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Material Safety Data Sheet

Morphine sulfate MSDS

Section 1: Chemical Product and Company Identification

Product Name: Morphine sulfate

Catalog Codes:

CAS#: 6211-15-0

RTECS: QC8760000

TSCA: TSCA 8(b) inventory: No products were found.

CI#: Not available.

Synonym: Morphine Sulfate, pentahydrate

Chemical Name: Morphinan-3,6-diol,7,8-didehydro-4,5-epoxy-17-methyl-(5-alpha,6-alpha)-, sulfate (2:1) (salt),pentahydrate

Chemical Formula: (C17H19NO3)2.H2SO4.5H2O or C34-H38-N2-O6.H2SO4.H2O

Contact Information:

Sciencelab.com, Inc.

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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
Morphine sulfate	6211-15-0	100

Toxicological Data on Ingredients: Morphine sulfate: ORAL (LD50): Acute: 973 mg/kg [Rat]. 1125 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:

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

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 central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

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. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:

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

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

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...), sulfur oxides (SO₂, SO₃...).

Fire Hazards in Presence of Various Substances:

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

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Slightly explosive in presence of open flames and sparks.

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: As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Special Remarks on Explosion Hazards:

Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

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. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, alkalis.

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: Safety glasses. Lab coat. 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. 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: Not available.

Section 9: Physical and Chemical Properties

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

Odor: Odorless.

Taste: Not available.

Molecular Weight: 758.85 g/mole

Color: White.

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

Boiling Point: Not available.

Melting Point: 250°C (482°F)

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: See solubility in water.

Solubility: Soluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excessive heat, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, alkalis.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Incompatible with alkalies, tannic acid, iodic acid, potassium permanganate, borax, chlorates, ferric chloride, iodides, lead acetate, magnesia, spirit nitrous ether, mercury bichloride, and gold salts. Sensitive to light.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 973 mg/kg [Rat].

Chronic Effects on Humans: May cause damage to the following organs: central nervous system (CNS).

Other Toxic Effects on Humans:

Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant, permeator).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects and birth defects (teratogenic). May affect genetic material (mutagenic) Human: passes through the placenta, excreted in maternal milk.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause slight irritation. May be absorbed through broken or inflamed skin. Eyes: May cause slight eye irritation. Inhalation: May cause respiratory tract and mucous membrane irritation with sneezing and/or coughing. Inhalation of large quantities may cause lung edema, respiratory difficulties, dizziness, and have an anesthetic effect (symptoms similar to ingestion). Ingestion: Narcotic! May Be Habit Forming! It may cause gastrointestinal tract irritation (disturbances) with nausea, vomiting, constipation. Ingestion of large amounts may affect behavior/central nervous system (drowsiness, dizziness, slurred speech, somnolence, mental exhilaration, confusion, mood changes, restlessness), metabolism (anorexia), cardiovascular system (heart palpitations, low blood pressure, hypertension, arrhythmias, acute ventricular failure, bradycardia, cardiac arrest). Other symptoms may include dry mouth, sweating, facial flushing, rash, non-responsive contracted pupils, and hypothermia, labored breathing causing cyanosis, flaccid skeletal muscles. Pneumonia, pulmonary edema, shock, coma, and even death may occur in severe cases. Chronic Potential Health Effects: Inhalation: Prolonged or repeated inhalation may cause respiratory irritation, tightness of the chest, asthma, and bronchitis. Ingestion: Prolonged or repeated ingestion may cause habituation or addiction. It may affect the blood, urinary system, and metabolism (anorexia). Skin: May cause contact dermatitis in sensitized individuals. Sensitized individuals may also develop anaphylactic (allergic) reactions upon re-exposure by inhalation or ingestion.

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: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations: No products were found.

Other Regulations:

Morphine Sulfate (CAS no. 64-31-3) is on the Canadian Domestic Substances list. Morphine Sulfate Pentahydrate (CAS no. 6211-15-0) is not in the Canadian Domestic Substances list.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

R22- Harmful if swallowed. S2- Keep out of the reach of children. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

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

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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