

1. Identification

1.1. Product identifier

Product Identity Chemurgic's Zinc 9 Ligno +
Alternate Names Common Name: Fertilizing compound, liquid.
Chemical Description: Zinc lignosulfonate complex, aqueous solution

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

Intended use See Technical Data Sheet.
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Chemurgic Agricultural Chemicals, Inc.
P.O. Box 2106
Turlock, CA 95381

EMERGENCY PHONE NUMBERS:

Company Phone Number DAYS: (209) 634-2951
EVES: (209) 652-7260

24-Hour Emergency Telephone Number INFOTRAC: 1-800-535-5053
EPA National Response Center: (800) 424-8802

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Acute Toxicity (Oral) Category 5; H303
Skin Irritation Category 3; H316
Eye Irritation Category 2A; H319

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Warning

HAZARD STATEMENTS:

H303: May be harmful if swallowed.
H316: Causes mild skin irritation.
H319: Causes serious eye irritation.

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[Prevention]:

P264: Wash hands, face, and other affected areas thoroughly after handling.

P280: Wear eye protection/face protection.

[Response]:

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+313: If skin irritation occurs: Get medical advice / attention.

P337+313: If eye irritation persists: Get medical advice / attention.

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

[Sensitization]:

Not a skin sensitizer.

[Comments Health]:

Read all precautions of product being handled and follow the most restrictive language for all products to provide the safest work environment.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Chemical Name	CAS No.	%
Zinc sulfate	7446-19-7	1.0 – 10

4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. If skin irritation occurs, get medical advice/attention.

Ingestion

If conscious and alert, drink water or milk to dilute, then induce vomiting. Call a physician or Poison Control Center immediately.

4.2. Most important symptoms and effects, both acute and delayed

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Overview

Eyes: Causes moderate but temporary eye irritation which may include redness and itching.
Skin: Mild irritant, especially from prolonged exposure. May cause redness.
Ingestion: May cause stomach cramps and/or nausea.
Inhalation: None expected but may cause mild irritation of nasal mucous membranes.

5. Fire-fighting measures

5.1. Extinguishing media

Water fog, foam, dry chemical, carbon dioxide (CO₂). Do not use water jet as an extinguisher as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Thermal degradation at high temperatures above 575° C (1067° F) may produce sulfur trioxide.

5.3. Advice for fire-fighters

Wear positive pressure, self-contained breathing apparatus and goggles. Contain any liquid runoff.

Unusual Fire and Explosion Hazards: None known.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8). Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.
Prevent product spillage from entering drinking water supplies or streams.

6.3. Methods and material for containment and cleaning up

Collect liquid or absorb onto absorbent material and package for disposal. After removal of spilled product, flush contaminated area thoroughly with water. Do not return spills to original containers for re-use.

7. Handling and storage

7.1. Precautions for safe handling

Transfer products using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc. Wear the appropriate personal protective equipment when handling this product. Avoid contact with eyes, skin and clothing. Avoid inhalation of spray mists. Wash thoroughly with water after handling.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Contact with brass or strong oxidizing agents.

Store in plastic or stainless steel container in a cool, well-ventilated, dry place at temperatures above 40° F. Keep

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container tightly closed. Do not store in contact with brass. Do not store near food or feeds. Do not stack pallets more than two high. Keep out of reach of children.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
7446-19-7	Zinc sulfate	OSHA PEL	TWA: 5 mg/m ³ 8 hours (respirable fraction) TWA 15 mg/m ³ 8 hours (total dust)

8.2. Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes

Chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, do not wear contact lenses when handling.

Skin

Impervious gloves and clothes.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance

Dark Brown, viscous liquid

Odor

Lignin

Odor threshold

Not available

pH

5

Melting point / freezing point

1256° F (680° C) estimated / 15-25° F (-9.44 - -389° C) estimated

Initial boiling point and boiling range

100° C (212° F) estimated

Flash Point

>200° F (ASTM D-56)

Evaporation rate (Ether = 1)

Same as water

Flammability (solid, gas)

Noncombustible

Upper/lower flammability or explosive limits

Lower Explosive Limit: Not available

Upper Explosive Limit: Not available

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Vapor pressure (Pa)	760 mmHg
Vapor Density	< 1.0
Relative Density	Not available
Specific Gravity	1.32
Solubility in Water	Completely miscible
Partition coefficient n-octanol/water (Log Kow)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity (cSt)	Not available
Density	11 lbs/gal

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid contact with incompatible materials.

10.5. Incompatible materials

Contact with brass or strong oxidizing agents.

10.6. Hazardous decomposition products

Thermal degradation at high temperatures above 575° C (1067° F) may produce sulfur trioxide.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation LC50, mg/L/4hr
Chemurgic's Zinc 9 Ligno + (CAS Mixture)	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	5	May be harmful if swallowed.

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Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	3	Causes mild skin irritation.
Serious eye damage/irritation	2A	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable.
Skin sensitization	---	Not a contact sensitizer.
Germ cell mutagenicity	---	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	---	Not considered a carcinogen by IARC, ACGIH, NTP, or OSHA
Reproductive toxicity	---	Not expected to cause reproductive or developmental effects.
STOT-single exposure	---	Not classified.
STOT-repeated exposure	---	Not classified.
Aspiration hazard	---	Not available.
Chronic effects	---	Not known.
Information on likely routes of exposure	Eye contact	Causes moderate but temporary eye irritation.
	Skin contact	Mild irritant, especially from prolonged exposure. May cause redness.
	Inhalation	None expected but may cause mild irritation of nasal mucous membranes.
	Ingestion	May cause stomach cramps and/or nausea.

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Chemurgic's Zinc 9 Ligno + (CAS Mixture)	Not available	Not available	Not available
Zinc sulfate (CAS No. 7446-19-7)	Not Available	Not Available	Not Available

12.2. Persistence and degradability: No data is available.

12.3. Bioaccumulative potential: Not available.

12.4. Mobility in soil: No data available.

12.5. Other adverse effects: No other adverse environmental effects are expected from this component.

13. Disposal considerations

13.1. Waste treatment methods

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Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

DOT CLASSIFICATION: Not regulated by the U.S. DOT as a hazardous material for ground transportation in package sizes less than 3,550 lbs. (317 gallons); 1610 kg (1,200 liters). The DOT information below is for shipments with package sizes equal to or exceeding this value.

DOT – Basic Shipping Requirements:

UN Number: UN3082
Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
(Zinc Sulfate RQ = 3,550 lbs.)
Hazard Class: 9
Packing Group: III
Environmental Hazards: Marine Pollutant: Yes

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

CERCLA Hazardous Substance List Zinc sulfate is listed as a priority pollutant under the Clean Water Act and, as such, falls under the CERCLA spill reporting requirements of 40 CFR 302.

US EPA Tier II Hazards

Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): No

SARA 302 Extremely Hazardous Substance: To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

SARA 311/312 Hazardous Chemical: To the best our knowledge, there are no chemicals at levels which require reporting under this statute.

SARA 313 Components: The following components are subject to reporting levels:
Zinc sulfate monohydrate (CAS No. 7446-19-7)

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

State Right to Know: Zinc sulfate monohydrate (CAS No. 7446-19-7): FL, MA, NJ, PA, RI

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our

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products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

While the information contained herein is based on data considered accurate and was compiled to comply with the Federal Hazard Communication Standard and the California Hazardous Substances Information and Training Act, it is provided for guidance only. Chemurgic Agricultural Chemicals, Inc. does not guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations; in so doing, user assumes all risk in use of the material. The information contained herein is not to be taken as a warranty or representation for which Chemurgic Agricultural Chemicals, Inc. assumes legal responsibility.

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