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|---------------------|---|
| Health | 3 |
| Fire | 1 |
| Reactivity | 0 |
| Personal Protection | J |

Material Safety Data Sheet

Phenylmercuric nitrate MSDS

Section 1: Chemical Product and Company Identification

Product Name: Phenylmercuric nitrate

Catalog Codes: SLP2713

CAS#: 55-68-5

RTECS: OW8400000

TSCA: TSCA 8(b) inventory: Phenylmercuric nitrate

CI#: Not available.

Synonym: Mersolite 7, Phermernite, Phenalco, Phenitol; Mercuriphenyl nitrate; Merphenyl nitrate; Phenylmercury nitrate; nitric acid, phenylmercury salt; Phenmerzyl nitrate

Chemical Name: Mercury, Nitratophenyl-

Chemical Formula: C₆H₅HgNO₃

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

| Name | CAS # | % by Weight |
|------------------------|---------|-------------|
| Phenylmercuric nitrate | 55-68-5 | 100 |

Toxicological Data on Ingredients: Phenylmercuric nitrate LD50: Not available. LC50: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (permeator). Corrosive to eyes and skin. The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

Slightly hazardous in case of skin contact (sensitizer). CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, liver, skin, eyes, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated

skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...). Some metallic oxides.

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of heat. Non-flammable in presence of open flames and sparks, of shocks.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of heat.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards:

When heated to decomposition it emits toxic fumes (e.g. Mercury vapor). Non-combustible. When heated, the material itself does not burn or burns with difficulty.

Special Remarks on Explosion Hazards: Containers may explode when heated.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:

Corrosive solid. Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep locked up.. Keep container dry. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 0.1 (mg(Hg)/m) from ACGIH (TLV) [United States] SKIN TWA: 0.01 (mg(Hg)/m) from OSHA (PEL) [United States]
Inhalation TWA: 0.1 (mg(Hg)/m) from NIOSH [United States] SKIN TWA: 0.1 (mg(Hg)/m) from ACGIH (TLV) [United States]
Inhalation Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Crystals solid.)

Odor: Not available.

Taste: Not available.

Molecular Weight: 339.71 g/mole

Color: Not available.

pH (1% soln/water): Not applicable.

Boiling Point: Not available.

Melting Point: 176°C (348.8°F) - 186 C

Critical Temperature: Not available.

Specific Gravity: Not available.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility:

Insoluble in cold water. Slightly soluble in alcohol, and glycerin. More soluble in the presence of either nitric acid or alkali hydroxides.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Reactive with reducing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans: May cause damage to the following organs: kidneys, liver, skin, eyes, central nervous system (CNS).

Other Toxic Effects on Humans:

Very hazardous in case of skin contact (irritant), of ingestion, . Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive), of inhalation (lung corrosive).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

This product is a Mercury compound. Mercury may cause adverse reproductive effects and birth defects (teratogenic). Mercury may cause cancer. Mercury may affect genetic material (mutagenic)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects. Skin: Causes skin irritation with possible burns. It can be absorbed through the skin. Eyes: Causes eye irritation. Exposure to vapor may cause conjunctivitis, ulceration of the cornea, discoloration of the front surface of the lens, and possible burns. Inhalation: Inhalation of high concentrations of vapor or mist can cause respiratory tract irritation and possible chemical burns to the respiratory tract, corrosive bronchitis, interstitial pneumonia, severe pulmonary

irritation, lung lesions, and death from respiratory insufficiency. Mercury vapor or mist can be absorbed by the respiratory tract. Acute mercury intoxication is rare, but can occur after inhalation of large amounts. Vapor inhalation is the most likely route of exposure. It may cause flu-like "fume metal fever" with chills, malaise, respiratory symptoms (chest tightness, difficulty breathing, coughing), fever, chills, gastrointestinal symptoms (dry mouth, nausea, vomiting, diarrhea, abdominal pain, hypermotility, stomatitis, salivation, metallic taste), and gingivitis. It may affect behavior/central nervous system/peripheral nervous system (depression, anxiety, decreased strength, muscle aches/weakness, lethargy, fatigue, headache, insomnia, dizziness, clumsiness or muscle incoordination, short-term memory loss, slurred speech, tremor, irritability, emotional instability, apathy, hallucinations, mania, xenophobia, sensitivity, impaired concentration, convulsions, stupor, coma), liver, metabolism(anorexia), cardiovascular system (hypertension, tachycardia), urinary system (kidney damage, renal impairment), and blood(increased white blood cell count, thrombocytopenia, anemia). Acute Mercury poisoning can resemble Pheochromocytoma. Ingestion: May cause severe gastrointestinal tract irritation with abdominal pain, thirst, salivation, metallic taste, nausea, vomiting, poor appetite, and diarrhea. May affect behavior/central nervous system, peripheral nervous system with symptoms similar to inhalation. Absorbed Mercury may affect liver, and kidneys (tissue damage) Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause dermatitis, and it can be absorbed through the skin and affect behavior (symptoms similar to inhalation and ingestion), and hearing. Inhalation: Effects may be delayed. It may cause permanent central nervous system damage and peripheral neuropathy (symptoms similar to acute exposure), liver and kidney damage, and may affect the brain.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: CLASS 6.1: Poisonous material.

Identification: : Phenylmercuric nitrate UNNA: 1895 PG: II

Special Provisions for Transport: Marine Pollutant

Section 15: Other Regulatory Information

Federal and State Regulations:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Phenylmercuric nitrate
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Phenylmercuric nitrate
Pennsylvania RTK: Phenylmercuric nitrate
Massachusetts RTK: Phenylmercuric nitrate
New Jersey: Phenylmercuric nitrate
TSCA 8(b) inventory: Phenylmercuric nitrate
SARA 313 toxic chemical notification and release reporting: Phenylmercuric nitrate
CERCLA: Hazardous substances.: Phenylmercuric nitrate

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):

CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC):

R24/25- Toxic in contact with skin and if swallowed. R34- Causes burns. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S23- Do not breathe gas/fumes/vapour/spray [***] S24/25- Avoid contact with skin and eyes. S37- Wear suitable gloves. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S60- This material and its container must be disposed of as hazardous waste. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 1

Reactivity: 0

Personal Protection: j

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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