

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 1 of 8

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: S25640

Recommended uses of the product and restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

Fisher Science Education
6771 Silver Crest Road, Nazareth, PA 18064
(724)517-1954

Emergency telephone number:

Fisher Science Education
Emergency Telephone No.: 800-535-5053

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, dermal, inhalation), category 4

Specific target organ toxicity following single exposure, category 3



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.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 2 of 8

Zinc Nitrate, (6H2O)

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

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.

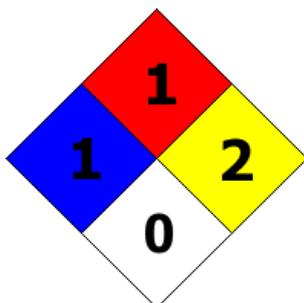
Dispose of contents/container to

Other Non-GHS Classification:

WHMIS



NFPA/HMIS



NFPA SCALE (0-4)

Health	2
Flammability	1
Physical Hazard	2
Personal Protection	X

HMIS RATINGS (0-4)

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 3 of 8

Zinc Nitrate, (6H2O)

SECTION 3: Composition/information on ingredients

Ingredients:		
CAS 10196-18-6	Zinc Nitrate, ACS (6H2O)	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.

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

Advice for firefighters:

Protective equipment:

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

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 4 of 8

Zinc Nitrate, (6H₂O)

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 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 retain 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 sealed. Do not store near combustible materials or strong bases.

SECTION 8: Exposure controls/personal protection



Control Parameters:

No applicable occupational exposure limits.

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.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 5 of 8

Zinc Nitrate, (6H₂O)

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

Appearance (physical state, color):	White solid	Explosion limit lower:	Not determined
		Explosion limit upper:	Not determined
Odor:	Odorless	Vapor pressure at 20°C:	Not determined
Odor threshold:	Not determined	Vapor density:	10.3
pH-value:	5.1 in 5% solution	Relative density:	Not determined
Melting/Freezing point:	36.4 deg C (97.52F)	Solubilities:	Soluble in water. Molecular Weight: 297.47.
Boiling point/Boiling range:	Not determined	Partition coefficient (n-octanol/water):	Not determined
Flash point (closed cup):	Not applicable	Auto/Self-ignition temperature:	Not determined
Evaporation rate:	Not determined	Decomposition temperature:	Not determined
Flammability (solid, gaseous):	Not applicable	Viscosity:	a. Kinematic: Not determined b. Dynamic: Not determined
Density at 20°C:	Not determined	Specific Gravity:	: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_x). Oxygen. zinc oxides. Nitrogen.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 6 of 8

Zinc Nitrate, (6H₂O)

SECTION 11: Toxicological information

Acute Toxicity:

Oral:

1190mg/kg LD50 oral-rat: (Zinc Nitrate) 10196-18-6

Chronic Toxicity: No additional information.

Corrosion Irritation:

Dermal:

Section 2 Classified as a skin irritant

Ocular:

Section 2 Classified as eye damage

Section 2 Classified as an eye irritant

Sensitization: No additional information.

Numerical Measures:

ATE (oral): 3477 mg/kg

Carcinogenicity: No additional information.

Mutagenicity: No additional information.

Reproductive Toxicity:

Shown in laboratory animals.

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

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 7 of 8

Zinc Nitrate, (6H2O)

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)

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

Reactive, Acute, Fire

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.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients are listed.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 8 of 8

Zinc Nitrate, (6H₂O)

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the 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.

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.
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.

Effective date: 10.24.2014

Last updated: 06.17.2015