Safety Data Sheet

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

Section 1: Identification

Product Name Hydromorphone Hydrochloride USP
Commercial Name Not available
Product Use N/A
Restrictions On Use Not available.

Product Code 20-1003

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: CFR 1910.1200 Acute Oral Category 4, Skin Sensitizer Category 1, Specific Target Organ Toxicity - Single Exposure Category 3, narcotic effects Hazardous to the aquatic environment, acute hazard Category 3 Harazdous to the aquatic environment, long-term hazard Category 3

Signal Word WARNING

Hazard Statement(s) May form combustible dust concentrations in air. Harmful if swallowed. May cause an allergic skin reaction. May cause drowsiness or dizziness, Harmful to aquatic life with long lasting effects.

Pictogram(s) or Symbol(s)

Precautionary Statement(s):

Prevention Prevent dust accumulation to minimize explosion hazard. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Avoid breathing dust. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wear protective gloves. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment.

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

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 Hydromorphone Hydrochloride
% By Weight 90-100
CAS# 71-68-1
Molecular Weight 321.81 g/mole
Chemical Formula Not available
Synonym(s) Hydromorphone Hydrochloride

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Hydromorphone Hydrochloride	71-68-1	90-100	Not available.	Not available.

Section 4: First-Aid Measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison center or doctor/physician if you feel unwell.

Skin Contact Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye Contact Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

Ingestion IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Never give anything by mouth to an unconscious person.

Symptoms/Effects

Acute May cause drowsiness and dizziness. Headache. Nausea, vomiting. Abdominal pain. Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash. Rash. Hypotension (low blood pressure). Respiratory depression. asthenia, Loss of appetite, cramps, constipation or diarrhea

Delayed May cause drowsiness and dizziness. Headache. Nausea, vomiting. Abdominal pain. Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash. Rash. Hypotension (low blood pressure). Respiratory depression. asthenia, Loss of appetite, cramps, constipation or diarrhea

Immediate Medical Attention

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. Apply extinguishing media carefully to avoid creating airborne dust.

Unsuitable Extinguishing Media

Do not use water jet as an extinguisher, as this will spread the fire.

Products of Combustion

During fire, hazardous combustion products are released that may include: Carbon oxides (COx). Nitrogen oxides (NOx). Hydrogen Chloride (HCl). Carbon oxides (COx). Nitrogen oxides (NOx). Hydrogen Chloride (HCl).

Firefighters Special Equipment and Precautions

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Fire fighting equipment/instructions: Use standard firefighting procedures and consider the hazards of other involved materials. Specific methods: May form combustible dust concentrations in air

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Use only non-sparking tools. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. Methods and materials for containment and cleaning up: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Minimize dust generation and accumulation. Collect dust using a vacuum cleaner equipped with HEPA filter. Prevent product from entering drains. Stop the flow of material, if this is without risk. Large Spills: Wet down with water and dike for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water. Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Environmental precaution: Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Section 7: Handling and Storage

Precautions for safe handling: Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Do not taste or swallow. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. Conditions for safe storage, including any incompatibilitie: Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place. Store way from incompatible materials (see Section 10 of the SDS). Store between 15ºC (59ºF) and 25ºC (77ºF).

Section 8: Exposure Controls/Personal Protection

Exposure Limits
ACGIH Type: STEL Value: 0.019 mg/m3 U.S. NIOSH Type: TWA Value: 0.002 mg/m3

Engineering Controls
Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. Engineering controls should be used as the primary means to control possible exposures. Use process enclosures, local exhaust ventilation or other engineering controls to keep exposure levels below recommended exposure limits.

Personal Protection
Eye/face protection: Face shield is recommended. Wear safety glasses with side shields (or goggles). Skin protection Hand protection: Wear appropriate chemical resistant gloves. Nitrile rubber gloves are recommended. Other: Wear appropriate chemical resistant clothing. Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Dust & vapor respirator. Engineering controls should always be the primary method of controlling exposures. If respiratory protective equipment is needed for certain activities, the type as well as the corresponding protection factor will depend upon the risk assessment and air concentrations, hazards, physical and warning properties of substances present. Use only respiratory protection that conforms to international/ national standards. Suitable mask with particle filter P3 Thermal hazards: Wear appropriate thermal protective clothing, when necessary. General hygiene consideration: When using, do not eat, drink or smoke. Always observe good personal hygiene measures, suchas washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

Section 9: Physical and Chemical Properties

Appearance	White powder. Solid.
Odor	odorless
Odor Threshold	Not available.

Melting Point	581 °F (305 °C)	**pH**	Not available.
Freezing Point	Not available.	**Vapor Pressure**	Not applicable.
Boiling Point/Range	Not applicable.	**Vapor Density**	Not available.
Decomposition temperature	Not available.	**Viscosity**	Not applicable.
Partition Coefficient: n-octanol/water	Not available.	**Evaporation Rate**	Not available.
Flash Point	Unknown	**Autoignition temperature**	Not available.
Flammability	Combustible dust.	**Flammability or Explosive Limits:**	
		Lower	10 g/m3
		Upper	Not available

Solubility(ies)	Not available
Other	Auto-ignition temperature : >400 °C Method: L.I.T. 5 mm Dust Layer 490°C Method: M.I.T. Dust Cloud BAM METHOD Decomposition temperature : 315 °C Minimum T

Section 10: Stability and Reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability	Material is stable under normal conditions
Hazardous Polymerization	No dangerous reaction known under conditions of normal use
Conditions to Avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials Minimize dust generation and accumulation
Incompatible Materials	Strong Oxidizing agents
Hazardous Decomposition Products	Carbon monoxide, nitrogen oxides, hydrogen chloride gas.

Section 11: Toxicological Information

RTECS N/A

Acute Toxicity
Harmful if swallowed. Acute Other LD50 Mouse 104 mg/kg Application Route: intravenous injection 84 mg/kg Application Route: Subcutaneous; injection made in the back or neck of animal

Skin Corrosion/Irritation
Prolonged skin contact may cause temporary irritation

Serious Eye Damage/Irritation
Direct contact with eyes may cause temporary irritation

Respiratory or Skin Sensitization
May cause an allergic skin reaction.

Germ Cell Mutagenicity
Negative

Carcinogenicity
Not classifiable as to carcinogenicity to humans

Reproductive Toxicity
Animal testing did not show any effects on fertility.

Routes of Entry
Inhalation. Skin. Eye. Ingestion.

Symptoms Related to Exposure
May cause drowsiness and dizziness. Headache. Nausea, vomiting. Abdominal pain. Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash Hypotension (low blood pressure). Respiratory depression. Asthenia. Loss of appetite, cramps, constipation or diarrhea.

Potential Health Effects
May cause drowsiness and dizziness.

Target Organ(s) Prolonged inhalation may be harmful.

Section 12: Ecological Information

Ecotoxicity
Harmful to aquatic life with long lasting effects.

Persistance and Degradability
Not available.

Bioaccumulative Potential
Not available.

Mobility in Soil
Distribution among environmental compartments: log Koc: 1.99 Method: OECD Test Guideline 121

Other Adverse Effects
Ozone Depletion Potential: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Section 13: Disposal Considerations

Waste Disposal
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. The waste code should be assigned in discussion between the user, the producer and the waste disposal company Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions)

Disposal of Container
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal

Other Considerations
Not available.

Section 14: Transport Information

DOT Classification
Not regulated as a dangerous good

Section 15: Regulatory Information

Regulations

EPCRA-Emergency Planning and Community Right-to-Know Act SARA 302: No chemicals in this material are subject to the reporting re quirements of SARA Title III, Section 302. SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. Clean Air Act This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt.A,App.A+ B). This product does not contain any hazardous air pollutants(HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r)for Accidental Release Prevention (40 CFR 68.130, Subpart F). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's(40 CFR 60.489). Clean Water Act This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A. This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3. Massachusetts Right To Know No components are subject to the Massachusetts Right to Know Act. Pennsylvania Right To Know HYDROMORPHONE HYDROCHLORIDE 71-68-1 90- 100 New Jersey Right To Know HYDROMORPHONE HYDROCHLORIDE 71-68-1 90- 100% California Prop 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Other

For professional users only. This product is not subject to TSCA and TSCA 12(b) Export notification because Food, Drugs and cosmetic products are exempt.

Section 16: Other Information

Not available.