Zinc (cas 7440-66-6) MSDS

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

- Product name: zinc preparation
- Product Number: 499552
- Brand: Anonymous
- CAS-No.: 7440-66-6

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

- Identified uses: Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
- Flammable liquids (Category 2)
- Eye irritation (Category 2)
- Specific target organ toxicity - single exposure (Category 3)
- Chronic aquatic toxicity (Category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
- Highly flammable. Irritating to eyes and respiratory system. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May form explosive peroxides.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

- Pictogram

Signal word: Danger

Hazard statement(s):
- H225: Highly flammable liquid and vapour.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.
- H411: Toxic to aquatic life with long lasting effects.

Precautionary statement(s):
- P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P273: Avoid release to the environment.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard information (EU)
- EUH019: May form explosive peroxides.


- Hazard symbol(s)

R-phrase(s):
- R11: Highly flammable.
- R10: May form explosive peroxides.
- R36/37: Irritating to eyes and respiratory system.
- R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s):
- S16: Keep away from sources of ignition - No smoking.
- S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S61: Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS
3.2 Mixtures

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>tetrahydrofuran</td>
<td>Flam. Liq. 2; Eye Irrit. 2; STOT 50 - 100 %</td>
<td></td>
</tr>
<tr>
<td>CAS-No. 109-99-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC-No. 203-726-8</td>
<td>SE 3; H225, H319, H335, EUH019</td>
<td></td>
</tr>
<tr>
<td>Index-No. 603-025-00-0</td>
<td>F, Xi, R11 - R19 - R36/37</td>
<td></td>
</tr>
<tr>
<td>Zinc powder (stabilized)</td>
<td>Aquatic Acute 1; Aquatic Chronic 1; H410</td>
<td>2.5 - 10 %</td>
</tr>
<tr>
<td>CAS-No. 7440-66-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC-No. 231-175-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index-No. 030-001-01-9</td>
<td>N, R50/53</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Central nervous system depression, Cough, chest pain, Difficulty in breathing, Exposure to high airborne concentrations can cause anesthetic effects., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Zinc/zinc oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C

Store under inert gas. Dry residue is explosive. Test for peroxide formation periodically and before distillation.

7.3 Specific end uses
no data available

8. EXPOSURE CONTROLS/PERSOINAL PROTECTION
8.1 Control parameters
Components with workplace control parameters
8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Appearance</td>
<td>Form: liquid</td>
</tr>
<tr>
<td>b) Odour</td>
<td>no data available</td>
</tr>
<tr>
<td>c) Odour Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>d) pH</td>
<td>no data available</td>
</tr>
<tr>
<td>e) Melting point/freezing point</td>
<td>no data available</td>
</tr>
<tr>
<td>f) Initial boiling point and boiling range</td>
<td>no data available</td>
</tr>
<tr>
<td>g) Flash point</td>
<td>-17.22 °C - closed cup</td>
</tr>
<tr>
<td>h) Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>i) Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>j) Upper/lower</td>
<td>no data available</td>
</tr>
</tbody>
</table>
k) Vapour pressure no data available
l) Vapour density no data available
m) Relative density 0.949 g/cm³
n) Water solubility no data available
o) Partition coefficient: n-octanol/water no data available
p) Autoignition temperature no data available
q) Decomposition temperature no data available
r) Viscosity no data available
s) Explosive properties no data available
t) Oxidizing properties no data available

9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
no data available

10.2 Chemical stability
no data available

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials
Oxidizing agents, Strong oxidizing agents, Oxygen

10.6 Hazardous decomposition products
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness.
**Ingestion**
Harmful if swallowed.

**Skin**
May be harmful if absorbed through skin. May cause skin irritation.

**Eyes**
Causes eye burns.

**Signs and Symptoms of Exposure**
Central nervous system depression, Cough, chest pain, Difficulty in breathing. Exposure to high airborne concentrations can cause anesthetic effects. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information**
RTECS: Not available

12. **ECOLOGICAL INFORMATION**

12.1 **Toxicity**
no data available

12.2 **Persistence and degradability**
no data available

12.3 **Bioaccumulative potential**
no data available

12.4 **Mobility in soil**
no data available

12.5 **Results of PBT and vPvB assessment**
no data available

12.6 **Other adverse effects**
Toxic to aquatic life with long lasting effects.

13. **DISPOSAL CONSIDERATIONS**

13.1 **Waste treatment methods**
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. **TRANSPORT INFORMATION**

14.1 **UN number**
ADR/RID: 1993  
IMDG: 1993  
IATA: 1993

14.2 **UN proper shipping name**
ADR/RID: FLAMMABLE LIQUID, N.O.S. (Tetrahydrofuran, Zinc powder (stabilized))  
IMDG: FLAMMABLE LIQUID, N.O.S. (Tetrahydrofuran, Zinc powder (stabilized))  
IATA: Flammable liquid, n.o.s. (Tetrahydrofuran, Zinc powder (stabilized))

14.3 **Transport hazard class(es)**
ADR/RID: 3  
IMDG: 3  
IATA: 3

14.4 **Packaging group**
ADR/RID: II  
IMDG: II  
IATA: II

14.5 **Environmental hazards**
ADR/RID: no  
IMDG Marine pollutant: no  
IATA: no

14.6 **Special precautions for user**
no data available

15. **REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
no data available

15.2 **Chemical Safety Assessment**
no data available

16. **OTHER INFORMATION**

**Text of H-code(s) and R-phrase(s) mentioned in Section 3**
Aquatic Acute  Acute aquatic toxicity
Aquatic Chronic  Chronic aquatic toxicity
EUH019  May form explosive peroxides.
Eye Irrit.  Eye irritation
Flam. Liq.  Flammable liquids
H225  Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.
STOT SE Specific target organ toxicity - single exposure
F Highly flammable
N Dangerous for the environment
R11 Highly flammable.
R19 May form explosive peroxides.
R36/37 Irritating to eyes and respiratory system.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Xi Irritant

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information this document is based on the resent state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. guidechem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.