

# SAFETY DATA SHEET

## Revolution 5 Agriculture

Issue Date 06-Mar-2023

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Version 1

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

**Product Name** Enersync Zn

**Other means of identification**

**SDS#** QB-003

**Details of the supplier of the safety data sheet**

**Company Name** Revolution 5 Agriculture  
2258- Magnessen Place  
North Vancouver, B.C.  
V7J 3R6

**Emergency telephone number** 778-835-5251

**Emergency Telephone**

### 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                   |                |
|-----------------------------------|----------------|
| Acute toxicity - Oral             | Not classified |
| Acute toxicity - Dermal           | Not classified |
| Skin corrosion/irritation         | Category 1     |
| Serious eye damage/eye irritation | Category 1     |
| Carcinogenicity                   | Category 1A    |

**Label elements**

**Emergency Overview**

**Danger**

**Hazard statements**

Causes severe skin burns and eye damage  
May cause cancer



**Appearance** Clear

**Physical state** Liquid

**Odor** Acidic

**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

#### Precautionary Statements - Response

Specific Treatment (See Section 4 on the SDS)

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

Immediately call a POISON CENTER or doctor/physician

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

#### Precautionary Statements - Storage

Store locked up

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

##### Other Information

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name            | CAS No.   | Weight-% | Trade Secret |
|--------------------------|-----------|----------|--------------|
| Zinc Sulfate Monohydrate | 7446-19-7 | 10-30    | *            |
| Sulfuric Acid            | 7664-93-9 | 1-5      | *            |

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

#### First aid measures

##### General advice

Immediate medical attention is required.

##### Skin Contact

Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

##### Eye contact

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

##### Inhalation

Remove to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

##### Ingestion

Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

##### Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**

The product causes burn of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

**Environmental precautions**

**Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material. Clean contaminated surface thoroughly. Dike far ahead of liquid spill for later disposal. Take up mechanically, placing in appropriate containers for disposal. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on safe handling** Use personal protective equipment as required. Ensure adequate ventilation, especially in

confined areas. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

#### **Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Incompatible materials** Incompatible with strong acids and bases. Incompatible with oxidizing agents.

### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Control parameters**

**Exposure Guidelines** Exposure guidelines noted for ingredient(s).

| Chemical Name              | ACGIH TLV   | OSHA PEL   | NIOSH IDLH   |
|----------------------------|---|--|--|
| Sulfuric Acid<br>7664-93-9 | TWA: 0.2 mg/m <sup>3</sup> thoracic<br>particulate matter | TWA: 1 mg/m <sup>3</sup><br>(vacated) TWA: 1 mg/m <sup>3</sup> | IDLH: 15 mg/m <sup>3</sup><br>TWA: 1 mg/m <sup>3</sup> |

NIOSH IDLH Immediately Dangerous to Life or Health

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

#### **Appropriate engineering controls**

**Engineering Controls** Showers, Eyewash stations & Ventilation systems.

#### **Individual protection measures, such as personal protective equipment**

**Eye/face protection** Tight sealing safety goggles. Face protection shield.

**Skin and body protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene** When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

### **9. PHYSICAL AND CHEMICAL PROPERTIES**

#### **Information on basic physical and chemical properties**

**Physical state** Liquid  
**Appearance** Clear  
**Color** Transparent/white  
**Odor** Acidic  
**Odor threshold** No Information available

| <u>Property</u>               | <u>Values</u>                      | <u>Remarks • Method</u> |
|-------------------------------|------------------------------------|-------------------------|
| pH                            | <2                                 |                         |
| Specific Gravity              | 1.1                                |                         |
| Viscosity                     | No Information available           |                         |
| Melting point/freezing point  | No Information available           |                         |
| Flash point                   | Above 200°F                        |                         |
| Boiling point / boiling range | >= 100 °C / 212 ° F (at 760 mm Hg) |                         |
| Evaporation rate              | No Information available           |                         |
| Flammability (solid, gas)     | No data available                  |                         |
| Flammability Limits in Air    |                                    |                         |
| Upper flammability limit:     | No Information available           |                         |
| Lower flammability limit:     | No Information available           |                         |
| Vapor pressure                | No Information available           |                         |
| Vapor density                 | No Information available           |                         |
| Water solubility              | Complete                           |                         |
| Partition coefficient         | No Information available           |                         |
| Autoignition temperature      | No Information available           |                         |
| Decomposition temperature     | No Information available           |                         |

**Other Information**

|                 |      |
|-----------------|------|
| Density Lbs/Gal | 9.16 |
| VOC Content (%) | None |

**10. STABILITY AND REACTIVITY****Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Exposure to air or moisture over prolonged periods.

**Incompatible materials**

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

**Hazardous Decomposition Products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

|                            |   |
|----------------------------|---|
| <b>Product Information</b> | The primary effects and toxicity of this material are due to it corrosive nature. |
| <b>Inhalation</b>          | Causes burns.   |
| <b>Eye contact</b>         | Corrosive to the eyes and may cause severe damage including blindness.            |
| <b>Skin Contact</b>        | The product causes burn of eyes, skin and mucous membranes.                       |
| <b>Ingestion</b>           | Causes burns.   |

| Chemical Name              | Oral LD50            | Dermal LD50 | Inhalation LC50                     |
|----------------------------|----------------------|-------------|-------------------------------------|
| Sulfuric Acid<br>7664-93-9 | = 2140 mg/kg ( Rat ) | -           | = 510 mg/m <sup>3</sup> ( Rat ) 2 h |

**Information on toxicological effects**

**Symptoms** No Information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Corrosivity** Causes burns. Extremely corrosive and destructive to tissue. Risk of serious damage to eyes.

**Sensitization** No Information available.

**Germ cell mutagenicity** No Information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name              | ACGIH | IARC    | NTP   | OSHA |
|----------------------------|-------|---------|-------|------|
| Sulfuric Acid<br>7664-93-9 | A2    | Group 1 | Known | X    |

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity** No Information available.

**STOT - single exposure** No Information available.

**STOT - repeated exposure** No Information available.

**Chronic toxicity** Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects. May cause adverse liver effects.

**Target organ effects** EYES, Kidney, Liver, Respiratory system, Skin, Teeth.

**Aspiration hazard** No Information available.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity** 0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

**ATEmix (oral)** 8,513.00 mg/kg

**ATEmix (inhalation-dust/mist)** 8.85 mg/kg

## 12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a severe marine pollutant according to DOT.

**Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|---------------|----------------------|------|-----------|
|               | -                    |      |           |

|                            |   |   |                                     |
|----------------------------|---|---|-------------------------------------|
|                            |   |   |                                     |
| Sulfuric Acid<br>7664-93-9 | - | 500: 96 h Brachydanio rerio mg/L<br>LC50 static | 29: 24 h Daphnia magna mg/L<br>EC50 |

No Information available.

**Breastaccumulation:**  
No Information available.

No Information available

Do not reuse container.

| Chemical Name              | California Hazardous Waste Status |
|----------------------------|-----------------------------------|
| Sulfuric Acid<br>7664-93-9 | Toxic<br>Corrosive                |

Not Regulated

Complies

## Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical

| Chemical Name             | SARA 313 - Threshold Values % |
|---------------------------|-------------------------------|
| Sulfuric Acid - 7664-93-9 | 1.0                           |

**SARA 311/312 Hazard Categories**

|                                   |     |
|-----------------------------------|-----|
| Acute health hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire hazard                       | No  |
| Sudden release of pressure hazard | No  |
| Reactive Hazard                   | No  |

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name              | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|----------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sulfuric Acid<br>7664-93-9 | 1000 lb                     | -                      | -                         | X                          |

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name              | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|----------------------------|--------------------------|----------------|---|
| Sulfuric Acid<br>7664-93-9 | 1000 lb                  | 1000 lb        | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

**US State Regulations****California Proposition 65**

This product contains chemicals known to the state of California to cause cancer, or birth defects or other reproductive harm

| Chemical Name             | California Proposition 65 |
|---------------------------|---------------------------|
| Sulfuric Acid - 7664-93-9 | Carcinogen                |

**U.S. State Right-to-Know Regulations**

| Chemical Name              | New Jersey | Massachusetts | Pennsylvania |
|----------------------------|------------|---------------|--------------|
| Sulfuric Acid<br>7664-93-9 | X          | X             | X            |

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not Applicable

**WHMIS Hazard Class**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

D2A - Very toxic materials

D2B - Toxic materials

E - Corrosive material





16. OTHER INFORMATION

|             |                |   |              |   |                  |   |                                  |     |
|-------------|----------------|---|--------------|---|------------------|---|----------------------------------|-----|
| <b>NFPA</b> | Health hazards | 3 | Flammability | 0 | Instability      | 0 | Physical and Chemical Properties | Yes |
| <b>HMIS</b> | Health hazards | 3 | Flammability | 0 | Physical hazards | 0 | Personal protection              | X   |

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Revision Date

Revision Note

No Information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet