



SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name: *Ammoniated Zinc Chloride (20%)*

CAS #: 52628-25-8

Trade Names/Synonyms: Ammoniated Zinc Chloride, Liquid Fertilizer Micronutrient Compound

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: March 1st, 2012

SDS REVISION DATE: April 20th, 2023

2. HAZARD IDENTIFICATION

GHS CLASSIFICATION: This product is not considered to be or to contain hazardous chemicals based on the evaluations made by our company under the OSHA Hazard Communication Standard, 29 CFR 1920.1200.

SIGNAL WORD: N/A

HAZARD STATEMENTS: N/A

PRECAUTIONARY STATEMENTS: N/A

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 | <95% | 13106-76-8 | |
| Ammonium Zinc Chloride | >5% | 52628-25-8 | |

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: May cause irritation if ingested. May be an irritant of the eyes and skin.

Chronic Symptoms:

5. FIRE FIGHTING MEASURES

Flash Point (°F/Test Method): Data unavailable.
Flammable Limits (LFL & UFL): Not flammable.

Extinguishing Media: For smaller fires, use dry chemical, carbon dioxide, or water spray, as appropriate for surrounding material. For larger fires, use water spray or foam. **DO NOT** use a heavy water stream.

Specific Hazards Arising from Chemical: No information available.

Hazardous Combustion Products: Thermal decomposition may include toxic and hazardous oxides of zinc, nitrogen and chloride.

Precautionary Measures for Fire-Fighters: Exercise caution when fighting any chemical fire. Prevent fire-fighting water that may be contaminated by chemical from entering the environment. Do not enter without personal protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Avoid release to the environment. Dike and dam the release as necessary to prevent contamination of waterways.

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.

7. HANDLING/STORAGE INFORMATION

Precautions for Safe Handling: Use in a well-ventilated area. Avoid eye and skin contact and do not breathe in dust. Wear appropriate PPE when handling this product.

Precautions for Storage: Keep container tightly closed when in use. Do not store the product with highly reactive substances and strong reducing agents. Keep in a dry, cool and well-ventilated place.

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: No occupational exposure limits have been established.

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. Do not bring contaminated clothing outside of work areas.

Respiratory Protection: Not required; voluntary use only with ammonia cartridge respirator.

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: Clear to straw-colored

Odor: Ammonia Odor

pH: 9.5-10.5

Evaporation Rate: No data available.

Flammability: Non-flammable.

Melting Point: No data available.

Freezing Point: No data available.

Boiling Point: 170 OF

Flash Point: Non-flammable.

Relative Density: No data available.

Water Solubility: Dilution with greater than 7 parts water may cause precipitation of zinc hydroxide.

Specific Gravity (water = 1.0): 1.32 (11.0 lbs/gallon)

Percent Volatile (by volume): No data available.

Vapor Pressure: No data available

Vapor Density: No data available

Viscosity: 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: Avoid precipitation of the compound into zinc hydroxide. See section 9.

Incompatible Materials: No information available.

Hazardous Decomposition Products: Thermal decomposition may include toxic and hazardous oxides of zinc, nitrogen and chloride.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye and skin contact.

Acute Toxicity Effects: No information available.

Sensitization: No information available.

Eye Irritation : May cause eye irritation.

Skin Irritation: May cause skin irritation.

Respiratory Irritation: Should not cause serious respiratory irritation.

Reproductive Toxicity: No information available.

Developmental Toxicity: No information available.

STOT Single Exposure: No information available.

STOT Repeated Exposure: No information available.

Carcinogenicity: Not listed as a carcinogen.

Acute Symptoms: No information available.

Chronic Effects: No information available.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY EFFECTS: No information available.

PERSISTENCE AND DEGRADABILITY: Not established.

BIOACCUMULATIVE POTENTIAL: Not established.

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. Avoid release to the environment.

14. TRANSPORTATION INFORMATION

DOT: Not regulate under 49 CFR 172.101

Freight Classification: Fertilizing Compounds (Manufactured Fertilizers), NOI, Liquid(NMFC 68140, Sub 6; Class 70)

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

| Product: Ammoniated Zinc Chloride (20%) | |
|---|----------------------|
| Statute | Status |
| SARA Section 311/312 Hazard Classes | N/A |
| SARA Section 313 (Tri Reporting) | YES (Zinc Compounds) |
| TSCA Listing | YES |
| CWA | N/A |
| CAA | N/A |
| CERCLA | N/A |

16. OTHER INFORMATION

Prepared by: ESH Department

SDS Preparation Date: March 1st, 2012

Last Revision Date: April 20th, 2023

Revision Summary: Format Update

NFPA CODES

N/A

FOR ADDITIONAL NON-EMERGENCY INFORMATION CONTACT:

Catalytic Innovations, LLC
10027 County Road 2020
Rolla, MO 65401
573-578-1368

Note: This SDS was prepared for and shall only be used for this product. The information and recommendations on this SDS are presented in good faith and based on data which is believed to be accurate. Catalytic Innovations, however, makes no guarantees or warranty, either expressed or implied, on the accuracy of this information. The conditions or methods of handling, storage, use, and disposal of this is beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, disposal of this product. If this product is used as a component of another product, the information contained in this SDS may no longer be applicable.

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. This information relates to the specific product designated and may not be valid for such product used in combination with any other materials or in any other processes. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability, or completeness by Catalytic Innovations, LLC. It is the user's responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement. Catalytic Innovations, LLC reserves the right to refuse shipment of this product to any consumer who fails to demonstrate the ability to consistently handle and use it safely and in compliance with all applicable laws, rules and regulations. Such demonstration may require on-site inspection of any or all storage, processing, packaging and other handling systems that come in contact with it. Customers are responsible for compliance with local, state and federal regulations that may be pertinent in the storage, application and disposal of this product.

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)