



Qualikems

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Material Safety Data Sheet
Zinc Nitrate Hexahydrate

Section 1 - Chemical Product and Company Identification

MSDS Name: Zinc Nitrate Hexahydrate

Synonyms: Nitric Acid, Zinc Salt, Hexahydrate

Section 2 - Composition, Information on Ingredients

| CAS# | Chemical Name | Percent | EINECS/ELINCS |
|------------|--------------------------|---------|---------------|
| 10196-18-6 | Zinc Nitrate Hexahydrate | 100 | unlisted |

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white solid.

Danger! Strong oxidizer. Contact with other material may cause a fire. May be harmful if swallowed. May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Target Organs: None.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause severe skin irritation.

Ingestion: May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. May be harmful if swallowed.

Inhalation: May cause respiratory tract irritation. May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, tachycardia, dyspnea (labored breathing), and death.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid if irritation or symptoms occur.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. 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. Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media: Use water only! Do NOT get water inside containers. Contact professional fire-fighters immediately. Cool containers with flooding quantities of water until well after fire is out. For small fires, do NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY. For large fires, flood fire area with water from a distance.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Do not get water inside containers.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with clothing and other combustible materials. Do not get on skin or in eyes. Avoid ingestion and inhalation. Keep from contact with clothing and other combustible materials. Discard contaminated shoes.

Storage: Keep away from heat, sparks, and flame. Do not store near combustible materials. Store in a cool, dry place. Keep containers tightly closed. Keep away from strong bases.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: white
Odor: odorless
pH: 5.1 in 5% solution.
Vapor Pressure: Not available.
Vapor Density: 10.3
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: Not applicable.
Freezing/Melting Point: 36.4 deg C
Decomposition Temperature: 105-131 deg C -
Solubility: Soluble in water.
Specific Gravity/Density: 2.065
Molecular Formula: $Zn(NO_3)_2 \cdot 6H_2O$
Molecular Weight: 297.4702

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, ignition sources, dust generation, combustible materials, reducing agents.
Incompatibilities with Other Materials: Reducing agents.
Hazardous Decomposition Products: Nitrogen oxides, nitrogen, toxic fumes of zinc oxide.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 10196-18-6: ZH4775000

LD50/LC50:

CAS# 10196-18-6:

Draize test, rabbit, eye: 20 mg/24H Moderate;

Draize test, rabbit, skin: 500 mg/24H Severe;

Oral, mouse: LD50 = 926 mg/kg;

Oral, rat: LD50 = 1190 mg/kg;

Carcinogenicity:

CAS# 10196-18-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

| | IATA | |
|-----------------------|--------------|--|
| Shipping Name: | ZINC NITRATE | |
| Hazard Class: | 5.1 | |
| UN Number: | UN1514 | |
| Packing Group: | II | |

Section 15 - Regulatory Information

Hazard Symbols:

O

Risk Phrases:

R 8 Contact with combustible material may cause fire.

Safety Phrases:

Section 16 - Additional Information

MSDS Creation Date: 8/21/2000

Revision #3 Date: 10/03/2005

Revision #4 Date: 09/03/2010

Revision #5 Date: 08/03/2015

Revision #6 Date: 07/03/2020

Revision #7 Date: 06/03/2025

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