



## Safety Data Sheet according to Singapore Standard SS 586.

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LOCTITE LB 8044 ZN A/S known as Zinc Anti-Seize

SDS No. : 153757

V001.8

Revision: 15.01.2025

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### Section 1. Identification of the substance/preparation and of the company/undertaking

**Product name:** LOCTITE LB 8044 ZN A/S known as Zinc Anti-Seize

**Other means of identification:** LOCTITE LB 8044 ZN A/S CAN1LBEN

**Product code:** IDH233507

**Recommended use of the chemical and restrictions on use**

**Intended use:** Lubricant

**Manufacturer/Importer/Distributor Representative Company**

Henkel Singapore Pte Ltd

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**Emergency Telephone for Chemical Accidents:** FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call: +65 6424 7016

### Section 2. Hazards identification

#### GHS Classification:

##### Hazard Class

Toxic to reproduction

Acute hazards to the aquatic environment

Chronic hazards to the aquatic environment

##### Hazard Category

Category 1A

Category 1

Category 1

#### GHS label elements:

**Hazard pictogram:**



**Signal word:**

Danger

**Hazard statement:** H360 May damage fertility or the unborn child.  
H410 Very toxic to aquatic life with long lasting effects.

**Precaution:**

**Prevention:** P201 Obtain special instructions before use.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** P308+P313 IF exposed or concerned: Get medical advice/attention.  
P391 Collect spillage.

**Disposal:** P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Section 3. Composition / information on ingredients**

**Substance or Mixture:**  
Mixture

**Declaration of hazardous chemical:**

| Hazard component CAS-No.                          | Content  | GHS Classification                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Petrolatum<br>8009-03-8                           | 30- 60 % |                                                                                                                                                                                                                                                                                                                                                |
| zinc powder — zinc dust (pyrophoric)<br>7440-66-6 | 30- 60 % | Pyrophoric solids 1<br>H250<br>Substances and mixtures, which on contact with water, emit flammable gases 1<br>H260<br>Acute hazards to the aquatic environment 1<br>H400<br>Chronic hazards to the aquatic environment 1<br>H410                                                                                                              |
| zinc oxide<br>1314-13-2                           | 1- 10 %  | Acute hazards to the aquatic environment 1<br>H400<br>Chronic hazards to the aquatic environment 1<br>H410                                                                                                                                                                                                                                     |
| Lead<br>7439-92-1                                 | 0.1- 1 % | Reproductive toxicant. 1A<br>H360<br>Effects on or via lactation<br>H362<br>Target Organ Systemic Toxicant - Repeated exposure 1;<br>Oral<br>H372<br>Target Organ Systemic Toxicant - Repeated exposure 1;<br>Inhalation<br>H372<br>Acute hazards to the aquatic environment 1<br>H400<br>Chronic hazards to the aquatic environment 1<br>H410 |
| cadmium (non-pyrophoric)<br>7440-43-9             | < 0.1 %  | Acute toxicity 2; Inhalation<br>H330<br>Germ cell mutagenicity 2<br>H341<br>Carcinogenicity 1B<br>H350<br>Reproductive toxicant. 2<br>H361<br>Target Organ Systemic Toxicant - Repeated exposure 1<br>H372<br>Acute hazards to the aquatic environment 1<br>H400<br>Chronic hazards to the aquatic environment 1<br>H410                       |

#### Section 4. First aid measures

|                      |                                                                                                                                                                                                                                                               |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation:</b>   | Move to fresh air.<br>If not breathing, give artificial respiration.<br>If breathing is difficult, give oxygen.<br>Get medical attention.                                                                                                                     |
| <b>Skin contact:</b> | If high pressure forces the product under the skin get immediate medical attention.<br>Wash with soap and water.<br>If symptoms develop and persist, get medical attention.<br>If hot material contacts the skin, immediately cool before attempting removal. |
| <b>Eye contact:</b>  | Immediately flush eyes with plenty of water for at least 15 minutes.<br>Get medical attention.                                                                                                                                                                |
| <b>Ingestion:</b>    | Get medical attention.<br>Never give anything by mouth to an unconscious person.<br>Do not induce vomiting.<br>Aspiration may cause pulmonary edema and pneumonitis.                                                                                          |

#### Section 5. Fire fighting measures

|                                                                       |                                                                                                                                                                                 |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media:</b>                                  | Water spray (fog), foam, dry chemical or carbon dioxide.                                                                                                                        |
| <b>Specific hazards arising from the chemical:</b>                    | Closed containers may explode when exposed to extreme heat.                                                                                                                     |
| <b>Special protection equipment and precautions for firefighters:</b> | Water spray may be ineffective.<br>Oil will float on water and can spread fire.<br>Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. |
| <b>Hazardous combustion products:</b>                                 | Acrid smoke and fumes.<br>Oxides of carbon.                                                                                                                                     |

#### Section 6. Accidental release measures

|                                   |                                                                                                                                                                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions:</b>      | Avoid skin and eye contact.<br>Wear protective equipment.<br>Ensure adequate ventilation.<br>See advice in section 8                                                                                                                                           |
| <b>Environmental precautions:</b> | Do not empty into drains / surface water / ground water.                                                                                                                                                                                                       |
| <b>Clean-up methods:</b>          | Scrape up as much material as possible. Clean residue with soap and water.<br>Contaminated surfaces will be extremely slippery.<br>Store in a closed container until ready for disposal.<br>Dispose of contaminated material as waste according to Section 13. |

#### Section 7. Handling and storage

|                  |                                                                                                                                                                               |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling:</b> | Keep container closed.<br>Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.<br>Use only with adequate ventilation. |
| <b>Storage:</b>  | Store in a cool, well-ventilated place.                                                                                                                                       |



**Section 8. Exposure controls / personal protection****Components with specific control parameters for workplace:**

|                                                                                                                 |                         |                                   |
|-----------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------|
| Mineral oil, excluding metal working fluids, pure, highly and severely refined, inhalable fraction<br>8009-03-8 | <b>Value type</b>       | Time Weighted Average (TWA):      |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 5                                 |
|                                                                                                                 | <b>Remarks</b>          | ACGIH                             |
| OIL MIST, MINERAL<br>8009-03-8                                                                                  | <b>Value type</b>       | Short Term Exposure Limit (STEL): |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 10                                |
|                                                                                                                 | <b>Remarks</b>          | SG OEL                            |
| OIL MIST, MINERAL<br>8009-03-8                                                                                  | <b>Value type</b>       | Time Weighted Average (TWA):      |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 5                                 |
|                                                                                                                 | <b>Remarks</b>          | SG OEL                            |
| ZINC OXIDE, RESPIRABLE FRACTION<br>1314-13-2                                                                    | <b>Value type</b>       | Time Weighted Average (TWA):      |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 2                                 |
|                                                                                                                 | <b>Remarks</b>          | ACGIH                             |
| ZINC OXIDE, DUST<br>1314-13-2                                                                                   | <b>Value type</b>       | Time Weighted Average (TWA):      |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 10                                |
|                                                                                                                 | <b>Remarks</b>          | SG OEL                            |
| ZINC OXIDE, RESPIRABLE FRACTION<br>1314-13-2                                                                    | <b>Value type</b>       | Short Term Exposure Limit (STEL): |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 10                                |
|                                                                                                                 | <b>Remarks</b>          | ACGIH                             |
| ZINC OXIDE, FUME<br>1314-13-2                                                                                   | <b>Value type</b>       | Time Weighted Average (TWA):      |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 5                                 |
|                                                                                                                 | <b>Remarks</b>          | SG OEL                            |
| ZINC OXIDE, FUME<br>1314-13-2                                                                                   | <b>Value type</b>       | Short Term Exposure Limit (STEL): |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 10                                |
|                                                                                                                 | <b>Remarks</b>          | SG OEL                            |
| LEAD AND INORGANIC COMPOUNDS, AS PB<br>7439-92-1                                                                | <b>Value type</b>       | Time Weighted Average (TWA):      |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 0.05                              |
|                                                                                                                 | <b>Remarks</b>          | ACGIH                             |
| LEAD, INORGANIC DUSTS AND FUMES, AS PB<br>7439-92-1                                                             | <b>Value type</b>       | Time Weighted Average (TWA):      |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 0.15                              |
|                                                                                                                 | <b>Remarks</b>          | SG OEL                            |
| CADMIUM AND COMPOUNDS, AS CD<br>7440-43-9                                                                       | <b>Value type</b>       | Time Weighted Average (TWA):      |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 0.01                              |
|                                                                                                                 | <b>Remarks</b>          | ACGIH                             |
| CADMIUM, ELEMENTAL<br>7440-43-9                                                                                 | <b>Value type</b>       | Time Weighted Average (TWA):      |
|                                                                                                                 | <b>mg/m<sup>3</sup></b> | 0.01                              |
|                                                                                                                 | <b>Remarks</b>          | SG OEL                            |

**Respiratory protection:**

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH.

**Eye protection:**

Safety glasses with side-shields.  
Protective eye equipment should conform to EN166.

**Body protection:**

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.  
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for

dusts.

|                                                 |                                                                                                                                                               |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Engineering controls:</b>                    | Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.   |
| <b>General protection and hygiene measures:</b> | The workplace should be equipped with an emergency shower and eye-rinsing facility.                                                                           |
| <b>Hygienic measures:</b>                       | Wash hands before work breaks and after finishing work.<br>Do not eat, drink or smoke while working.<br>Take off contaminated clothing and wash before reuse. |

## Section 9. Physical and chemical properties

|                                                                                   |                          |
|-----------------------------------------------------------------------------------|--------------------------|
| <b>Appearance:</b>                                                                | Gray / Grey<br>paste     |
| <b>Odor:</b>                                                                      | mild, Petroleum          |
| <b>Odor threshold (CA):</b>                                                       | No data available.       |
| <b>pH:</b>                                                                        | Not available.           |
| <b>Melting point / freezing point:</b>                                            | No data available.       |
| <b>Specific gravity:</b>                                                          | 1.3056                   |
| <b>Boiling point:</b>                                                             | 650 °F (343.3 °C)        |
| <b>Flash point:</b><br>(; HST-US D09F; Flash/Fire<br>Point By Cleveland Open Cup) | 160 °C (320 °F)          |
| <b>Evaporation rate:</b>                                                          | Less than butyl acetate. |
| <b>Flammability (solid, gas):</b>                                                 | No data available.       |
| <b>Lower explosive limit:</b>                                                     | No data available.       |
| <b>Upper explosive limit:</b>                                                     | No data available.       |
| <b>Vapor pressure:</b>                                                            | No data available.       |
| <b>Vapor density:</b>                                                             | Heavier than air.        |
| <b>Density:</b>                                                                   | No data available.       |
| <b>Solubility:</b>                                                                | Negligible               |
| <b>Partition coefficient: n-<br/>octanol/water:</b>                               | No data available.       |
| <b>Auto ignition:</b>                                                             | No data available.       |
| <b>Decomposition temperature:</b>                                                 | No data available.       |
| <b>Viscosity:</b>                                                                 | No data available.       |
| <b>VOC content:</b>                                                               | No data available.       |

## Section 10. Stability and reactivity

|                                            |                                                                                                                          |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity/Incompatible materials:</b>  | Oxidizing agents.<br>Strong acids and strong bases.                                                                      |
| <b>Chemical stability:</b>                 | Stable under recommended storage conditions.                                                                             |
| <b>Possibility of hazardous reactions:</b> | Will not occur.                                                                                                          |
| <b>Conditions to avoid:</b>                | Elevated temperatures.<br>Heat, flames, sparks and other sources of ignition.<br>Store away from incompatible materials. |
| <b>Hazardous decomposition products:</b>   | Oxides of carbon.<br>Irritating fumes.                                                                                   |

## Section 11. Toxicological information

Symptoms of Overexposure: None known.

**Acute oral toxicity:**

|                                                      |            |                                                                   |
|------------------------------------------------------|------------|-------------------------------------------------------------------|
| Petrolatum<br>8009-03-8                              | Value type | LD50                                                              |
|                                                      | Value      | > 5,000 mg/kg                                                     |
|                                                      | Species    | rat                                                               |
|                                                      | Method     | OECD Guideline 401 (Acute Oral Toxicity)                          |
| zinc powder — zinc dust<br>(pyrophoric)<br>7440-66-6 | Value type | LD50                                                              |
|                                                      | Value      | > 2,000 mg/kg                                                     |
|                                                      | Species    | rat                                                               |
|                                                      | Method     | OECD Guideline 401 (Acute Oral Toxicity)                          |
| zinc oxide<br>1314-13-2                              | Value type | LD50                                                              |
|                                                      | Value      | > 5,000 mg/kg                                                     |
|                                                      | Species    | rat                                                               |
|                                                      | Method     | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| Lead<br>7439-92-1                                    | Value type | LD50                                                              |
|                                                      | Value      | > 2,000 mg/kg                                                     |
|                                                      | Species    | rat                                                               |
|                                                      | Method     | OECD Guideline 423 (Acute Oral toxicity)                          |
| cadmium (non-pyrophoric)<br>7440-43-9                | Value type | LD50                                                              |
|                                                      | Value      | 2,330 mg/kg                                                       |
|                                                      | Species    | rat                                                               |
|                                                      | Method     | not specified                                                     |

**Acute inhalative toxicity:**

|                                                      |               |                                                                         |
|------------------------------------------------------|---------------|-------------------------------------------------------------------------|
| zinc powder — zinc dust<br>(pyrophoric)<br>7440-66-6 | Value type    | LC50                                                                    |
|                                                      | Value         | > 5.41 mg/l                                                             |
|                                                      | Exposure time | 4 h                                                                     |
|                                                      | Species       | rat                                                                     |
|                                                      | Method        | OECD Guideline 403 (Acute Inhalation Toxicity)                          |
| zinc oxide<br>1314-13-2                              | Value type    | LC50                                                                    |
|                                                      | Value         | > 5.7 mg/l                                                              |
|                                                      | Exposure time | 4 h                                                                     |
|                                                      | Species       | rat                                                                     |
|                                                      | Method        | equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) |
| Lead<br>7439-92-1                                    | Value type    | LC50                                                                    |
|                                                      | Value         | > 5.05 mg/l                                                             |
|                                                      | Exposure time | 4 h                                                                     |
|                                                      | Species       | rat                                                                     |
|                                                      | Method        | OECD Guideline 403 (Acute Inhalation Toxicity)                          |

**Acute dermal toxicity:**

|                         |            |                                            |
|-------------------------|------------|--------------------------------------------|
| Petrolatum<br>8009-03-8 | Value type | LD50                                       |
|                         | Value      | > 2,000 mg/kg                              |
|                         | Species    | rabbit                                     |
|                         | Method     | OECD Guideline 402 (Acute Dermal Toxicity) |
| zinc oxide<br>1314-13-2 | Value type | LD50                                       |
|                         | Value      | > 2,000 mg/kg                              |
|                         | Species    | rat                                        |
|                         | Method     | OECD Guideline 402 (Acute Dermal Toxicity) |
| Lead<br>7439-92-1       | Value type | LD50                                       |
|                         | Value      | > 2,000 mg/kg                              |
|                         | Species    | rat                                        |
|                         | Method     | OECD Guideline 402 (Acute Dermal Toxicity) |

**Skin corrosion/irritation:**

|                                       |               |                                                                                                |
|---------------------------------------|---------------|------------------------------------------------------------------------------------------------|
| Petrolatum<br>8009-03-8               | Result        | not irritating                                                                                 |
|                                       | Exposure time | 4 h                                                                                            |
|                                       | Species       | rabbit                                                                                         |
|                                       | Method        | OECD Guideline 404 (Acute Dermal Irritation / Corrosion)                                       |
| zinc oxide<br>1314-13-2               | Result        | not irritating                                                                                 |
|                                       | Exposure time |                                                                                                |
|                                       | Species       | rabbit                                                                                         |
|                                       | Method        | OECD Guideline 404 (Acute Dermal Irritation / Corrosion)                                       |
| Lead<br>7439-92-1                     | Result        | not irritating                                                                                 |
|                                       | Exposure time | 4 h                                                                                            |
|                                       | Species       | rabbit                                                                                         |
|                                       | Method        | OECD Guideline 404 (Acute Dermal Irritation / Corrosion)                                       |
| cadmium (non-pyrophoric)<br>7440-43-9 | Result        | not corrosive                                                                                  |
|                                       | Exposure time | 4 h                                                                                            |
|                                       | Species       | Human, EpiSkin™ (SM), Reconstructed Human Epidermis (RHE)                                      |
|                                       | Method        | OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)  |
| cadmium (non-pyrophoric)<br>7440-43-9 | Result        | not irritating                                                                                 |
|                                       | Exposure time | 15 min                                                                                         |
|                                       | Species       | Human, EpiSkin™ (SM), Reconstructed Human Epidermis (RHE)                                      |
|                                       | Method        | OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method) |

**Serious eye damage/irritation:**

|                         |               |                                                                                |
|-------------------------|---------------|--------------------------------------------------------------------------------|
| Petrolatum<br>8009-03-8 | Result        | not irritating                                                                 |
|                         | Exposure time |                                                                                |
|                         | Species       | rabbit                                                                         |
|                         | Method        | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| zinc oxide<br>1314-13-2 | Result        | not irritating                                                                 |
|                         | Exposure time |                                                                                |
|                         | Species       | rabbit                                                                         |
|                         | Method        | OECD Guideline 405 (Acute Eye Irritation / Corrosion)                          |
| Lead<br>7439-92-1       | Result        | not irritating                                                                 |
|                         | Exposure time |                                                                                |
|                         | Species       | rabbit                                                                         |
|                         | Method        | OECD Guideline 405 (Acute Eye Irritation / Corrosion)                          |

**Respiratory or skin sensitization:**

|                         |           |                                         |
|-------------------------|-----------|-----------------------------------------|
| Petrolatum<br>8009-03-8 | Result    | not sensitising                         |
|                         | Test type | Guinea pig maximisation test            |
|                         | Species   | guinea pig                              |
|                         | Method    | OECD Guideline 406 (Skin Sensitisation) |
| zinc oxide<br>1314-13-2 | Result    | not sensitising                         |
|                         | Test type | Guinea pig maximisation test            |
|                         | Species   | guinea pig                              |
|                         | Method    | OECD Guideline 406 (Skin Sensitisation) |
| Lead<br>7439-92-1       | Result    | not sensitising                         |
|                         | Test type | Guinea pig maximisation test            |
|                         | Species   | guinea pig                              |
|                         | Method    | OECD Guideline 406 (Skin Sensitisation) |

**Germ cell mutagenicity:**

|                                       |                                         |                                                                                             |
|---------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------|
| Petrolatum<br>8009-03-8               | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | bacterial reverse mutation assay (e.g Ames test)                                            |
|                                       | Metabolic activation / Exposure time    | with and without                                                                            |
|                                       | Method                                  | OECD Guideline 471 (Bacterial Reverse Mutation Assay)                                       |
| Petrolatum<br>8009-03-8               | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | mammalian cell gene mutation assay                                                          |
|                                       | Metabolic activation / Exposure time    | with and without                                                                            |
|                                       | Method                                  | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)                             |
| Petrolatum<br>8009-03-8               | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration |                                                                                             |
|                                       | Metabolic activation / Exposure time    | with and without                                                                            |
|                                       | Method                                  | equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Petrolatum<br>8009-03-8               | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | dermal                                                                                      |
|                                       | Metabolic activation / Exposure time    |                                                                                             |
|                                       | Species                                 | rat                                                                                         |
|                                       | Method                                  | OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)                       |
| zinc oxide<br>1314-13-2               | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | bacterial reverse mutation assay (e.g Ames test)                                            |
|                                       | Metabolic activation / Exposure time    | with and without                                                                            |
|                                       | Method                                  | OECD Guideline 471 (Bacterial Reverse Mutation Assay)                                       |
| zinc oxide<br>1314-13-2               | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | in vitro mammalian chromosome aberration test                                               |
|                                       | Metabolic activation / Exposure time    | with and without                                                                            |
|                                       | Method                                  | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)                          |
| zinc oxide<br>1314-13-2               | Result                                  | ambiguous                                                                                   |
|                                       | Type of study / Route of administration | mammalian cell gene mutation assay                                                          |
|                                       | Metabolic activation / Exposure time    | with and without                                                                            |
|                                       | Method                                  | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)                             |
| zinc oxide<br>1314-13-2               | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | inhalation: aerosol                                                                         |
|                                       | Metabolic activation / Exposure time    |                                                                                             |
|                                       | Species                                 | rat                                                                                         |
|                                       | Method                                  | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)                                |
| zinc oxide<br>1314-13-2               | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | inhalation: aerosol                                                                         |
|                                       | Metabolic activation / Exposure time    |                                                                                             |
|                                       | Species                                 | rat                                                                                         |
|                                       | Method                                  | OECD Guideline 489 (In Vivo Mammalian Alkaline Comet Assay)                                 |
| Lead<br>7439-92-1                     | Result                                  | ambiguous                                                                                   |
|                                       | Type of study / Route of administration | oral: feed                                                                                  |
|                                       | Metabolic activation / Exposure time    |                                                                                             |
|                                       | Species                                 | mouse                                                                                       |
|                                       | Method                                  | not specified                                                                               |
| Lead<br>7439-92-1                     | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | inhalation                                                                                  |
|                                       | Metabolic activation / Exposure time    |                                                                                             |
|                                       | Species                                 | mouse                                                                                       |
|                                       | Method                                  | not specified                                                                               |
| cadmium (non-pyrophoric)<br>7440-43-9 | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | bacterial reverse mutation assay (e.g Ames test)                                            |
|                                       | Metabolic activation / Exposure time    | with and without                                                                            |
|                                       | Method                                  | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)              |
| cadmium (non-pyrophoric)<br>7440-43-9 | Result                                  | ambiguous                                                                                   |
|                                       | Type of study / Route of administration | in vitro mammalian chromosome aberration test                                               |
|                                       | Metabolic activation / Exposure time    | not applicable                                                                              |
|                                       | Method                                  | Chromosome Aberration Test                                                                  |
| cadmium (non-pyrophoric)<br>7440-43-9 | Result                                  | negative                                                                                    |
|                                       | Type of study / Route of administration | inhalation                                                                                  |
|                                       | Metabolic activation / Exposure time    |                                                                                             |

|  |         |                                                                                       |
|--|---------|---------------------------------------------------------------------------------------|
|  | Species | mouse                                                                                 |
|  | Method  | equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |

**Repeated dose toxicity:**

|                                       |                                        |                                                                                                   |
|---------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------|
| Petrolatum<br>8009-03-8               | Result                                 | NOAEL=5,000 mg/kg                                                                                 |
|                                       | Route of application                   | oral: feed                                                                                        |
|                                       | Exposure time / Frequency of treatment | 2 y continuous, ad libitum                                                                        |
|                                       | Species                                | rat                                                                                               |
|                                       | Method                                 | equivalent or similar to OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |
| zinc oxide<br>1314-13-2               | Result                                 | NOAEL=31.52 mg/kg                                                                                 |
|                                       | Route of application                   | oral: gavage                                                                                      |
|                                       | Exposure time / Frequency of treatment | 90 ddaily                                                                                         |
|                                       | Species                                | rat                                                                                               |
|                                       | Method                                 | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)                                |
| zinc oxide<br>1314-13-2               | Result                                 | NOAEL=1.5 mg/m3                                                                                   |
|                                       | Route of application                   | inhalation                                                                                        |
|                                       | Exposure time / Frequency of treatment | 3 m6 h/d, 5 d/w                                                                                   |
|                                       | Species                                | rat                                                                                               |
|                                       | Method                                 | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)                                       |
| zinc oxide<br>1314-13-2               | Result                                 | NOAEL=1,000 mg/kg                                                                                 |
|                                       | Route of application                   | dermal                                                                                            |
|                                       | Exposure time / Frequency of treatment | 90 d6 h/d, daily                                                                                  |
|                                       | Species                                | rat                                                                                               |
|                                       | Method                                 | OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)                                     |
| cadmium (non-pyrophoric)<br>7440-43-9 | Result                                 |                                                                                                   |
|                                       | Route of application                   | oral: feed                                                                                        |
|                                       | Exposure time / Frequency of treatment | 90 ddaily                                                                                         |
|                                       | Species                                | rat                                                                                               |
|                                       | Method                                 | not specified                                                                                     |
| cadmium (non-pyrophoric)<br>7440-43-9 | Result                                 |                                                                                                   |
|                                       | Route of application                   | oral: drinking water                                                                              |
|                                       | Exposure time / Frequency of treatment | 12 mdaily                                                                                         |
|                                       | Species                                | rat                                                                                               |
|                                       | Method                                 | not specified                                                                                     |
| cadmium (non-pyrophoric)<br>7440-43-9 | Result                                 | NOAEL=0.025 mg/m3                                                                                 |
|                                       | Route of application                   | inhalation                                                                                        |
|                                       | Exposure time / Frequency of treatment | 13 w6 h/d, 5 d/w                                                                                  |
|                                       | Species                                | rat                                                                                               |
|                                       | Method                                 | equivalent or similar to OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)              |

**Section 12. Ecological information**

**General ecological information:** Do not empty into drains / surface water / ground water.

**Ecotoxicity:** H410 Very toxic to aquatic life with long lasting effects.

**Toxicity:**

|                         |                      |                                                |
|-------------------------|----------------------|------------------------------------------------|
| Petrolatum<br>8009-03-8 | Value type           | LC50                                           |
|                         | Value                | 3,779 mg/l                                     |
|                         | Acute Toxicity Study | Fish                                           |
|                         | Exposure time        | 96 h                                           |
|                         | Species              | Oncorhynchus mykiss                            |
| Petrolatum<br>8009-03-8 | Method               | OECD Guideline 203 (Fish, Acute Toxicity Test) |
|                         | Value type           | EC50                                           |
|                         | Value                | 1,425 mg/l                                     |
|                         | Acute Toxicity Study | Daphnia                                        |

|                                                      |                      |                                                                       |
|------------------------------------------------------|----------------------|-----------------------------------------------------------------------|
|                                                      | Exposure time        | 48 h                                                                  |
|                                                      | Species              | Daphnia magna                                                         |
|                                                      | Method               | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)            |
| Petrolatum<br>8009-03-8                              | Value type           | EC50                                                                  |
|                                                      | Value                | > 1,000 mg/l                                                          |
|                                                      | Acute Toxicity Study | Algae                                                                 |
|                                                      | Exposure time        | 72 h                                                                  |
|                                                      | Species              | not specified                                                         |
|                                                      | Method               | OECD Guideline 201 (Alga, Growth Inhibition Test)                     |
|                                                      | Value type           |                                                                       |
| Petrolatum<br>8009-03-8                              | Value                | 100 mg/l                                                              |
|                                                      | Acute Toxicity Study | Algae                                                                 |
|                                                      | Exposure time        | 72 h                                                                  |
|                                                      | Species              | Pseudokirchneriella subcapitata                                       |
|                                                      | Method               | OECD Guideline 201 (Alga, Growth Inhibition Test)                     |
|                                                      | Value type           | EC0                                                                   |
|                                                      | Value                | 1,000 mg/l                                                            |
| zinc powder — zinc dust<br>(pyrophoric)<br>7440-66-6 | Acute Toxicity Study | Bacteria                                                              |
|                                                      | Exposure time        | 30 min                                                                |
|                                                      | Species              | not specified                                                         |
|                                                      | Method               | not specified                                                         |
|                                                      | Value type           | LC50                                                                  |
|                                                      | Value                | 0.8 mg/l                                                              |
|                                                      | Acute Toxicity Study | Fish                                                                  |
| zinc oxide<br>1314-13-2                              | Exposure time        | 96 h                                                                  |
|                                                      | Species              | Salmo gairdneri (new name: Oncorhynchus mykiss)                       |
|                                                      | Method               | OECD Guideline 203 (Fish, Acute Toxicity Test)                        |
|                                                      | Value type           | LC50                                                                  |
|                                                      | Value                | 0.142 mg/l                                                            |
|                                                      | Acute Toxicity Study | Fish                                                                  |
|                                                      | Exposure time        | 96 h                                                                  |
| zinc oxide<br>1314-13-2                              | Species              | Thymallus arcticus                                                    |
|                                                      | Method               | OECD Guideline 203 (Fish, Acute Toxicity Test)                        |
|                                                      | Value type           | NOEC                                                                  |
|                                                      | Value                | 0.44 mg/l                                                             |
|                                                      | Acute Toxicity Study | Fish                                                                  |
|                                                      | Exposure time        | 72 d                                                                  |
|                                                      | Species              | Oncorhynchus mykiss                                                   |
| zinc oxide<br>1314-13-2                              | Method               | other guideline:                                                      |
|                                                      | Value type           | EC50                                                                  |
|                                                      | Value                | 1 mg/l                                                                |
|                                                      | Acute Toxicity Study | Daphnia                                                               |
|                                                      | Exposure time        | 48 h                                                                  |
|                                                      | Species              | Daphnia magna                                                         |
|                                                      | Method               | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)            |
| zinc oxide<br>1314-13-2                              | Value type           | NOEC                                                                  |
|                                                      | Value                | 0.017 mg/l                                                            |
|                                                      | Acute Toxicity Study | Algae                                                                 |
|                                                      | Exposure time        | 72 h                                                                  |
|                                                      | Species              | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) |
|                                                      | Method               | OECD Guideline 201 (Alga, Growth Inhibition Test)                     |
|                                                      | Value type           | EC50                                                                  |
| zinc oxide<br>1314-13-2                              | Value                | 0.17 mg/l                                                             |
|                                                      | Acute Toxicity Study | Algae                                                                 |
|                                                      | Exposure time        | 72 h                                                                  |
|                                                      | Species              | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) |
|                                                      | Method               | OECD Guideline 201 (Alga, Growth Inhibition Test)                     |
|                                                      | Value type           | IC50                                                                  |
|                                                      | Value                | 5.2 mg/l                                                              |
| zinc oxide<br>1314-13-2                              | Acute Toxicity Study | Bacteria                                                              |
|                                                      | Exposure time        | 3 h                                                                   |
|                                                      | Species              | not specified                                                         |
|                                                      | Method               | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)    |
| Lead<br>7439-92-1                                    | Value type           | LC50                                                                  |
|                                                      | Value                | 0.0408 mg/l                                                           |
|                                                      | Acute Toxicity Study | Fish                                                                  |
|                                                      | Exposure time        | 96 h                                                                  |
|                                                      | Species              | Pimephales promelas                                                   |
|                                                      | Method               | other guideline:                                                      |
|                                                      | Value type           | NOEC                                                                  |
|                                                      | Value                | 0.009 mg/l                                                            |

|                                       |  |                      |                                                   |
|---------------------------------------|--|----------------------|---------------------------------------------------|
|                                       |  | Acute Toxicity Study | Fish                                              |
|                                       |  | Exposure time        |                                                   |
|                                       |  | Species              | Pimephales promelas                               |
|                                       |  | Method               | other guideline:                                  |
| Lead<br>7439-92-1                     |  | Value type           | EC50                                              |
|                                       |  | Value                | 0.026 mg/l                                        |
|                                       |  | Acute Toxicity Study | Daphnia                                           |
|                                       |  | Exposure time        |                                                   |
|                                       |  | Species              | Ceriodaphnia dubia                                |
|                                       |  | Method               | other guideline:                                  |
| Lead<br>7439-92-1                     |  | Value type           | EC50                                              |
|                                       |  | Value                | 0.0205 mg/l                                       |
|                                       |  | Acute Toxicity Study | Algae                                             |
|                                       |  | Exposure time        | 72 h                                              |
|                                       |  | Species              | Pseudokirchneriella subcapitata                   |
|                                       |  | Method               | OECD Guideline 201 (Alga, Growth Inhibition Test) |
|                                       |  | Value type           | EC10                                              |
|                                       |  | Value                | 0.0061 mg/l                                       |
|                                       |  | Acute Toxicity Study | Algae                                             |
|                                       |  | Exposure time        | 72 h                                              |
|                                       |  | Species              | Pseudokirchneriella subcapitata                   |
|                                       |  | Method               | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| cadmium (non-pyrophoric)<br>7440-43-9 |  | Value type           | LC50                                              |
|                                       |  | Value                | 0.034 mg/l                                        |
|                                       |  | Acute Toxicity Study | Fish                                              |
|                                       |  | Exposure time        | 24 d                                              |
|                                       |  | Species              | Salmo salar                                       |
|                                       |  | Method               | other guideline:                                  |
|                                       |  | Value type           | NOEC                                              |
|                                       |  | Value                | 0.012 mg/l                                        |
|                                       |  | Acute Toxicity Study | Fish                                              |
|                                       |  | Exposure time        | 84 d                                              |
|                                       |  | Species              | Oncorhynchus mykiss                               |
|                                       |  | Method               | other guideline:                                  |
| cadmium (non-pyrophoric)<br>7440-43-9 |  | Value type           | EC50                                              |
|                                       |  | Value                | 0.038 mg/l                                        |
|                                       |  | Acute Toxicity Study | Daphnia                                           |
|                                       |  | Exposure time        | 48 h                                              |
|                                       |  | Species              | Daphnia magna                                     |
|                                       |  | Method               | other guideline:                                  |
| cadmium (non-pyrophoric)<br>7440-43-9 |  | Value type           | EC50                                              |
|                                       |  | Value                | 0.018 mg/l                                        |
|                                       |  | Acute Toxicity Study | Algae                                             |
|                                       |  | Exposure time        | 72 h                                              |
|                                       |  | Species              | Pseudokirchneriella subcapitata                   |
|                                       |  | Method               | OECD Guideline 201 (Alga, Growth Inhibition Test) |
|                                       |  | Value type           | EC10                                              |
|                                       |  | Value                | 0.018 mg/l                                        |
|                                       |  | Acute Toxicity Study | Algae                                             |
|                                       |  | Exposure time        | 72 h                                              |
|                                       |  | Species              | other:                                            |
|                                       |  | Method               | other guideline:                                  |

**Persistence and degradability:**

|                         |                      |                            |
|-------------------------|----------------------|----------------------------|
| Petrolatum<br>8009-03-8 | Result               | not readily biodegradable. |
|                         | Route of application | aerobic                    |
|                         | Degradability        | 51 %                       |
|                         | Method               | ISO 10708 (BODIS-Test)     |

**Bioaccumulative potential / Mobility in soil:**

|                   |                               |               |
|-------------------|-------------------------------|---------------|
| Lead<br>7439-92-1 | Bioconcentration factor (BCF) | 1,553         |
|                   | Exposure time                 |               |
|                   | Species                       |               |
|                   | Temperature                   |               |
|                   | Method                        | not specified |

### Section 13. Disposal considerations

#### Product

**Method of disposal:** Dispose of in accordance with local and national regulations.

#### Packaging

**Disposal of uncleaned packages:** Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

### Section 14. Transport information

#### **Road transport ADR:**

|                       |                                                                      |
|-----------------------|----------------------------------------------------------------------|
| Class:                | 9                                                                    |
| Packing group:        | III                                                                  |
| Classification code:  | M6                                                                   |
| Hazard ident. number: | 90                                                                   |
| UN no.:               | 3082                                                                 |
| Label:                | 9                                                                    |
| Technical name:       | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>N.O.S. (Zinc powder) |

#### **Railroad transport RID:**

|                       |                                                                      |
|-----------------------|----------------------------------------------------------------------|
| Class:                | 9                                                                    |
| Packing group:        | III                                                                  |
| Classification code:  | M6                                                                   |
| Hazard ident. number: | 90                                                                   |
| UN no.:               | 3082                                                                 |
| Label:                | 9                                                                    |
| Technical name:       | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>N.O.S. (Zinc powder) |

#### **Inland water transport ADN:**

|                       |                                                                      |
|-----------------------|----------------------------------------------------------------------|
| Class:                | 9                                                                    |
| Packing group:        | III                                                                  |
| Classification code:  | M6                                                                   |
| Hazard ident. number: | 90                                                                   |
| UN no.:               | 3082                                                                 |
| Label:                | 9                                                                    |
| Technical name:       | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>N.O.S. (Zinc powder) |

#### **Marine transport IMDG:**

|                |          |
|----------------|----------|
| Class:         | 9        |
| Packing group: | III      |
| UN no.:        | 3082     |
| Label:         | 9        |
| EmS:           | F-A ,S-F |

Seawater pollutant:  
Proper shipping name:

Marine pollutant  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (Zinc powder)

**Air transport IATA:**

|                                     |                                                                   |
|-------------------------------------|-------------------------------------------------------------------|
| Class:                              | 9                                                                 |
| Packing group:                      | III                                                               |
| Packaging instructions (passenger): | 964                                                               |
| Packaging instructions (cargo):     | 964                                                               |
| UN no.:                             | 3082                                                              |
| Label:                              | 9                                                                 |
| Proper shipping name:               | Environmentally hazardous substance, liquid, n.o.s. (Zinc powder) |

**Further information for transport:**

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), A197 (IATA), 2.10.2.7 (IMDG), NZ 4.3(10) may be applied, which can result in a deviation from the transport classification for packed goods.

**Section 15. Regulatory information**

**Regulatory Information:** Workplace Safety And Health Act (Chapter 354A, Section 40B) Workplace Safety And Health (Approved Codes of Practice) Notification 2020.  
Workplace Safety And Health Act (Chapter 354A, Section 65) Workplace Safety And Health (General Provisions) (Amendment No.2) Regulations 2024

**Global inventory status:**

| Regulatory list | Notification |
|-----------------|--------------|
| TSCA            | yes          |
| DSL             | yes          |
| KECI (KR)       | yes          |
| ENCS (JP)       | yes          |
| ISHL (JP)       | yes          |
| IECSC           | yes          |
| AIIC            | yes          |
| NZIOC           | yes          |
| TCSI            | yes          |
| PICCS (PH)      | yes          |
| INSQ            | yes          |
| EINECS          | yes          |

**Section 16. Other information****Disclaimer:**

This Safety Data Sheet has been generated based on Workplace Safety And Health Act (Chapter 354A, Section 40B) Workplace Safety And Health (Approved Codes of Practice) Notification 2020 and Workplace Safety And Health Act (Chapter 354A, Section 65) Workplace Safety And Health (General Provisions) (Amendment No.2) Regulations 2024 only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance. This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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