Zinc acetate SDS/MSDS (Safety Data Sheet)

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

* Product Name: Zinc acetate
* Catalog Number: E0169
* CAS Number: 557-34-6
* IUPAC Name: Acetic acid, zinc salt (2:1)

Relevant identified uses and uses advised against

* Identified uses: For research and development use only; laboratory chemicals; manufacture of substances.
* Uses advised against: Not for pharmaceutical, household, or other unapproved uses.

Details of the supplier

* Company: Selleck Chemicals
* TollFree: +1 877 796-6397
* Tel: +1 832 582-8158
* Fax: +1 832 582-8590

Emergency telephone number

* Emergency phone #: +1 832 582-8158

2. HAZARDS IDENTIFICATION

2.1 GHS classification in accordance with 29 CFR 1910 (OSHA HCS):

Acute toxicity (oral): Category 4. H302
Serious eye damage: Category 1. H318
Serious eye irritation: Category 2. H319
Acute aquatic toxicity: Category 1. H400
Chronic aquatic toxicity: Category 1. H410
Chronic aquatic toxicity: Category 2. H411

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram(s)	
Signal Word	Danger
Hazard statement(s)	H302: Harmful if swallowed H318: Causes serious eye damage H319: Causes serious eye irritation H400: Very toxic to aquatic life H410: Very toxic to aquatic life with long lasting effects H411: Toxic to aquatic life with long lasting effects
Precautionary statement(s)	None.

Prevention	P264: Wash hands thoroughly after handling. P264+P265: Wash hands thoroughly after handling. Do not touch eyes. P270: Do not eat, drink or smoke when using this product. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Response	P301+P317: IF SWALLOWED: Get medical help. P305+P351: IF IN EYES: Rinse cautiously with water for several minutes. P305+P354: IF IN EYES: Immediately rinse with water for several minutes. P317: Get emergency medical help. P330: Rinse mouth. P337+P317: If eye irritation persists: Get medical help. P338: Remove contact lenses, if present and easy to do. Continue rinsing. P391: Collect spillage.
Disposal	P501: P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Product name: Zinc acetate

CAS Number: 557-34-6

PubChem CID: 11192

Molecular formula: C4H6O4Zn

Molecular weight: 183.5 g/mol

IUPAC name: zinc diacetate

3.2 Mixtures

Not applicable (pure substance).

4. FIRST-AID MEASURES

4.1 Description of first aid measures

Inhalation: INHALATION: move to fresh air; if exposure is severe, get medical attention.

Skin contact: SKIN: wash with soap and water. (USCG, 1999)

Eye contact: EYES: flush with water for at least 10 min.; consult physician if irritation persists.

Ingestion: INGESTION: induce vomiting, followed by prompt and complete gastric lavage, cathartics, and demulcents.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 (Toxicological Information).

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact a poison control center or physician for severe exposure.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable: Water spray, dry chemical, carbon dioxide (CO2), alcohol-resistant foam.

Unsuitable: None known.

5.2 Specific hazards arising from the substance or mixture

If material on fire or involved in fire: Extinguish fire using agent suitable for type of surrounding fire. (Material does not burn or burns with difficulty.)

5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective clothing.

Fight fire from upwind. Cool containers with water spray until fire is extinguished.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment (see Section 8).

Avoid breathing dust/vapor. Ensure adequate ventilation.

Evacuate personnel to safe areas. Keep people away from and upwind of spill.

6.2 Environmental precautions

Prevent product from entering drains, waterways, or soil.

Contain spill with inert absorbent material.

6.3 Methods and materials for containment and cleaning up

Environmental considerations: Land spill: Dig a pit, pond, lagoon, or holding area to contain liquid or solid material. /SRP: If time permits, pits, ponds, lagoons, soak holes, or holding areas should be contained with a flexible impermeable membrane liner./ Cover solids with a plastic sheet to prevent dissolving in rain or fire fighting water.

Environmental considerations: Water spill: Neutralize with agricultural lime (CaO), crushed limestone, or sodium bicarbonate. Add soda ash. Adjust pH to neutral (pH 7). Use mechanical dredges or lifts to remove immobilized masses of pollutants and precipitates or greater concentration.

SRP: The most favorable course of action is to use an alternative chemical product with less inherent propensity for occupational exposure or environmental contamination. Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier. Ultimate disposal of the chemical must consider: the material's impact on air quality; potential migration in soil or water; effects on animal, aquatic, and plant life; and conformance with environmental and public health regulations.

Chemical Treatability of Zinc; Concentration Process: Ultrafiltration; Chemical Classification: Metals; Scale of Study: Continuous flow, pilot scale; Type of Wastewater Used: Industrial wastewater; Results of Study: 0.38 ppm effluent concentration. /Zinc/

Chemical Treatability of Zinc; Concentration Process: Miscellaneous sorbents; Chemical Classification: Metals; Scale of Study: Literature review; Type of Wastewater Used: Unknown; Results of Study: Final concentration reduced to 0.1 ppb; SiO2 + CaO slags used. /Zinc/

The proprietary Sulfex process (Permutit Co) has been applied to zinc wastes. The process involves addition of ferrous sulfide, which gradually releases sulfide to precipitate the zinc ... . /Zinc/

For more Disposal Methods (Complete) data for ZINC ACETATE (11 total), please visit the HSDB record page.

If material not on fire and not involved in fire: Keep material out of water sources and sewers. Build dikes to contain flow as necessary. Keep up wind. Avoid breathing vapors or dusts. Wash away any material which may have contacted the body with copious amounts of water or soap and water.

SRP: The scientific literature for the use of contact lenses in industry is conflicting. The benefit or detrimental effects of wearing contact lenses depend not only upon the substance, but also on factors including the form of the substance, characteristics and duration of the exposure, the uses of other eye protection equipment, and the hygiene of the lenses. However, there may be individual substances whose irritating or corrosive properties are such that the wearing of contact lenses would be harmful to the eye. In those specific cases, contact lenses should not be worn. In any event, the usual eye protection equipment should be worn even when contact lenses are in place.

Prevention ... /of metal fume fever/ is a matter of keeping exposure of workers below level of concn currently accepted as satisfactory for working with the metal in industry, preferably by employment of proper local exhaust ventilation to collect fumes at their source. Acceptable respirators are avail commercially but should be used only under suitable conditions. /Zinc/

In all cases where zinc is heated to the point where fume is produced, it is most important to ensure that adequate ventilation is provided. Individual protection is best ensured by education of the worker concerning metal-fume fever & the provision of local exhaust ventilation, or, in some situations by wearing of supplied-air hood or mask.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep in well-closed containers.

Finely divided ... zinc compounds, can be fire and explosion hazard if stored in damp places, sources of spontaneous combustion. /Zinc cmpd/

7.2 Conditions for safe storage, including any incompatibilities

Keep in well-closed containers.

Finely divided ... zinc compounds, can be fire and explosion hazard if stored in damp places, sources of spontaneous combustion. /Zinc cmpd/

Store away from incompatible materials (see Section 10).

[Note: Specific storage temperature not available in public databases. Refer to supplier Certificate of Analysis (COA) for exact storage conditions.]

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure controls

8.1.1 Occupational exposure limits (OEL)

OSHA PEL: Not established.

ACGIH TLV: Not established.

NIOSH REL: Not established.

No occupational exposure limit values are established for this substance.

Use the lowest feasible exposure level (ALARA principle).

8.1.2 Appropriate engineering controls

Use in a well-ventilated area. Chemical fume hood recommended for powder handling.

8.2 Individual protection measures

8.2.1 Eye/face protection

Wear chemical safety goggles and face shield.

8.2.2 Skin protection

Wear protective gloves. Recommended material: Nitrile rubber.

Wear suitable protective clothing (lab coat).

8.2.3 Respiratory protection

Respiratory protection usually not required under normal use with adequate ventilation.

Use N95 respirator for large-scale powder handling.

8.2.4 Thermal hazards

Not applicable.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance: Obtained in both anhydrous form and as a dihydrate. Both are white crystalline solids. The primary hazard is the threat posed to the environment. Immediate steps should be taken to limit spread to the environment. Used to preserve wood, to make other zinc compounds, as a food and feed additive.

b) Odor: No data available

c) Odor threshold: No data available

d) pH: Between 6,0 and 8,0 (5 % solution)

e) Melting point/freezing point: 237 °C

f) Initial boiling point and boiling range: No data available

g) Flash point: No data available

h) Evaporation rate: No data available

i) Flammability (solid, gas): No data available

j) Upper/lower flammability or explosive limits: No data available

k) Vapor pressure: No data available

l) Vapor density: No data available

m) Relative density: 1.74 at 68 °F (USCG, 1999) - Denser than water; will sink

n) Water solubility: Solubility: 40 g/ 100 g water at 25 °C; 67 g/100 g water at 100 °C; 3 g/ 100 g alcohol at 25 °C /Zinc acetate dihydrate/

o) Partition coefficient: n-octanol/water: Log P: No data available

p) Auto-ignition 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 information

Topological Polar Surface Area (TPSA): 80.3 Å²

Complexity: 25

10. STABILITY AND REACTIVITY

10.1 Reactivity

No specific reactivity hazards identified under normal handling conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions under normal conditions.

10.4 Conditions to avoid

Avoid heat, sparks, open flames, direct sunlight, and moisture.

10.5 Incompatible materials

Incompatible with zinc salts, alkalies and their carbonates, oxalates, phosphates, and sulfides.

10.6 Hazardous decomposition products

Thermal decomposition may produce: Carbon monoxide (CO), Carbon dioxide (CO□), Nitrogen oxides (NOx).

See also Section 5 (Fire-fighting measures) for combustion products.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

No acute toxicity data available.

Skin corrosion/irritation:

No data available.

Serious eye damage/eye irritation:

Causes serious eye damage (H318).

Respiratory or skin sensitization:

No data available.

Germ cell mutagenicity:

No data available.

Carcinogenicity:

No data available.

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.

11.2 Additional information

Carcinogen classification:

No indication of carcinogenicity to humans (not listed by IARC).

Exposure routes:

Inhalation (L49) ; oral (L49) ; dermal (L49)

Signs and symptoms of exposure:

Ingestion of large doses of zinc causes stomach cramps, nausea, and vomiting. Acute inhalation of large amounts of zinc causes metal fume fever, which is characterized by chills, fever, headache, weakness, dryness of the nose and throat, chest pain, and coughing. Dermal contact with zinc results in skin irritation. (L49)

Data source: Hazardous Substances Data Bank (HSDB) via PubChem.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

TLm Pimephales promelas (fathead minnow) 0.88 ppm/96 hr (soft water) /Conditions of bioassay not specified/

LC50 Eisenia fetida (Earthworm, adult) contact on filter paper 13 ug/sq cm/48 hr (95% confidecne interval: 10-16 ug/sq cm)

LC50 Oncorhynchus mykiss (Rainbow trout) 0.55 mg/L/96 hr; flow through

LC50 Oryzias latipes (Medaka, killfish) 37 mg/L/24 hr; static, 10 °C

For more Ecotoxicity Values (Complete) data for ZINC ACETATE (13 total), please visit the HSDB record page.

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

PBT/vPvB assessment not available.

12.6 Other adverse effects

This substance is classified as hazardous to the aquatic environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste Treatment Methods: Waste material must be disposed of in accordance with national and local regulations. Leave chemicals in original containers and do not mix with other waste. Handle uncleaned containers in the same manner as the product itself.

14. TRANSPORT INFORMATION

14.1 UN number

Not regulated as dangerous goods (research quantities typically exempt).

14.2 UN proper shipping name

Not subject to transport regulations (small quantities for research use).

14.3 Transport hazard class(es)

Not classified as dangerous goods for transport (research quantities).

14.4 Packing group

Not applicable (not regulated as dangerous goods in typical research quantities).

14.5 Environmental hazards

Marine pollutant: Yes (classified as environmentally hazardous per GHS).

14.6 Special precautions for user

Transport in original packaging. Ensure containers are tightly sealed.

For bulk or commercial quantities, consult applicable transport regulations (DOT, IATA, IMDG).

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15. REGULATORY INFORMATION

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

US EPA / TSCA: Subject to EPA TSCA regulations

EU ECHA / REACH: Registered (REACH Active)

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

Acute (short-term) health hazard

Environmental hazard

Massachusetts Right To Know Components:

This material contains components subject to the Massachusetts Right to Know Act. See Section 2 for hazard classification.

Pennsylvania Right To Know Components:

This material contains components subject to the Pennsylvania Right to Know Act. See Section 2 for hazard classification.

New Jersey Right To Know Components:

This material contains components subject to the New Jersey Right to Know Act. See Section 2 for hazard classification.

California Prop. 65 Components:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Other regulatory listings:

- The Australian Inventory of Industrial Chemicals: Chemical: Acetic acid, zinc(2+) salt

- New Jersey Worker and Community Right to Know Act: The New Jersey Worker and Community Right to Know Act requires public and private employers to provide information about hazardous substances at their workplaces. (N.J.S.A. 34:5A-1 et. seq.)

- Federal Drinking Water Guidelines: EPA 5000 ug/l /Zinc/

EPA 2000 ug/l /Zinc, Lifetime health advisory/

- State Drinking Water Guidelines: (AZ) ARIZONA 5000 ug/l /Zinc/

(MN) MINNESOTA 2000 ug/l /Zinc/

- Clean Water Act Requirements: Zinc acetate is designated as a hazardous substance under section 311(b)(2)(A) of the Federal Water Pollution Control Act and further regulated by the Clean Water Act Amendments of 1977 and 1978. These regulations apply to discharges of this substance. This designation includes any isomers and hydra

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this substance.

For research-use-only compounds, no CSA is required under REACH Annex I.

16. OTHER INFORMATION

Revision Date: 2026/09/08

Further Information: The information provided is believed to be correct but is not exhaustive and should be used only as a guideline based on current knowledge. It does not represent a guarantee of the properties of the product. Selleck Chemicals Corporation and its Affiliates shall not be held liable for any damage resulting from handling or contact with the product.