

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Substance name	: Zinc Acetate, Dihydrate
CAS-No.	: 5970-45-6
Product code	: LC27070
Formula	: C ₄ H ₆ O ₄ Zn.2H ₂ O
Synonyms	: acetic acid, zinc salt, dihydrate / zinc diacetate, dihydrate

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Reagent
Restrictions on use	: Not for food, drug or household use

1.3. Supplier

LabChem, Inc.
1010 Jackson's Pointe Ct.
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number	: CHEMTREC: 1-800-424-9300 or +1-703-741-5970
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Serious eye damage/eye irritation Category 2B	H320	Causes eye irritation
Full text of H statements : see section 16		

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)	:	
Signal word (GHS US)	:	Warning
Hazard statements (GHS US)	:	H302 - Harmful if swallowed H320 - Causes eye irritation
Precautionary statements (GHS US)	:	P264 - Wash exposed skin thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P330 - If swallowed, rinse mouth P337+P313 - If eye irritation persists: Get medical advice/attention. P501 - Dispose of contents/container to comply with local, state, and Federal regulations.

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2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	GHS US classification
Zinc Acetate, Dihydrate (Main constituent)	CAS-No.: 5970-45-6	100	Acute Tox. 4 (Oral), H302 Eye Irrit. 2B, H320

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.
First-aid measures after inhalation	: Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.
First-aid measures after skin contact	: If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor/medical service.
First-aid measures after ingestion	: Rinse mouth with water. Immediately consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms	: Harmful if swallowed. Practically non-toxic by inhalation (LC50 inh, rat > 5 mg/l/4h). Causes serious eye damage.
Symptoms/effects after inhalation	: AFTER INHALATION OF DUST: Coughing. Slight irritation.
Symptoms/effects after skin contact	: No effects known.
Symptoms/effects after eye contact	: Corrosion of the eye tissue.
Symptoms/effects after ingestion	: Vomiting. Nausea.
Chronic symptoms	: No effects known.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Adapt extinguishing media to the environment for surrounding fires.

5.2. Specific hazards arising from the chemical

Fire hazard : DIRECT FIRE HAZARD. Non combustible.
Explosion hazard : DIRECT EXPLOSION HAZARD. No direct explosion hazard.
Hazardous decomposition products in case of fire : Upon combustion CO and CO₂ are formed and formation of metal oxides (zinc oxide).

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions : Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.
Protection during firefighting : Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves (EN 374). Safety glasses (EN 166). Protective clothing (EN 14605 or EN 13034).
Emergency procedures : Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes.
Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

6.1.2. For emergency responders

Protective equipment : Do not breathe dust. Equip cleanup crew with proper protection.
Emergency procedures : Stop release. Ventilate area.

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray.
Methods for cleaning up : Prevent dust cloud formation. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing. Keep container tightly closed. Do not discharge the waste into the drain.
Hygiene measures : Observe normal hygiene standards.

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7.2. Conditions for safe storage, including any incompatibilities

Incompatible products	: Strong bases. Strong oxidizers.
Heat-ignition	: KEEP SUBSTANCE AWAY FROM: heat sources.
Prohibitions on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) bases.
Storage area	: Meet the legal requirements. Store at ambient temperature. Store in a dry area.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	: SUITABLE MATERIAL: wood. glass. cardboard. plastics.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses.

Materials for protective clothing:

GIVE GOOD RESISTANCE: rubber. synthetic material

Hand protection:

Protective gloves against chemicals (EN 374)

Eye protection:

Safety glasses (EN 166). In case of dust production: protective goggles (EN 166)

Skin and body protection:

Protective clothing (EN 14605 or EN 13034)

Respiratory protection:

Dust production: dust mask with filter type P2

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Powder.

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Color	: White
Odor	: Mild odour Vinegar odour
Odor threshold	: No data available
pH	: 6 – 7 (5 %)
Melting point	: 237 °C
Freezing point	: No data available
Boiling point	: 258 °C (1013 hPa, EU Method A.2: Boiling point)
Flash point	: Not applicable (solid)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available in the literature
Relative vapor density at 20 °C	: Not applicable (solid)
Particle size	: No data available in the literature
Relative density	: 1.7
Density	: 1735 kg/m ³
Molecular mass	: 219.51 g/mol
Solubility	: Soluble in water. Water: 43 g/100ml (25 °C, Anhydrous form) Ethanol: 3 g/100ml Ether: 0.1 g/100ml
Log Pow	: -1.28 (Anhydrous form, KOWWIN)
Auto-ignition temperature	: > 410 °C (EU Method A.16: Relative Self-Ignition Temperature for Solids, T2)
Decomposition temperature	: No data available in the literature
Viscosity, kinematic	: Not applicable (solid)
Viscosity, dynamic	: Not applicable (solid)
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC content	: 0 %
Other properties	: Substance has acid reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

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LD50 oral rat	> 664 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male, Experimental value, Oral, 14 day(s))
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ATE US (oral)	500 mg/kg body weight
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Skin corrosion/irritation : Not classified
pH: 6 – 7 (5 %)

Serious eye damage/irritation : Causes eye irritation.
pH: 6 – 7 (5 %)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : Not applicable (solid)

Likely routes of exposure : Skin and eye contact. Inhalation.

Potential Adverse human health effects and symptoms : Harmful if swallowed. Practically non-toxic by inhalation (LC50 inh, rat > 5 mg/l/4h). Causes serious eye damage.

Symptoms/effects after inhalation : AFTER INHALATION OF DUST: Coughing. Slight irritation.

Symptoms/effects after skin contact : No effects known.

Symptoms/effects after eye contact : Corrosion of the eye tissue.

Symptoms/effects after ingestion : Vomiting. Nausea.

Chronic symptoms : No effects known.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Dangerous for the environment.

Ecology - air : Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : Toxic to crustacea. Toxic to fishes. Mild water pollutant (surface water). Inhibition of activated sludge. Toxic to algae. May cause eutrophication at very low concentration. Inhibits photosynthesis of algae.

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LC50 fish 1	2.46 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Anhydrous form)
EC50 Daphnia 1	3.72 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Anhydrous form)

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12.2. Persistence and degradability

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Persistence and degradability	Readily biodegradable in water.
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12.3. Bioaccumulative potential

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BCF fish 1	3.16 (BCFWIN, Estimated value, Anhydrous form)
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Log Pow	-1.28 (Anhydrous form, KOWWIN)
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Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
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12.4. Mobility in soil

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Log Koc	0 (log Koc, SRC PCKOCWIN v2.0, Estimated value, Anhydrous form)
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Ecology - soil	No (test)data on mobility of the substance available.
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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations : Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Precipitate/make insoluble.

Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable

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14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

No data available

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

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15.2. International regulations

CANADA

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Listed on the Canadian DSL (Domestic Substances List)
Not listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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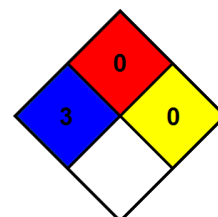
Full text of H- and EUH-statements: see section 16

H302	Harmful if swallowed
H320	Causes eye irritation

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



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Hazard Rating

- Health : 1 Slight Hazard - Irritation or minor reversible injury possible
- Flammability : 0 Minimal Hazard - Materials that will not burn
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
- Personal protection : B - Safety glasses, Gloves

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