

Safety Data Sheet

Hoof-Zink[®] E-Z Liquid

*** Section 1 - Chemical Product and Company Identification ***

Product Name:

Hoof-Zink[®] E-Z Liquid

Chemical Name

Inorganic Salt Solution

Recommended Use

Footbath for Bovidae/cloven-hoofed, ruminant mammals

Manufacturer Information

Sirius, LLC
23912 Cedar Hollow Mall
Waterloo, NE 68069

Phone: 800-323-0878
FAX: 402-502-0920
CHEMTREC: (800) 424-9300
US and Canadian Shipping Only- 1-703-527-3887

General Comments

NOTE: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

*** Section 2 - Hazard Identification ***

GHS Classification

Acute toxicity - Oral - Acute Tox: Category 4
Skin corrosion/irritation - Skin Corr: Category 1B
Specific target organ toxicity - Single exposure: Category 3
Hazardous to aquatic environment - Aquatic Acute: Category 1
Hazardous to aquatic environment - Aquatic Chronic: Category 1

GHS Label Elements

Symbol(s)



Signal Word -

Danger

Hazard Statements

Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause respiratory irritation.
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects.

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Precautionary Statements

Prevention

Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.

Response

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Specific treatment (see label). Rinse mouth. Collect spillage.

Storage

Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
7646-85-7	Zinc Chloride	25-72
7732-18-5	Water	28-75
3844-45-9	Blue Color	<1%

Component Information/Information on Non-Hazardous Components

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication). This product is considered hazardous under the criteria specified in the Canadian Workplace Hazardous Materials Information System (WHMIS).

*** Section 4 - First Aid Measures ***

Description of Necessary Measures

First Aid: Eyes

Depending on the duration of overexposure, contact with the eyes will cause irritation, pain, reddening, and blindness. May cause eye damage or burns.

First Aid: Skin

This product is severely irritating to the skin and may cause burns. Depending on the duration of skin contact, skin overexposures will cause reddening, discomfort, irritation, ulceration, and chemical burns. Chemical burns can result in blistering of the skin and scarring. Repeated skin overexposures can result in dermatitis (inflammation and reddening of the skin).

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First Aid: Ingestion

This product may be harmful or fatal if swallowed. If ingested, this product will immediately cause burns to the mouth, throat, esophagus and possibly the digestive tract. Overexposure symptoms include: drowsiness, confusion, difficulty swallowing, a burning sensation in the esophagus and stomach, intense thirst, nausea, abdominal pain, vomiting, diarrhea, stomach perforation, bloody stools or urine, convulsions, and collapse. Large quantity ingestion may be fatal.

First Aid: Inhalation

This product is irritating to the respiratory system. Damage to the tissues of the respiratory system may occur, such as burns and ulcers, especially after prolonged overexposures or overexposures to high concentrations of this product. Additional inhalation symptoms may include the following: choking, coughing, and difficulty breathing. Severe inhalation overexposures can lead to pulmonary edema, pneumonitis, and death.

First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

This product is an aqueous mixture, which will not burn.

Hazardous Combustion Products

Decomposition may yield zinc compounds, hydrogen chloride, and chlorine.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

Fire Fighting Equipment/Instructions

This product is corrosive, and presents a severe contact hazard to fire-fighters. Fire fighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products. If this product is involved in a fire, fire run-off water should be contained to prevent possible environmental damage.

NFPA Ratings: Health: 3 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe



*** Section 6 - Accidental Release Measures ***

Containment Procedures

Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean up. Contain the discharged material and dike the spilled material where possible. Prevent entry into sewers, drains, underground or confined spaces, water intakes and waterways.

Clean-Up Procedures

Absorb spill with inert material. Shovel material into appropriate container for disposal. Decontaminate the area quickly.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

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Special Procedures

Isolate exposure. Wear appropriate personal protective equipment. Follow all Local, State, Federal and Provincial regulations for disposal.

*** Section 7 - Handling and Storage ***

Handling Procedures

Do not get this material in your eyes, on your skin, or on your clothing. Avoid breathing vapors or mists of this product. Wash thoroughly after handling. Do not eat, drink or use tobacco products when handling this material. Use this product with adequate ventilation. Launder work clothes frequently. See Section 8 for appropriate protective clothing, equipment and air monitoring procedures.

Open containers slowly, on a stable surface. Containers of this product must be properly labeled. Empty containers may contain residual liquid or vapors. Empty containers should be handled with care.

Storage Procedures

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see SECTION 10: Stability and Reactivity). Material should be stored in secondary containers, or in a diked area, as appropriate. Keep container tightly closed when not in use. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.

*** Section 8 - Exposure Controls / Personal Protection ***

Component Exposure Limits

Zinc chloride (7646-85-7)

ACGIH:	1 mg/m3 TWA (fume)
	2 mg/m3 STEL (fume)
OSHA (Final):	1 mg/m3 TWA (fume)
OSHA (Vacated):	1 mg/m3 TWA
	2 mg/m3 STEL
NIOSH:	1 mg/m3 TWA (fume)
	2 mg/m3 STEL (fume)
Alberta:	1 mg/m3 TWA (fume)
	2 mg/m3 STEL (fume)
British Columbia:	1 mg/m3 TWA (fume)
	2 mg/m3 STEL (fume)
Manitoba:	1 mg/m3 TWA (fume)
	2 mg/m3 STEL (fume)
New Brunswick:	1 mg/m3 TWA (fume)
	2 mg/m3 STEL (fume)
NW Territories:	1 mg/m3 TWA (fume)
	2 mg/m3 STEL (fume)
Nova Scotia:	1 mg/m3 TWA (fume)
	2 mg/m3 STEL (fume)
Nunavut:	1 mg/m3 TWA (fume)
	2 mg/m3 STEL (fume)
Ontario:	1 mg/m3 TWAEV (fume)
	2 mg/m3 STEV (fume)
Quebec:	1 mg/m3 TWAEV (fume)
Saskatchewan:	1 mg/m3 TWA (fume)

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Yukon: 2 mg/m3 STEL (fume)
 1 mg/m3 TWA (fume)
 2 mg/m3 STEL (fume)

Engineering Controls

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses; chemical goggles (if splashing is possible).

Personal Protective Equipment: Skin

Use impervious gloves. Use of an impervious apron is recommended.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of vapors or mists, appropriate approved NIOSH respiratory protection must be provided. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage must be implemented.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended. An emergency spill response will necessitate the use of more stringent personal protective equipment.

*** Section 9 - Physical & Chemical Properties ***

Appearance: Dark amber liquid
Physical State: Liquid
Vapor Pressure: Not Determined
Boiling Point: Approx. >275°F (>135°C)
Solubility (H2O): Complete

Freezing Point: Not Determined
Octanol/H2O Coeff.: Not Determined

Flash Point: Not Flammable
Upper Flammable Limit (UFL): Not Applicable
Auto Ignition: Not Available
Rate of Burning: Not Applicable

Odor: Odorless
pH: <1.0
Vapor Density: <1.0
Melting Point: Not Determined
Specific Gravity: @ 59°F (15°C): Approx. 1.58 - 1.60
Evaporation Rate: Similar to water

Method Used: Not Applicable
Lower Flammable Limit (LFL): Not Applicable
Flammability Classification: Not Applicable

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable under normal conditions.

Chemical Stability: Conditions to Avoid

Avoid contact with incompatible materials.

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Incompatibility

This product is incompatible with potassium, strong bases and strong oxidizing agents.

Hazardous Decomposition

Decomposition may yield zinc compounds, hydrogen chloride, and chlorine.

Hazardous Polymerization

Will not occur.

*** Section 11 - Toxicological Information ***

Acute and Chronic Toxicity

A: General Product Information

Acute exposure can cause severe irritation and burns of the eyes, skin, gastrointestinal tract and respiratory tract.

Hoof-Zink® E-Z Liquid is an eye, skin and respiratory system irritant. Inhalation of zinc fumes may result in temporary metal fume fever. Other symptoms such as slight leukocytosis, respiratory disease and hypocalcemia have been reported from occupational exposure to zinc compounds

B: Component Analysis - LD50/LC50

Zinc chloride (7646-85-7)

Oral LD50 Rat: 350 mg/kg

50 mg/m3 IDLH (fume)

Carcinogenicity

A: General Product Information

No carcinogenicity data available for this product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

Due to the acidic nature of this product, a release of this product in a river or other body of water (especially in large volumes) will kill fish and other aquatic life.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate

The components of this product are relatively stable under ambient, environmental conditions.

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*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes. If discarded, this product is considered a RCRA corrosive waste, D002. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: **Hoof-Zink® E-Z Liquid**

UN/NA #: UN1840 Hazard Class: 8 Packing Group: III

Required Label(s): CORROSIVE



Canada Transportation of Dangerous Goods Information

Shipping Name: **Hoof-Zink® E-Z Liquid**

UN/NA #: UN1840 Hazard Class: 8 Packing Group: III

Required Label(s): CORROSIVE

International Maritime Dangerous Good

Shipping Name: **Hoof-Zink® E-Z Liquid**

UN/NA #: UN1840 Hazard Class: 8 Packing Group: III

Required Label(s): CORROSIVE

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Zinc chloride (7646-85-7)

CERCLA: 1000 lb final RQ; 454 kg final RQ

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C: Federal Insecticide, Fungicide, and Rodenticide Act

No information is available.

SARA 311/312: Acute Health: Yes Chronic Health: No Fire: No Pressure: No Reactive: No

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Zinc Chloride	7646-5-7	Yes ¹	Yes	Yes ¹	Yes	Yes ¹	Yes

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Zinc Nitrate	7646-85-7	1%

WHMIS Classification: E: Corrosive Material

Additional Regulatory Information

A: General Product Information

No additional information available.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	NDSL	EINECS	AUST	MITI	PHIL	KOREA	ELINCS	CHINA
Zinc Chloride	7732-18-5	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Water	7732-18-5	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes
Color	3844-45-9	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes

*** Section 16 - Other Information ***

Summary of Changes

New SDS: 08/06/2014

Key / Legend

ACGIH = American Conference of Governmental Industrial Hygienists; **AU** = Australia; **BOD** - Biochemical Oxygen Demand; **C** - Celsius; **CA** - Canada; **CAS** = Chemical Abstracts Service; **CERCLA** = Comprehensive Environmental Response, Compensation, and Liability Act; **CFR** = Code of Federal Regulations; **CN** = China; **CPR** = Controlled Products Regulations; **DOT** = Department of Transportation; **DSL** = Domestic Substances List; **EINECS** = European Inventory of Existing Commercial Chemical Substances; **ELINCS** = European List of Notified Chemical Substances; **EmS** = Emergency Response Procedures for Ships Carrying Dangerous Goods; **EPA** = Environmental Protection Agency; **EU** = European Union; **F** - Fahrenheit; **HEPA** = High Efficiency Particulate Air; **HMIS** = Hazardous Material Information System; **HPV** – High Production Volume Chemical (EU); **IARC** = International Agency for Research on Cancer; **IATA** = International Air Transport Association; **ICL** – In Commerce List (Canada); **IDL** - Ingredient Disclosure List; **IDLH** - Immediately Dangerous to Life and Health; **JP**

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= Japan; **KR** = Korea; **LEL** - Lower Explosive Limit; **MITI** = Japan Ministry of International Trade and Industry; **mg/Kg** = milligrams per Kilogram; **mg/L** = milligrams per Liter; **mg/m³** = milligrams per Cubic Meter; **MSHA** = Mine Safety and Health Administration; **NA** = Not Applicable or Not Available; **NFPA** = National Fire Protection Association; **NIOSH** = National Institute for Occupational Safety and Health; **NJTSSR** = New Jersey Trade Secret Registry; **NDSL** = Non-Domestic Substances Inventory; **NTP** = National Toxicology Program; **NZ** = New Zealand; **OSHA** = Occupational Safety and Health Administration; **PH** = Philippines; **RCRA** = Resource Conservation & Recovery Act; **RQ** = Reportable Quantity; **SARA** = Superfund Amendments and Reauthorization Act; **STEL** = Short Term Exposure Limit; **TDG** = Transport Dangerous Goods; **TSCA** = Toxic Substances Control Act; **TWA** - Time Weighted Average; **UEL** - Upper Explosive Limit; **US** - United States; **WHMIS** = Workplace Hazardous Materials Information System.

Other Information

Disclaimer: Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Safety Data Sheet before handling product.

End of Sheet MRD-216