

Mallinckrodt

SODIUM AZIDE

Material Safety Data Sheet

Emergency Telephone Number
314-982-5000

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P.O. Box M
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Effective Date: 08-28-85

PRODUCT IDENTIFICATION:

Synonyms: Azide; Azium; Salts

Formula CAS No.: 2628-22-8

Hazardous Ingredients:
Not applicable.

Molecular Weight: 65.02

Chemical Formula: NaN_3

PRECAUTIONARY MEASURES

DANGER! MAY BE FATAL IF SWALLOWED OR ABSORBED THROUGH SKIN. HARMFUL IF INHALED. HAZARDOUS SOLID. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE OR EXPLOSION. CAUSES IRRITATION.

Do not get in eyes, on skin, or on clothing.
Keep container closed and away from acids.
Use with adequate ventilation.
Wash thoroughly after handling.
Keep away from heat, sparks and flame.
Avoid friction or rough handling because of fire and explosion hazard.

EMERGENCY/FIRST AID

In all cases call a physician immediately by giving two glasses of water and if swallowed, induce vomiting immediately. 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 case of headache or faintness have patient lie flat and keep warm. SEE SECTION 5.

DOT Hazard Class: Poison-B

Physical Data

SECTION 1

Appearance: Colorless crystals.

Odor: Characteristic odor.

Solubility: 42 g/100 g water @ 17°C (63°F)

Boiling Point: Not applicable.

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

Melting Point: 300°C (572°F) decomposes

Vapor Pressure (mm Hg): No information found.

Specific Gravity: 1.85

Evaporation Rate: No information found.

-2-

Fire and Explosion Information

SECTION 2

Fire:

Combustible solid. May pose a fire hazard upon heating, shock, concussion, or friction.

Explosion:

Decomposes explosively upon heating, shock, concussion, or friction. Reacts with both copper and lead to produce explosive azides. Explosions in laboratory plumbing containing these metals is possible.

Fire Extinguishing Media:

Dry chemical, foam or carbon dioxide.

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.

Reactivity Data

SECTION 3

Stability:

Unstable, explosive. See Section 2.

Hazardous Decomposition Products:

Oxides of nitrogen. Explodes upon decomposition.

Hazardous Polymerization:

This substance does not polymerize.

Incompatibilities:

Benzoyl chloride plus potassium hydroxide, bromine, carbon disulfide, chloroethyl chloride, copper, dibromononitrite, diethyl sulfate, lead, barium carbonates, sulfuric acid, water, and nitric acid.

Leak/Spill/Disposal Information

SECTION 4

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

Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate dust.

Disposal: Unrecovered cannot be saved for reclamation may be disposed in an RCMA approved hazardous waste facility. Do not flush to the sewer. Can form explosive mixtures.

Reportable Quantity (RQ)(CWA/CERCLA) : 1000 lbs.

Ensure compliance with local, state and federal regulations.

Health Hazard Information

A. Exposure/Health Effects

SECTION 3

Inhalation:

May cause irritation to the respiratory tract and mucous membranes, sore throat, coughing, dizziness, shortness of breath, and fainting. May be absorbed through inhalation. Symptoms may parallel ingestion.

Ingestion:

Highly Toxic! May cause breathlessness and rapid heart beat within 5 minutes. Nausea, vomiting, headache, restlessness, and diarrhea may occur within 15 minutes. Other symptoms may include low blood pressure, abnormal breathing, reduced body temperature, reduced body pH, convulsions, collapse and death.

Skin Contact:

Highly Toxic! Causes irritation, redness, and pain. May be absorbed through the skin; symptoms may parallel ingestion.

Eye Contact:

Causes irritation, redness, pain, and blurred vision.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

No information found.

B. FIRST AID

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call physician immediately.

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)

Oral rat LD50: 27 mg/kg.

Skin rabbit LD50: 20 mg/kg.

Mutation data references cited.

Occupational Control Measures

SECTION 4

Airborne Exposure Limits:

-ACGIH Threshold Limit Value (TLV):
0.1 ppm (TWA) ceiling limit

Ventilation System:

A system of local exhaust is recommended to keep employee exposures below the Airborne Exposure Limit. Local exhaust ventilation is generally preferred because it can control the emissions of the dust or vapor at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved)

If the TLV is exceeded, a dust/mist respirator with chemical goggles may be worn, in general, up to ten times the TLV. Consult respirator supplier for limitations. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

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 container from physical damage. Isolate from incompatible substances.

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