

SC15888-012KG
SC15888-2.5KG
SC15888-500GM



ZINC NITRATE

Material Safety Data Sheet

Mallinckrodt Inc.
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Emergency Telephone Number
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Effective Date: 07-17-85

PRODUCT IDENTIFICATION:

Synonyms: Nitric acid, zinc salt

Formula CAS No.: 10196-18-6 (Hexahydrate)
TSCA CAS No.: 7779-88-6 (Anhydrous)

Molecular Weight: ca. 207

Hazardous Ingredients:
None

Chemical Formula: $Zn(NO_3)_2 \cdot xH_2O$

PRECAUTIONARY MEASURES

**DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
HARMFUL IF SWALLOWED OR INHALED. CAUSES BURNS.**

Keep from contact with clothing and other combustible materials.
Store in a tightly closed container.
Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.
Avoid breathing dust.

EMERGENCY/FIRST AID

If swallowed, DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. In all cases call a physician.

SEE SECTION 5.

DOT Hazard Class: Oxidizer

Physical Data

SECTION 1

Appearance: Colorless or white crystals or flakes.

Odor: Slight nitric odor.

Solubility: 200 g/100g water

Boiling Point: Decomposes @ca 105°C (221°F)

Vapor Density (Air=1): No information found.

Melting Point: ca 36°C (97°F)

Vapor Pressure (mm Hg): No information found.

Specific Gravity: 2.07

Evaporation Rate: Not applicable.

Fire and Explosion Information

SECTION 2

Fire:

Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Increases flammability of any combustible substance in contact with it.

Explosion:

Strong oxidants may explode when shocked, or if exposed to heat, flame, or friction. Also may act as initiation source for dust or vapor explosions.

Fire Extinguishing Media:

Water or water spray in early stages of fire. Foam or dry chemical may also be used.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Molten zinc nitrate can be spread by hose streams. Toxic oxides of nitrogen or zinc can form in fire situations.

Reactivity Data

SECTION 3

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Involvement in a fire can cause decomposition to nitric oxides and zinc oxide.

Hazardous Polymerization:

This substance does not polymerize.

Incompatibilities:

Metal powders, cyanides, sodium hypophosphite, stannous chloride, phosphorus, thiocyanates, organic materials. Substance is capable of reacting rapidly with reducing agents and combustible materials at elevated temperatures.

Leak/Spill Disposal Information

SECTION 4

Ventilate area of leak or spill. Clean-up personnel may require respiratory protection from dust.

Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

Disposal: Whatever cannot be saved for reclamation may be delivered to an approved waste disposal facility.

Ensure compliance with local, state and federal regulations.

Zinc Nitrate

Health Hazard Information

SECTION 5

A. Exposure/Health Effects

Inhalation: May be irritating to the respiratory tract, causing coughing, labored breathing and possibly sore throat.

Ingestion: Corrosive irritant. If appreciable amounts are ingested, abdominal pain, cramps and nausea may result together with faintness and bluish lips and skin.

Skin Contact: Irritant, possibly corrosive on prolonged contact. Symptoms are redness, pain, possible burning of skin.

Eye Contact: Irritant. Redness, tears and pain, possibly blurred vision.

Chronic Exposure: Zinc salts are eliminated fairly promptly, making chronic effects less than acute. Skin conditions, i.e., dermatitis or granuloma, may result.

Aggravation of Pre-existing Conditions: Persons with skin disorders or eye problems may be more susceptible to contact with zinc nitrate.

B. FIRST AID

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion: If swallowed, DO NOT induce vomiting. Give large quantities of water or milk if available. Call a physician immediately. Never give anything by mouth to an unconscious person.

Skin Exposure: Remove any contaminated clothing. Wipe off excess from skin. Wash skin with plenty of water for at least 15 minutes. Get medical attention promptly.

Eye Exposure: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA (RTECS, 1982)

No LD50/LC50 information found relating to normal routes of occupational exposure.

Occupational Control Measures

SECTION 6

Airborne Exposure Limits: None established.

Ventilation System: In general, dilution ventilation is a satisfactory health hazard control for this substance. However, conditions of use create discomfort to the worker, local exhaust system should be considered.

Personal Respirators: For conditions of use where exposure to the dust is apparent, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary. (NIOSH Approved)

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information SECTION 7

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Store separately from reactive or combustible materials, and out of direct sunlight.

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