

CATALYTIC INNOVATIONS



SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name: *Zinc Sulfate Solution (10% Zn)*

CAS #: 7733-02-0

Trade Names/Synonyms: Zinc Sulfate Aqueous Solution.

EPA Reg. No.: Not applicable

Use of substance/mixture: For laboratory and manufacturing use only.

Restricted Use: Not for food, drug, or household use.

Manufacturer: Catalytic Innovations, LLC
10027 County Road 2020
Rolla, MO 65401

Emergency Contact Number: 573-578- 1368

SDS CREATION DATE: April 13th, 2023

SDS REVISION DATE: N/A

2. HAZARD IDENTIFICATION

GHS CLASSIFICATIONS: Acute toxicity (Category 4); Hazardous to Aquatic (Category 1).

SIGNAL WORD: Warning!

HAZARD STATEMENTS:

H400: Very toxic to aquatic life.

PRECAUTIONARY STATEMENTS:

Prevention Measures:

P273: Avoid release to the environment.

P501: Dispose of contents/container to comply with local, state, and federal regulations.

P264: Wash exposed skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P273: Avoid release to the environment.

P391: Collect spillage.

P501: Dispose of contents/container to comply with local, state and federal regulations.

Response Measures:

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330: If swallowed, rinse mouth.

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

COMMENTS: KEEP OUT OF REACH OF CHILDREN



3. COMPOSITION

<u>Chemical Ingredients:</u>	<u>Percentage by Weight</u>	<u>CAS No.</u>	<u>GHS-US</u>
Water	66-68%	7732-18-5	Not Classified
Zinc Sulfate	32-34%	7733-02-0	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400

4. FIRST AID MEASURES

EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first minutes then continue rinsing eyes. Call a poison control center or doctor for treatment advice if pain, blinking, or redness persists.

SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water and mild soap for 15-20 minutes followed by a rinse with warm water. Call a poison control center or doctor for treatment advice.

INGESTION: Immediately call a poison control center or doctor. Rinse the mouth. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

INHALATION: Move person to fresh air. Allow the victim to rest. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Symptoms: If ingested, symptoms can be nausea, vomiting, abdominal pain, blood in the stool, decreased renal function, and change in blood composition. Weakens the immune system.

Chronic Symptoms: Skin/rash inflammation. Inflammation/damage to the eye tissue. Gastrointestinal complaints (potentially damage as well).

5. FIRE FIGHTING MEASURES

Flash Point (°F/Test Method): Data unavailable.

Flammable Limits (LFL & UFL): Not flammable.

Extinguishing Media: Foam. Dry Powder. Carbon Dioxide. Water spray. Sand. **DO NOT** use heavy water stream.

Specific Hazards Arising from Chemical: Non-combustible.

Hazardous Combustion Products: No information available.

Precautionary Measures for Fire-Fighters: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Do not enter fire area without proper protective equipment, including respiratory protection (self-contained breathing apparatus).

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled: Soak up the spills with inactive solids, such as clay or diatomaceous earth as soon as possible. Collect the spillage and store away from other materials and chemicals. Wash contaminated clothing and equipment after handling.

Environmental Caution: Keep spills and cleaning runoff out of municipal sewers and open bodies of water. Notify the authorities if liquid enters the sewers or public waters. Avoid release to the environment.

7. HANDLING/STORAGE INFORMATION

Precautions for Safe Handling: Use only outdoors or in a well-ventilated area to avoid formation of vapor. Avoid eye and skin contact and do not breathe in vapor or mist.

Precautions for Storage: Keep container closed when not in use.

Other Comments: No information available.

Observe all federal, state and local regulations when storing this product. It is recommended that storage and transfers of this product be done on an impervious surface to prevent contamination of waterways.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Parameters: For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL)

Engineering Controls: Emergency eye wash fountains and showers should be made available in the immediate vicinity of the chemical or where exposure can occur. Ensure adequate ventilation.

Hygiene Measures: Wash hands and other exposed areas with mild soap and water before eating, drinking, smoking, or when leaving work. Keep away from food or drink.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, wear approved respiratory protection.

Skin/Body Protection: Wear chemically protective gloves. Wear chemically protective boots, aprons, and gauntlets to prevent prolonged or repeated contact with skin.

Eye/Face Protection: Wear safety goggles when handling this product. Use a face shield for additional protection. Contact lenses are not eye protective devices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: Colorless

Odor: None

pH: 2.5-6

Evaporation Rate: No data available.

Flammability: Non-flammable.

Melting Point: 21°C

Freezing Point: No data available.

Boiling Point: 104°C

Flash Point: Non-Flammable

Relative Density: 1.97 g/cm³ (Zinc Sulfate)

Water Solubility: Completely Soluble

Specific Gravity (water = 1.0): 1.405-1.445

Percent Volatile (by volume): No data available.

Vapor Pressure: No data available.

Vapor Density: Vapor is water

Viscosity, Kinematic: No data available.

Partition Coefficient: N-Octanol/Water: No data available.

10. STABILITY AND REACTIVITY

Reactivity: No information available.

Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Direct sunlight. Extremely low or high temperatures. Moisture.

Incompatible Materials: Strong bases. Heat sources.

Hazardous Decomposition Products: Sulfur Compounds.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, ingestion, or skin/eye contact.

Acute Toxicity Effects: Harmful if swallowed.

Component: Zinc Sulfate	
Test	Results
LD50 Oral Rat	1260 mg/kg

Sensitization: No information available.

Eye Irritation: No information available.

Skin Irritation: No information available.

Respiratory Irritation: No information available.

Reproductive Toxicity: No information available.

Developmental Toxicity: No information available.

STOT Single Exposure: No information available.

STOT Repeated Exposure: No information available.

Carcinogenicity: No information available.

Chronic Effects: Skin/rash inflammation. May cause inflammation/damage to eye tissue. May cause gastrointestinal complaints and pain.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY EFFECTS:

Component: Zinc Sulfate	
Test	Results
LC50 Fish 2	4.6 ppm (96 hrs) (<i>Salmo gairdneri</i>)
EC50 Daphnia 2	0.56 mg/l (48 hrs)
TLV Algae 1	0.5 – 0.36 (72 hrs)

PERSISTENCE AND DEGRADABILITY: Not established/Not applicable.

BIOACCUMULATIVE POTENTIAL: Bioaccumable.

Component: Zinc Sulfate	
Test	Results
BCF Fish 1	59-242
BCF Fish 2	59-242

Do not contaminate water supplies. Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

Evaluation is required by the user at the time of disposal. In all cases, disposal should be in accordance with all local, state, and federal laws and regulations. For recycling options please contact product manufacturer.

14. TRANSPORTATION INFORMATION

DOT: Not Regulated under 49 CFR 172.101

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

Component: Zinc Sulfate	
Statute	Status
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA 313 (Tri Reporting)	YES
TSCA	N/A

16. OTHER INFORMATION

Prepared by: ESH Department
SDS Preparation Date: April 11th, 2023
Last Revision Date: April 13th, 2023

NFPA CODES



FOR ADDITIONAL NON-EMERGENCY INFORMATION CONTACT:

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573-578-1368

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Legend:

ACGIH (American Conference of Governmental Industrial Hygienists)

OSHA (Occupational Safety and Health Agency)

NIOSH (National Institute for Occupational Safety and Health)

IARC (International Agency for Research on Cancer)

TSCA (Toxic Substance Control Act)

SARA (Superfund Amendments and Reauthorization Act)

CFR (Code of Federal Regulations)

Dot (Department of Transportation)

CAS (Chemical Abstracts Service)

CWA (Clean Water Act)

CAA (Clean Air Act)