, pesticide or biocidal product use. |

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

#### Company

Stanford Advanced Materials  
23661 Birtcher Dr. Lake Forest, CA 92630 USA  
Tel: +1 (949) 407-8904

#### **Emergency Telephone Number**

+1 (949) 407-8904

## 2. Hazard(s) identification

### **Classification**

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### Label Elements

None required

### Hazards not otherwise classified (HNOC)

Very toxic to aquatic life

## 3. Composition/Information on Ingredients

| Component  | CAS No    | Weight % |
|------------|-----------|----------|
| Zinc metal | 7440-66-6 | <= 100   |

#### 4. First-aid measures

|  |   |
|--|---|
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.         |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| <b>Inhalation</b>                          | Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.       |
| <b>Ingestion</b>                           | Do NOT induce vomiting. Get medical attention.  |
| <b>Most important symptoms and effects</b> | None reasonably foreseeable.  |
| <b>Notes to Physician</b>                  | Treat symptomatically   |

#### 5. Fire-fighting measures

|   |                          |
|---|--------------------------|
| <b>Unsuitable Extinguishing Media</b>   | Water                    |
| <b>Flash Point</b>                      | No information available |
| <b>Method -</b>                         | No information available |
| <b>Autoignition Temperature</b>         | 460 °C / 860 °F          |
| <b>Explosion Limits</b>                 |                          |
| <b>Upper</b>                            | No data available        |
| <b>Lower</b>                            | No data available        |
| <b>Sensitivity to Mechanical Impact</b> | No information available |
| <b>Sensitivity to Static Discharge</b>  | No information available |

#### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

#### Hazardous Combustion Products

Nitrogen oxides (NOx). Sulfur oxides. Ammonia.

#### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### NFPA

|               |                     |                    |                         |
|---------------|---------------------|--------------------|-------------------------|
| <b>Health</b> | <b>Flammability</b> | <b>Instability</b> | <b>Physical hazards</b> |
| 1             | 1                   | 0                  | N/A                     |

#### 6. Accidental release measures

|   |  |
|---|--|
| <b>Personal Precautions</b>                 | Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.  |
| <b>Environmental Precautions</b>            | Should not be released into the environment. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information. |
| <b>Methods for Containment and Clean Up</b> | Sweep up and shovel into suitable containers for disposal. Avoid dust formation.   |

## 7. Handling and storage

**Handling** Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

**Storage.** Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Strong acids. Strong bases. Amines. Combustible material. Peroxides. Metals.

## 8. Exposure controls / personal protection

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures** None under normal use conditions.

### Personal Protective Equipment

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

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** No protective equipment is needed under normal use conditions.

**Recommended Filter type:** Particle filter.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

|   |                          |
|---|--------------------------|
| <b>Physical State</b>                         | Solid; Various Form      |
| <b>Appearance</b>                             | Grey                     |
| <b>Odor</b>                                   | No information available |
| <b>Odor Threshold</b>                         | No information available |
| <b>pH</b>                                     | No information available |
| <b>Melting Point/Range</b>                    | 419 °C / 786.2 °F        |
| <b>Boiling Point/Range</b>                    | 907 °C / 1664.6 °F       |
| <b>Flash Point</b>                            | No information available |
| <b>Evaporation Rate</b>                       | Not applicable           |
| <b>Flammability (solid,gas)</b>               | No information available |
| <b>Flammability or explosive limits</b>       |                          |
| <b>Upper</b>                                  | No data available        |
| <b>Lower</b>                                  | No data available        |
| <b>Vapor Pressure</b>                         | 1.3 mbar @ 478 °C        |
| <b>Vapor Density</b>                          | Not applicable           |
| <b>Specific Gravity</b>                       | 7.140                    |
| <b>Solubility</b>                             | Insoluble in water       |
| <b>Partition coefficient; n-octanol/water</b> | No data available        |
| <b>Autoignition Temperature</b>               | 460 °C / 860 °F          |
| <b>Decomposition Temperature</b>              | No information available |
| <b>Viscosity</b>                              | Not applicable           |
| <b>Molecular Formula</b>                      | Zn                       |
| <b>Molecular Weight</b>                       | 65.36                    |

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactive Hazard</b>                  | None known, based on information available   |
| <b>Stability</b>                        | Stable under normal conditions.  |
| <b>Conditions to Avoid</b>              | Incompatible products. Excess heat. Avoid dust formation.  |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Strong acids, Strong bases, Amines, Combustible material, Peroxides, Metals |
| <b>Hazardous Decomposition Products</b> | Nitrogen oxides (NOx), Sulfur oxides, Ammonia  |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.   |
| <b>Hazardous Reactions</b>              | None under normal processing.  |

## 11. Toxicological information

### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

### **Component Information**

| Component  | LD50 Oral                | LD50 Dermal | LC50 Inhalation |
|------------|--------------------------|-------------|-----------------|
| Zinc metal | LD50 = 630 mg/kg ( Rat ) | Not listed  | Not listed      |

**Toxicologically Synergistic Products** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component  | CAS No    | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|------------|-----------|------------|------------|------------|------------|------------|
| Zinc metal | 7440-66-6 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** See actual entry in RTECS for complete information.

## 12. Ecological information

### Ecotoxicity

Contains a substance which is: Very toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

| Component  | Freshwater Algae   | Freshwater Fish  | Microtox   | Water Flea   |
|------------|--|--|------------|--|
| Zinc metal | EC50: 0.09 - 0.125 mg/L, 72h static (Pseudokirchneriella subcapitata)<br>EC50: 0.11 - 0.271 mg/L, 96h static (Pseudokirchneriella subcapitata) | LC50: = 0.41 mg/L, 96h static (Oncorhynchus mykiss)<br>LC50: = 0.59 mg/L, 96h semi-static (Oncorhynchus mykiss)<br>LC50: 2.16 - 3.05 mg/L, 96h flow-through (Pimephales promelas)<br>LC50: 0.211 - 0.269 mg/L, 96h semi-static (Pimephales promelas)<br>LC50: = 2.66 mg/L, 96h static (Pimephales promelas)<br>LC50: = 30 mg/L, 96h (Cyprinus carpio)<br>LC50: = 0.45 mg/L, 96h semi-static (Cyprinus carpio)<br>LC50: = 7.8 mg/L, 96h static (Cyprinus carpio)<br>LC50: = 0.24 mg/L, 96h flow-through (Oncorhynchus mykiss)<br>LC50: = 3.5 mg/L, 96h static (Lepomis macrochirus) | Not listed | EC50: 0.139 - 0.908 mg/L, 48h Static (Daphnia magna) |

**Persistence and Degradability** Insoluble in water

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Is not likely mobile in the environment due its low water solubility.

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

**DOT** Not regulated  
**TDG** Not regulated  
**IATA** Not regulated  
**IMDG/IMO** Not regulated

### 15. Regulatory information

**United States of America Inventory**

| Component  | CAS No    | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|------------|-----------|------|---|-----------------------------|
| Zinc metal | 7440-66-6 | X    | ACTIVE  | -                           |

**Legend:**

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)  
 X - Listed  
 - - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b) - Notices of Export** Not applicable

| Component  | CAS No    | TSCA 12(b) - Notices of Export |
|------------|-----------|--------------------------------|
| Zinc metal | 7440-66-6 | Section 5<br>Section 6         |

**International Inventories**

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component  | CAS No    | DSL | NDL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|------------|-----------|-----|-----|-----------|-------|------|------|------|-------|----------|
| Zinc metal | 7440-66-6 | X   | -   | 231-175-3 | X     | X    |      | X    | X     | KE-35518 |

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

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Component  | CAS No    | Weight % | SARA 313 - Threshold Values % | SARA 313 - Reporting thresholds |
|------------|-----------|----------|-------------------------------|---------------------------------|
| Zinc metal | 7440-66-6 | <= 100   | 1.0 %                         | -                               |

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

| Component  | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Zinc metal | -                          | -                           | X                      | X                         |

**Clean Air Act**

Not applicable

OSHA - Occupational Safety and Health Administration

Not applicable

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

| Component  | Hazardous Substances RQs | CERCLA Extremely Hazardous Substances RQs | SARA Reportable Quantity (RQ) |
|------------|--------------------------|---|-------------------------------|
| Zinc metal | 1000 lb                  | -   | 454 kg<br>1000 lb             |

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Component  | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|------------|---------------|------------|--------------|----------|--------------|
| Zinc metal | X             | X          | X            | -        | X            |

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y  
DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

**Other International Regulations**

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH Not applicable

| 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) |
|------------|-----------|---|---|---|
| Zinc metal | 7440-66-6 | -   | Use restricted. See item 75.<br>(see link for restriction details)            | -   |

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

| Component  | CAS No    | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|------------|-----------|----------|------------------------------|---------------------------|--|
| Zinc metal | 7440-66-6 | Listed   | Not applicable               | Not applicable            | Not applicable                             |

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

Not applicable

**Other International Regulations**

| Component  | CAS No    | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|------------|-----------|---|--|----------------------------|------------------------------------|
| Zinc metal | 7440-66-6 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

**16. Other information**

**Prepared By** Stanford Advanced Materials Email:  
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**Creation Date** 09-May-2012  
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**Print Date** 31-May-2024  
**Revision Summary** New emergency telephone response service provider.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**