Material Safety Data Sheet
Zinc Nitrate Hexahydrate

MSDS# 25470

Section 1 - Chemical Product and Company Identification

MSDS Name: Zinc Nitrate Hexahydrate
Catalog Numbers: S80248-1, S80248-2, Z45-500
Synonyms: Nitric Acid, Zinc Salt, Hexahydrate

Company Identification: Fisher Scientific
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 10196-18-6
Chemical Name: Zinc Nitrate Hexahydrate
%: 100
EINECS#: unlisted

Hazard Symbols: XN O
Risk Phrases: 22 36/38 8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Danger! Strong oxidizer. Contact with other material may cause a fire. Hygroscopic (absorbs moisture from the air).
Harmful if swallowed. Causes eye and skin irritation. Target Organs: Eyes, skin.

Potential Health Effects
Eye: Causes eye irritation.
Skin: Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion: Harmful if swallowed. May cause irritation of the digestive tract.
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately 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. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
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 breathing is difficult, give oxygen. Get medical aid. 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.
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.

Extinguishing Media:
Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Explosion Limits:
Lower: Not available
Upper: Not available

NFPA Rating: ; instability: OX

Section 6 - Accidental Release Measures

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

Spills/Leaks:
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. Provide ventilation.

Section 7 - Handling and Storage

Handling:
Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage:
Do not store near combustible materials. Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc Nitrate Hexahydrate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
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</tbody>
</table>

OSHA Vacated PELs: Zinc Nitrate Hexahydrate: None listed

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.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear a chemical apron. Wear appropriate clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Crystals
Color: 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 (97.52°F)
Decomposition Temperature:
Solubility in water: Soluble in water.
Specific Gravity/Density: 2.065
Molecular Formula: Zn(NO3)2·6H2O
Molecular Weight: 297.4702

Section 10 - Stability and Reactivity

Chemical Stability: Hygroscopic: absorbs moisture or water from the air.
Conditions to Avoid: Incompatible materials, dust generation, combustible materials, moist air.
Incompatibilities with Other Materials: Strong reducing agents.
Hazardous Decomposition Products: Nitrogen oxides.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 10196-18-6: ZH4775000
RTECS:
CAS# 10196-18-6: Draize test, rabbit, eye: 20 mg/24H Moderate;
Draize test, rabbit, skin: 500 mg/24H Severe;
LD50/LC50: Oral, mouse: LD50 = 926 mg/kg;
Oral, rat: LD50 = 1190 mg/kg;
Carcinogenicity: Zinc Nitrate Hexahydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: ZINC NITRATE Zinc nitrate hexahydrate
Hazard Class: 5.1
UN Number: UN1514
Packing Group: II
Canada TDG
Shipping Name: ZINC NITRATE
Hazard Class: 5.1
UN Number: UN1514
Packing Group: II

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols: XN O
Risk Phrases:
R 22 Harmful if swallowed.
R 36/38 Irritating to eyes and skin.
R 8 Contact with combustible material may cause fire.
Safety Phrases:
S 17 Keep away from combustible material.
S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 10196-18-6: 1

Canada

Canadian WHMIS Classifications: C, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 10196-18-6 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 10196-18-6 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory (40CFR720.3(u)(2)).

Section 16 - Other Information

MSDS Creation Date: 8/21/1998

Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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