

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

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Zinc Nitrate, 0.1M

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

Product name : Zinc Nitrate, 0.1M

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25901

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

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

SECTION 2 : Hazards identification

Classification of the substance or mixture:



Irritant

Skin irritation, category 2
Eye irritation, category 2A
Specific target organ toxicity following single exposure, category 3



Oxidizing

Oxidizing solids, category 3

Oxidizing Solids 2

Skin Irrit. 2

Eye Irrit. 2A

STOT SE 3

Signal word : Danger

Hazard statements:

May intensify fire; oxidizer

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation

Precautionary statements:

If medical advice is needed, have product container or label at hand

Keep out of reach of children

Read label before use

Keep away from heat/sparks/open flames/hot surfaces. No smoking

Keep/Store away from clothing/combustible materials

Take any precaution to avoid mixing with combustibles

Wear protective gloves/protective clothing/eye protection/face protection

Wash skin thoroughly after handling

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Wear protective gloves/protective clothing/eye protection/face protection

Avoid breathing dust/fume/gas/mist/vapours/spray

Use only outdoors or in a well-ventilated area

In case of fire: Use agents recommended in section 5 for extinction

IF ON SKIN: Wash with soap and water

Specific treatment (see supplemental first aid instructions on this label)

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

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

Call a POISON CENTER or doctor/physician if you feel unwell

Store in a well ventilated place. Keep container tightly closed

Store locked up

Dispose of contents and container as instructed in Section 13

Other Non-GHS Classification:

WHMIS



NFPA/HMIS



NFPA SCALE (0-4)

Health	1
Flammability	0
Physical Hazard	1
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:

CAS 7732-18-5	Deionized Water	97.03 %
CAS 7779-88-9	Zinc Nitrate, ACS (6H2O)	2.97 %
Percentages are by weight		

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical attention.

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After skin contact: Wash affected area with soap and water. Rinse thoroughly. Seek medical attention.

After eye contact: Immediately seek medical attention. Protect unexposed eye. Remove contact lenses while rinsing. Flush exposed eye gently using water for 15-20 minutes.

After swallowing: Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Immediately seek medical attention.

Most important symptoms and effects, both acute and delayed:

Irritation, Nausea, Headache, Shortness of breath.;

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam. Use water spray to cool unopened containers.

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

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

Advice for firefighters:

Protective equipment: Wear protective eyewear, gloves, and clothing. Refer to Section 8.

Additional information (precautions):

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Ensure that air-handling systems are operational.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13

Methods and material for containment and cleaning up:

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

Reference to other sections:

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.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Protect from freezing and physical damage. Store away from incompatible materials. Provide ventilation for containers. Keep container tightly sealed. Keep away from food and beverages.

SECTION 8 : Exposure controls/personal protection

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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.

Respiratory protection:

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Protection of skin:

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Eye protection:

Safety glasses with side shields or goggles. Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

General hygienic measures:

Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Before reusing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	Clear, colorless liquid	Explosion limit lower: Explosion limit upper:	Not Determined Not Determined
Odor:	Odorless	Vapor pressure:	2.3 kPa at 20°C
Odor threshold:	Not Determined	Vapor density:	0.62 (Air = 1)
pH-value:	Not Determined	Relative density:	1 (Water = 1)
Melting/Freezing point:	Approximately 0°C	Solubilities:	Soluble in water
Boiling point/Boiling range:	Approximately 100°C	Partition coefficient (n-octanol/water):	Not Determined
Flash point (closed cup):	Not Determined	Auto/Self-ignition temperature:	Not Determined
Evaporation rate:	Not Determined	Decomposition temperature:	Not Determined
Flammability (solid,gaseous):	Not Determined	Viscosity:	a. Kinematic: Not Determined b. Dynamic: 0.952 mPas at 20 °C
Density: Not Determined			

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SECTION 10 : Stability and reactivity

Reactivity: Reacts with metallic powders.

Chemical stability: Stable under normal conditions.

Possible hazardous reactions:

Conditions to avoid: Incompatible materials. Excessive heat. Combustible materials. Reducing agents.

Incompatible materials: Metal powders, cyanides, sodium hypophosphite, stannous chloride, phosphorous, thiocyanates, carbon, metallic sulfides, sulfur, organic materials. May react with reducing agents and combustible materials at elevated temperatures.

Hazardous decomposition products: Zinc or zinc oxides. Nitrogen or nitrogen oxides.

SECTION 11 : Toxicological information

Acute Toxicity:		
Oral:	7779-88-6	LD50 Oral - Rat - 1,190 mg/kg
Chronic Toxicity: No additional information.		
Corrosion Irritation:		
Dermal:	10196-18-6	Skin - Rabbit Result : Severe skin irritation - 24 h
Ocular:	10196-18-6	Eyes - Rabbit Result : Moderate eye irritation - 24 h
Sensitization:		No additional information.
Single Target Organ (STOT):		10196-18-6: Inhalation - May cause respiratory irritation
Numerical Measures:		No additional information.
Carcinogenicity:		No additional information.
Mutagenicity:		No additional information.
Reproductive Toxicity:		No additional information.

SECTION 12 : Ecological information

Ecotoxicity Persistence and degradability:

Bioaccumulative potential:

Mobility in soil:

Other adverse effects:

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

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SECTION 14 : Transport information

UN-Number

Not Regulated.

UN proper shipping name

Not Regulated.

Transport hazard class(es)

Packing group: Not Regulated

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

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

Reactive, Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

10196-18-6 Zinc nitrate hexahydrate

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

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

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

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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:

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

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