SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Zinc Acetate, dihydrate solution
SYNONYMS: Acetic Acid Zinc Salt, dihydrate; Zinc Diacetate, dihydrate;
PRODUCT CODES: M000I000140
MANUFACTURER: Nachurs Alpine Solutions
DIVISION: Industrial
ADDRESS: 421 Leader Street
Marion OH 43302
PHONE: 800-622-4877 (USA)
800-265-2268 (CANADA)
EMERGENCY PHONE: United States: Chemtrec: 800-424-9300 (CCN# 15189)
Canada: CANUTEC: 1-613-996-6666
I TECH 877-324-4402
CHEMICAL NAME: Zinc Acetate, dihydrate
CHEMICAL FAMILY: Organic salt
CHEMICAL FORMULA: Zn(CH₃COO)₂·2H₂O
PRODUCT USE: Catalyst, Chemical Manufacturing, Wood Preservation,
PREPARED BY: NASi Technical Services Group

SECTION 2: HAZARDS IDENTIFICATION

GHS ELEMENTS:
Hazard Classification:
- Eye irritation (Category 2B).
- Skin irritation (Category 2).
- Acute toxicity, Oral (Category 4).
- Acute aquatic toxicity (Category 2).
- Chronic aquatic toxicity (Category 2).

Pictogram:
- ! Icon
- Chemical symbol

Signal Word: Warning

Hazard Statements:
- Causes eye irritation.
- Causes skin irritation.
- Harmful if swallowed.
- Toxic to aquatic life.
- Toxic to aquatic life with long lasting effects.

Precautionary Statements:
- Wash exposed skin thoroughly after handling.
- Wear protective gloves.
- Do not eat, drink or smoke when using this product.
- If in 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.
- If on skin: wash with plenty of water. If skin irritation occurs: Get medical advice/attention.
- Take off contaminated clothing and wash before reuse.
- If swallowed: Call a poison center, doctor or physician if you feel unwell. Rinse mouth.
- Dispose of contents and container in accordance with local, state and national regulations.
POTENTIAL HEALTH EFFECTS:

EYES: Hazardous in case of eye contact (irritant).
SKIN: May cause mild irritation.
INGESTION: Hazardous in case of ingestion.
INHALATION: May cause mild irritation.

ACUTE HEALTH HAZARDS: May cause irritation to the eyes and skin.

CHRONIC HEALTH HAZARDS: May cause kidney damage.

CARCINOGENICITY:

OSHA: None Reported
ACGIH: None Reported
NTP: None Reported
IARC: None Reported
OTHER: N/A

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>w/w%</th>
<th>CAS No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc Acetate dihydrate</td>
<td>20 - 28</td>
<td>5970-45-6</td>
</tr>
<tr>
<td>Water</td>
<td>72 - 80</td>
<td>7732-18-5</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

EYES: Wash eyes thoroughly with water for at least 15 minutes. Seek medical attention.
SKIN: Thoroughly wash with soap and water. Seek medical attention if irritation develops or persists.
INGESTION: Do not induce vomiting. If spontaneous vomiting should occur, keep head below hips to prevent aspiration of liquid into lungs. Seek medical attention.
INHALATION: Remove from exposure to area of fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR: Not flammable
FLASH POINT: N/A
METHOD USED: N/A
AUTOIGNITION TEMPERATURE: N/A

NFPA HAZARD CLASSIFICATION:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>REACTIVITY</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>None</td>
</tr>
</tbody>
</table>

HMIS HAZARD CLASSIFICATION

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>REACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

PERSONAL PROTECTION LEVEL: E

EXTINGUISHING MEDIA: Use media suitable for surrounding materials.
**SAFETY DATA SHEET**

**Date:** June 11, 2015

**Name of Product:** **ZINC DIACETATE Dihydrate Solution**

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**ACCIDENTAL RELEASE MEASURES:** Confine the spill to a diked area or sump, if possible, and recover as much of the zinc acetate solution as possible. Place in suitable containers for reuse or disposal.

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**SECTION 7: HANDLING AND STORAGE**

**HANDLING AND STORAGE:** Keep in a dry, cool, well-ventilated place. Keep container tightly closed. Store in suitable containers made of plastic, fiberglass, or stainless steel. Always use good safety and industrial hygienic practices. Wear suitable personal protective equipment.

**OTHER PRECAUTIONS:** Wash hands thoroughly after handling.

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**SECTION 8: EXPOSURE CONTROLSPERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below exposure limits if listed. If operation generates aerosols or mist, use ventilation.

**VENTILATION:** Provide adequate ventilation for local areas.

**RESPIRATORY PROTECTION:** Respiratory protection not normally required unless excessive heat or reaction occurs resulting in release of carbon dioxide or carbon monoxide. In enclosed spaces, these gases can displace oxygen causing possible suffocation, thus use self contained breathing apparatus. Do not use air purifying respirators.

**EYE PROTECTION:** Safety goggles and face shield.

**SKIN PROTECTION:** Suitable gloves, apron and boots.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** For spills, wear splash goggles, full suit, boots, and gloves. A self-contained breathing apparatus should be used to avoid inhalation of product.

**WORK HYGIENIC PRACTICES:** Wash hands thoroughly after handling.

**EXPOSURE GUIDELINES:** No occupational exposure limits have been established at this time.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APPEARANCE:</strong></td>
<td>Clear, nearly colorless to pale yellow liquid.</td>
</tr>
<tr>
<td><strong>ODOR:</strong></td>
<td>Faint acetic odor</td>
</tr>
<tr>
<td><strong>PHYSICAL STATE:</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>pH (as supplied):</strong></td>
<td>5.0 – 5.5</td>
</tr>
<tr>
<td><strong>BOILING POINT:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>MELTING POINT:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>FREEZING POINT:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>SALT-OUT POINT:</strong></td>
<td>23°F</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

Date: June 11, 2015

Name of Product: ZINC DIACETATE Dihydrate Solution

VAPOR PRESSURE (mmHg): Not determined
VAPOR DENSITY (AIR = 1)@: Not determined
SPECIFIC GRAVITY (H₂O = 1): 1.13 – 1.17
SOLUBILITY IN WATER: Completely miscible.
PERCENT SOLIDS: 20 – 28 w/w%
PERCENT VOLATILE (water): 72 - 80 w/w%
VOLATILE ORGANIC COMPOUNDS (VOC): None

SECTION 10: STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>STABLE</th>
<th>UNSTABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>STABILITY:</td>
<td>x</td>
</tr>
<tr>
<td>CONDITIONS TO AVOID (STABILITY):</td>
<td>Contact with strong oxidizing agents.</td>
</tr>
<tr>
<td>INCOMPATIBILITY (MATERIAL TO AVOID):</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>HAZARDOUS DECOMPOSITION/BY-PRODUCTS:</td>
<td>Zinc oxide, carbon monoxide and/or carbon dioxide.</td>
</tr>
<tr>
<td>HAZARDOUS POLYMERIZATION:</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant). If inhaled, causes respiratory irritation.

ACUTE TOXICITY: LD₅₀ (Oral, Rat): 790 mg/kg (anhydrous basis)

CHRONIC TOXICITY: No data available.

Skin Corrosion/Irritation: Skin Rabbit – mild skin irritation – 24h

Serious eye damage/eye irritation: Eye Rabbit – Moderate eye irritation – 24h

Germ cell mutagenicity: Human, lymphocyte, Cytogenetic analysis (anhydrous basis)

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Avoid contact with water; toxic to aquatic life with long lasting effects

Toxicity to fish: LC50 – Oncorhynchus mykiss (rainbow trout) – 1.96 mg/L – 96h (ATE mixture)

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Reclaim and reuse as much as possible. Large spills should be diked to contain the material and prevent contact with waterways and sewer systems. Do not dump into any sewers, on the ground, or into any body of water. Material should be absorbed with absorbent materials and disposed of in accordance with local, state and federal regulations.

RCRA HAZARD CLASS: No

SECTION 14: TRANSPORT INFORMATION
U.S. DEPARTMENT OF TRANSPORTATION (DOT):

PROPER SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (Zinc di (acetate) solution)
HAZARD CLASS: 9
ID NUMBER: UN 3082
PACKING GROUP: III
Reportable Quantity: 1000 lbs

PROPER SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (Zinc di (acetate) solution)
HAZARD CLASS: 9
ID NUMBER: UN 3082
PACKING GROUP: III

AIR TRANSPORTATION (IATA):

PROPER SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (Zinc di (acetate) solution)
HAZARD CLASS: 9
ID NUMBER: UN 3082
PACKING GROUP: III

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA (TOXIC SUBSTANCE CONTROL ACT): Is not listed as CAS # 5970-45-6 as this is the hydrated form. Anhydrous zinc acetate with CAS # 557-34-6 is listed on the TSCA inventory.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):
Section 302: N/A
Section 311/312 HAZARD CATEGORIES: Acute health hazard
Section 313 REPORTABLE INGREDIENTS: Zinc compounds

STATE REGULATIONS: Not listed as zinc acetate dehydrate.

CANADA FEDERAL REGULATIONS:

TDG: Environmentally hazardous substance, liquid, n.o.s. (Zinc di(acetate) solution)
    Hazard Class: 9
    UN 3082
    Packing Group: III

DSL (Domestic Substance List): Yes

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: Technical Services Group

DISCLAIMER: The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Nachurs Alpine Solutions will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.

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