

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 10.24.2014

**Zinc Nitrate, (6H2O)**

**SECTION 1: Identification of the substance/mixture and of the supplier**

**Product name:** Zinc Nitrate, (6H2O)

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** ZN3350

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
860 Gitts Run Road  
Hanover, PA 17331  
1-717-632-1291

**Emergency telephone number:**

**ChemTel: (24-hour)**

+1(800)255-3924

+1(813)248-0585 (International)

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**



**Oxidizing**

Oxidizing liquids, category 2



**Irritant**

Skin irritation, category 2

Eye irritation, category 2A

Acute toxicity (oral), category 4

Specific target organ toxicity - single exposure, category 3, respiratory irritation



**Environmentally Damaging**

Chronic hazards to the aquatic environment, category 2

Acute hazards to the aquatic environment, category 1

Oxidizing liquid 2.

Skin Irritation 2.

Aquatic Chronic Toxicity 2.

Acute Toxicity 4 (oral).

Specific Target Organ Toxicity, Single Exposure (respiratory) 3.

Eye Irritation 2.

Aquatic Acute Toxicity 1.

**Signal word:** Danger

**Hazard statements:**

May intensify fire; oxidizer.

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

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**Precautionary statements:**

If medical advice is needed have product container or label at hand.  
 Keep out of reach of children.  
 Read label before use.  
 Do not eat, drink or smoke when using this product.  
 Keep away from heat/sparks/open flames/hot surfaces – No smoking.  
 Keep/Store away from clothing, combustible materials.  
 Do not breathe dust/fume/gas/mist/vapours/spray.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Wash thoroughly after handling.  
 Take any precaution to avoid mixing with combustibles.  
 Avoid release to the environment.  
 Immediately call a POISON CENTER or doctor/physician.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 Collect spillage.  
 In case of fire: Use ... for extinction.  
 Rinse mouth.  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 If eye irritation persists get medical advice/attention.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.  
 IF ON SKIN: Wash with soap and water.  
 If skin irritation occurs: Get medical advice/attention.  
 Take off contaminated clothing and wash before reuse.  
 Store locked up.  
 Store in a well ventilated place. Keep container tightly closed.  
 Dispose of contents/container.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

| Ingredients:              |                                       |       |
|---------------------------|---------------------------------------|-------|
| CAS 10196-18-6            | Zinc Nitrate, ACS (6H <sub>2</sub> O) | 100 % |
| Percentages are by weight |                                       |       |

**SECTION 4: First aid measures**

**Description of first aid measures**

**After inhalation:**

Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Seek immediate medical attention or advice. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**After skin contact:**

Rinse area with water for 10-15 minutes. Seek immediate medical attention or advice.

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**After eye contact:**

Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention immediately.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water or milk. Seek immediate medical attention or advice.

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

Skin Irritation. Respiratory Irritation. Nausea. Headache. Shortness of breath. Burning of eyes. Redness, tearing. Eye Irritation.

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

If seeking medical attention, provide SDS document to physician. Note to physician: Treat symptomatically.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:**

If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use water spray, dry chemical, carbon dioxide, or chemical foam.

**Unsuitable extinguishing agents:** None

**Special hazards arising from the substance or mixture:**

Combustion products may include carbon oxides or other toxic vapors. Other toxic vapors include zinc and sulfur oxides. Strong oxidizer. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. Containers may explode when heated. This material is an oxidizer; it greatly increases the burning rate of combustible materials. They can spread along the ground and collect in low or confined areas. Contact with other material may cause fire.

**Advice for firefighters:**

**Protective equipment:**

Use NIOSH-approved respiratory protection/breathing apparatus. Wear protective clothing and equipment.

**Additional information (precautions):**

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Do not allow fire protection water to enter sewer or discharge to open water. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep away from combustibles. Use spark-proof tools and explosion-proof equipment. Avoid contact with skin and eyes, and clothing. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to a disposal or recovery container.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Collect liquids using vacuum or by use of non-combustible absorbents.

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

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Collect liquids using vacuum or by use

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of non-combustible absorbents.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Prevent formation of aerosols. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Avoid splashes or spray in enclosed areas. Use spark-proof tools. Remove all sources of ignition. Empty containers may contain product residue and can be hazardous. Do not reuse container.

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

Store in a cool location. Store locked up. Protect from freezing and physical damage. Keep away from sources of ignition. Store protected from moisture and direct sunlight. Use spark-proof tools. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store in cool, dry conditions in well sealed containers. Keep container tightly closed. Do not store near combustible materials or strong bases.

**SECTION 8: Exposure controls/personal protection**



**Control parameters:**

**Appropriate engineering controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

**Respiratory protection:** Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

**Protection of skin:** The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Eye protection:** Safety glasses with side shields or goggles.

**General hygienic measures:** The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

**SECTION 9: Physical and chemical properties**

|                                            |                |                                |                |
|--------------------------------------------|----------------|--------------------------------|----------------|
| <b>Appearance (physical state, color):</b> | White solid    | <b>Explosion limit lower:</b>  | Not determined |
|                                            |                | <b>Explosion limit upper:</b>  | Not determined |
| <b>Odor:</b>                               | Odorless       | <b>Vapor pressure at 20°C:</b> | Not determined |
| <b>Odor threshold:</b>                     | Not determined | <b>Vapor density:</b>          | 10.3           |

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|                                       |                     |                                                 |                                                            |
|---------------------------------------|---------------------|-------------------------------------------------|------------------------------------------------------------|
| <b>pH-value:</b>                      | 5.1 in 5% solution  | <b>Relative density:</b>                        | Not determined                                             |
| <b>Melting/Freezing point:</b>        | 36.4 deg C (97.52F) | <b>Solubilities:</b>                            | Soluble in water.; Molecular Weight: 297.47                |
| <b>Boiling point/Boiling range:</b>   | Not determined      | <b>Partition coefficient (n-octanol/water):</b> | Not determined                                             |
| <b>Flash point (closed cup):</b>      | Not applicable      | <b>Auto/Self-ignition temperature:</b>          | Not determined                                             |
| <b>Evaporation rate:</b>              | Not determined      | <b>Decomposition temperature:</b>               | Not determined                                             |
| <b>Flammability (solid, gaseous):</b> | Not applicable      | <b>Viscosity:</b>                               | a. Kinematic: Not determined<br>b. Dynamic: Not determined |
| <b>Density at 20°C:</b>               | Not determined      |                                                 |                                                            |
| <b>Specific Gravity:</b>              | 2.065               |                                                 |                                                            |

## SECTION 10: Stability and reactivity

**Reactivity:** None

**Chemical stability:**

No decomposition if used and stored according to specifications.

**Possible hazardous reactions:** None

**Conditions to avoid:**

Store away from oxidizing agents, strong acids or bases. Dust. Excess heat. Incompatible materials.  
Combustible materials. Ignition sources. Reducing agents.

**Incompatible materials:**

Calcium. Strontium salts. Alkali carbonates and hydroxides. Silver protein and tannins. lead. Strong bases.  
Reducing agents.

**Hazardous decomposition products:**

Nitrogen oxides (NO<sub>x</sub>). Oxygen. zinc oxides. Nitrogen.

## SECTION 11: Toxicological information

**Acute Toxicity:**

**ATE (oral):** 3477 mg/kg.

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Classified as a skin irritant. Section 2.

**Serious eye damage/irritation:**

Classified as eye damage. Section 2.  
Classified as an eye irritant. Section 2.

**Respiratory or skin sensitization:** No additional information.

**Carcinogenicity:**

**Germ cell mutagenicity:** No additional information.

**Reproductive Toxicity:**

Shown in laboratory animals.

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**STOT-single and repeated exposure:**

Classified as STOT in Section 2.

**Additional toxicological information:**

No additional information.

**SECTION 12: Ecological information**

**Ecotoxicity:** No additional information.

**Persistence and degradability:**

Readily degradable in the environment.

**Bioaccumulative potential:** No additional information.

**Mobility in soil:** No additional information.

**Other adverse effects:**

Zinc and its salts have high acute and chronic toxicity to aquatic life.

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA

1514

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Zinc Nitrate.

**Hazard Class:** 5

**Packing Group:** II.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Zinc Nitrate.

**Hazard Class:** 5

**Packing Group:** II.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None



**SECTION 15: Regulatory information**

**United States (USA)**

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**SARA Section 311/312 (Specific toxic chemical listings):**

Acute, Fire, Reactive

**SARA Section 313 (Specific toxic chemical listings):**

10196-18-6 Zinc (compounds) [313c].

10196-18-6 Zinc (compounds)- no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) :**

All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

None of the ingredients are listed.

**Proposition 65 (California):**

**Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Canada**

**Canadian Domestic Substances List (DSL) :**

All ingredients are listed.

**SECTION 16: Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 1-0-2

**HMIS:** 2-0-2

**GHS Full Text Phrases:** None

**Abbreviations and Acronyms:**

IMDG International Maritime Code for Dangerous Goods.

IATA International Air Transport Association.

GHS Globally Harmonized System of Classification and Labelling of Chemicals.

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ACGIH American Conference of Governmental Industrial Hygienists.  
CAS Chemical Abstracts Service (division of the American Chemical Society).  
NFPA National Fire Protection Association (USA).  
HMIS Hazardous Materials Identification System (USA).  
WHMIS Workplace Hazardous Materials Information System (Canada).  
DNEL Derived No-Effect Level (REACH).  
PNEC. Predicted No-Effect Concentration (REACH).  
CFR Code of Federal Regulations (USA).  
SARA Superfund Amendments and Reauthorization Act (USA).  
RCRA. Resource Conservation and Recovery Act (USA).  
TSCA. Toxic Substances Control Act (USA).  
NPRI National Pollutant Release Inventory (Canada).  
DOT US Department of Transportation.