

**Safety Data Sheet**

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

**Section 1: Identification**

**Product Name** MORPHINE SULFATE USP CII (PENTAHYDRATE)  
**Commercial Name** Morphine Sulfate Pentahydrate  
**Product Use** Used in medicine as a narcotic analgesic with applications similar to morphine  
**Restrictions On Use** None  
**Product Code** 20-1000  
**Company** PCCA  
9901 South Wilcrest  
Houston, TX 77099  
Phone: 1-800-331-2498  
Fax: 1-800-874-5760

In case of emergency contact:  
**CHEMTREC (24hr) 1-800-424-9300**

**Section 2: Hazard(s) Identification**

**OSHA Haz Com:** Acute toxicity, oral Category 4 Acute toxicity, dermal Category 4 Acute toxicity, inhalation Category 4  
**CFR 1910.1200** Sensitization, respiratory Category 1 Sensitization, skin Category 1 Specific target organ toxicity, single exposure Category 3 narcotic effects Combustible Dust  
**Signal Word** DANGER  
**Hazard Statement(s)** Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause drowsiness or dizziness. May form combustible dust concentrations in air.

**Pictogram(s) or Symbol(s)**

**Precautionary Statement(s):**

**Prevention** Avoid breathing dust. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Wear protective gloves/protective clothing. Contaminated work clothing must not be allowed out of the workplace. Dust accumulation from this product may present an explosion hazard in the presence of an ignition source.

**Response** If swallowed: Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Take off contaminated clothing and wash it before reuse.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Section 3: Composition/Information on Ingredients**

**Substance/Mixture** Substance  
**Components** Morphine sulfate pentahydrate  
**% By Weight** 100  
**CAS#** 6211-15-0  
**Molecular Weight** 758.92 g/mole  
**Chemical Formula** Not available  
**Synonym(s)** Not available

**Mixtures**

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Morphine Sulfate USP CII (Pentahydrate)	6211-15-0	100	Not available.	LD 50/oral Rat (mg/kg)= 973; LD 50 Oral/Mouse (mg/kg)= 1125

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**Section 4: First-Aid Measures**

<b>Inhalation</b>	Move to fresh air. If breathing becomes difficult administer oxygen. Administer artificial respiration and/or CPR if breathing stops. Get immediate medical attention.
<b>Skin Contact</b>	After contact with skin, wash immediately with plenty of water. Immediately remove contaminated clothing and shoes. Wash contaminated clothing before re-use. Seek medical attention if symptoms appear.
<b>Eye Contact</b>	In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical attention.
<b>Ingestion</b>	If ingested, seek medical attention immediately and show the label. Rinse mouth with water. Never give anything by mouth to an unconscious person.
<b>Symptoms/Effects</b>	
<b>Acute</b>	Toxic if swallowed. Do not breathe dust. Avoid contact with eyes and skin.
<b>Delayed</b>	None
<b>Immediate Medical Attention</b>	
Notes to Physician: Treat symptomatically for a narcotic analgesic.	

**Section 5: Fire-Fighting Measures****Suitable Extinguishing Media**

Use any extinguishing media which is suitable for the surrounding fire. Use dry chemical, CO<sub>2</sub>, water fog or alcohol foam.

**Unsuitable Extinguishing Media**

Do not use water jet.

**Products of Combustion**

Carbon dioxide, carbon monoxide, oxides of nitrogen.

**Firefighters Special Equipment and Precautions**

Wear a self-contained breathing apparatus and full protective gear.

**Section 6: Accidental Release Measures**

Avoid dust formation. Wear appropriate eye, skin, respiratory protection, disposable dust impervious suit and shoe covers. Keep people away from and upwind of spill/leak. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. All waste must be placed in a sealable, properly labeled waste disposal bag. Use HEPA vacuum to remove dust followed by a wet clean-up. Handle and store as a controlled substance.

**Section 7: Handling and Storage**

Use only in well-ventilated areas. Provide appropriate exhaust ventilation at places where dust is formed. Handle and Store according to labeled instructions. Handle and Store as a controlled substance. A "regulated" area must be established for handling and storage. Wear appropriate personal protection. Clean work surfaces at the end of each day. Minimize dust during storage and handling. Fine dust dispersed in air may ignite. Store and transport in sealed bags contained within rigid drums or appropriate closed containers in a manner that minimizes the potential for spillage or container damage. Handle and store as a controlled substance. Avoid strong oxidizing agents.

**Section 8: Exposure Controls/Personal Protection**

<b>Exposure Limits</b>	OEL (TWA-8hr) = 40 ug/m <sup>3</sup> DSEN, RSEN OEL (STEL) = 300 ug/m <sup>3</sup> PBOEL = Category 2, DSEN, RSEN DSEN= Dermal sensitizer RSEN= Respiratory Sensitizer Ensure adequate ventilation. Use appropriate engineering controls based on a comprehensive industrial hygiene risk assessment.
<b>Engineering Controls</b>	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.
<b>Personal Protection</b>	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.

**Section 9: Physical and Chemical Properties**

<b>Appearance</b>	White solid powder crystals		
<b>Odor</b>	Odorless.		
<b>Odor Threshold</b>	Not available.		
<b>Melting Point</b>	250°C (482°F)	<b>pH</b>	Not available.
<b>Freezing Point</b>	Not available.	<b>Vapor Pressure</b>	Not applicable.
<b>Boiling Point/Range</b>	Not available.	<b>Vapor Density</b>	Not available.
<b>Decomposition temperature</b>	No decomposition.	<b>Viscosity</b>	Not available.
<b>Partition Coefficient: n-octanol/water</b>	Not available.	<b>Evaporation Rate</b>	Not available.
<b>Flash Point</b>	Not available.	<b>Autoignition temperature</b>	Not available.
<b>Flammability</b>	Combustible liquid. Avoid he:	<b>Flammability or Explosive Limits:</b>	
		<b>Lower</b>	Not available.
		<b>Upper</b>	Not available.
<b>Solubility(ies)</b>	Soluble in cold water.		
<b>Other</b>	Not available.		

**Section 10: Stability and Reactivity**

<b>Reactivity</b>	Not available.
<b>Chemical Stability</b>	The product is stable.
<b>Hazardous Polymerization</b>	Corrosivity: Non-corrosive in presence of glass. Hazardous polymerization will not occur.
<b>Conditions to Avoid</b>	Light stability: discoloration, no decomposition.
<b>Incompatible Materials</b>	Alkalis, tannin, strong oxidizing agents, borax, ferric chloride, iodides, lead acetate, mercuric chloride, gold salts.
<b>Hazardous Decomposition Products</b>	No decomposition.

**Section 11: Toxicological Information**

**RTECS** Not available.

**Acute Toxicity**

Acute Toxicity Eye Contact: May cause eye irritation. Skin Contact: May cause skin irritation. May cause sensitization by skin contact. Ingestion: Central nervous system effects. Cardiovascular effects. Respiratory depression. May product narcotic-like effects. Inhalation: May be harmful if inhaled. May cause sensitization by inhalation. Cardiovascular effects may produce narcotic-like effects. LD50/Oral/Rat (mg/kg) = Morphine Sulfate pentahydrate: 973 LD50/Oral/Mouse (mg/kg) = Morphine Sulfate pentahydrate: 1125 Sub-chronic/Chronic toxicity Principal routes of exposure are accidental skin and eye contact and inhalation of generated dusts. Chronic morphine poisoning or addiction causes pin-point pupils, rapid mood changes and poor social adaptation. As dependence and tolerance occurs, there is an overwhelming need to continue taking the drug or similar drugs and to increase the dose. Prolonged therapy or abuse may cause abnormal lung function, increased body temperature, and kidney failure. Withdrawal symptoms can last for months. Abrupt withdrawal of the opiates may produce yawning, dilated pupils, tears, runny nose, sneezing, muscle tremor, headache, weakness, sweating, anxiety, irritability, disturbed sleep or insomnia, restlessness, loss of appetite, nausea, vomiting, loss of weight, diarrhea, dehydration, increase in the number of white blood cells, bone pain, abdominal and muscle cramps, increase in heart rate, breathing rate and blood pressure, rise in temperature and goosebumps and blood vessel dilation or constriction. Specific Effects Target Organ(s): Liver, Central nervous system, blood, kidney Reproductive effects: Narcotic analgesics cross the placenta and are excreted in human breast milk. Developmental effects: Not available Carcinogenic effects: Not available Genotoxic effects: Not available

**Skin Corrosion/Irritation**

Not available.

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**Serious Eye Damage/Irritation**

Not available.

**Respiratory or Skin Sensitization**

Not available.

**Germ Cell Mutagenicity**

Not available.

**Carcinogenicity**

Not available.

**Reproductive Toxicity**

Narcotic analgesics cross the placenta and are excreted in human breast milk.

**Routes of Entry**

Inhalation. Ingestion.

**Symptoms Related to Exposure**

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts. Chronic morphine poisoning or addiction causes pin -point pupils, rapid mood changes and poor social adaptation. As dependence and tolerance occurs, there is an overwhelming need to continue taking the drug or similar drugs and to increase the dose. Prolonged therapy or abuse may cause abnormal lung function, increased body temperature, and kidney failure. Withdrawal symptoms can last for months. Abrupt withdrawal of the opiates may produce yawning, dilated pupils, tears, runny nose, sneezing, muscle tremor, headache, weakness, sweating, anxiety, irritability, disturbed sleep or Insomnia, restlessness, loss of appetite, nausea, vomiting, loss of weight, diarrhea, dehydration, pressure, rise in temperature and goosebumps and blood vessel dilation or constriction.

**Potential Health Effects**

Prolonged exposure = sensitization

**Target Organ(s)** Liver, Central nervous system, Blood, Kidney.**Section 12: Ecological Information****Ecotoxicity**

Studies have shown morphine sulfate to have toxic effects on birds.

**Persistence and Degradability**

Not available.

**Bioaccumulative Potential**

Not available.

**Mobility in Soil**

Not available.

**Other Adverse Effects**

Not available.

**Section 13: Disposal Considerations****Waste Disposal**

Waste disposal must be in accordance with appropriate US, Federal, State and International regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Handle and store as a controlled substance.

**Disposal of Container**

Not available.

**Other Considerations**

Not available.

**Section 14: Transport Information****DOT Classification**

Not DOT regulated.

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**Section 15: Regulatory Information****Regulations**

Indication of danger: Xn- Harmful R-Phrase(s) R22- Harmful if swallowed R42/43- May cause sensitization by inhalation and skin contact. S-Phrase(s) S7- Keep container tightly closed S16- Keep away from sources of ignition- No smoking. S33- Take precautionary measures against static discharges. S24- Avoid contact with skin S22- Do not breathe dust

**Other**

WHMIS Not controlled under WHMIS (Canada). (Canada);DSCL (EEC) R22- Harmful if swallowed. R36- Irritating to eyes.;Gloves.;Lab coat.;Dust respirator. Be sure to use an approved/certified respirator or equivalent.;Splash goggles.

**Section 16: Other Information**

Not available.