

Section 1: Identification

Product Name Nalbuphine Hydrochloride
Commercial Name Not available
Product Use Medication: Antagonist to Narcotics.
Restrictions On Use Not available

Product Code 50-2140

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 Serious eye damage/eye irritation Category 2B Specific target organ toxicity, single exposure Category 3

Signal Word WARNING

Hazard Statement(s) HARMFUL IF SWALLOWED OR IF INHALED. MAY CAUSE DROWSINESS OR DIZZINESS
Pictogram(s) or Symbol(s)

**Precautionary Statement(s):**

Prevention Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area

Response IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell Rinse mouth

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

Disposal Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Nalbuphine Hydrochloride
% By Weight 100
CAS# 23277-43-2
Molecular Weight 393.91 g/mole
Chemical Formula C21-H27-N-O4.ClH
Synonym(s) opioid agonist/antagonist analgesic *(5.alpha.,6.alpha.)-17-(Cyclobutylmethyl)-4, 5 Alpha-Epoxymorphinan-3, 6 Alpha, 14-Triol Hydrochloride; Nalbuphine Hydrochloride Analytical Research Standard -(FOR R&D USE ONLY)

Mixtures

| Name | CAS# | % by Weight | TLV/PEL | LC50/LD50 |
|--------------------------|-------------|--------------------|----------------|---------------------------------------|
| Nalbuphine Hydrochloride | 23277-43-2 | 100 | N/A | ORAL (LD50): Acute: 1100 mg/kg [Dog]. |

Section 4: First-Aid Measures

| | |
|-------------------------|---|
| Inhalation | Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention |
| Skin Contact | Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. |
| Eye Contact | Flush eyes with water for 15 minutes. Get medical attention. |
| Ingestion | Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention. |
| Symptoms/Effects | |
| Acute | May be habit forming Causes eye irritation Mild eye irritation Bitter taste in mouth Dryness of mouth Central nervous system effects Central nervous system depression Dizziness Headache Nervousness Restlessness Slurred speech vertigo Drowsiness Hallucinations Mood swings Euphoria May cause depression Sweating and flushing of skin Upset stomach May cause nausea and vomiting Abdominal pain Blurred vision Pinpoint pupils (myosis) May affect the cardiovascular system |
| Delayed | May be habit forming Causes eye irritation Mild eye irritation Bitter taste in mouth Dryness of mouth Central nervous system effects Central nervous system depression Dizziness Headache Nervousness Restlessness Slurred speech vertigo Drowsiness Hallucinations Mood swings Euphoria May cause depression Sweating and flushing of skin Upset stomach May cause nausea and vomiting Abdominal pain Blurred vision Pinpoint pupils (myosis) May affect the cardiovascular system |

Immediate Medical Attention

Treat symptomatically. Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

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

Dry chemical. Carbon dioxide (CO₂). Water spray mist or foam.

Unsuitable Extinguishing Media

Not available.

Products of Combustion

Carbon Monoxide, Carbon Dioxide. Nitrogen oxides (NO_x). hydrogen chloride gas.

Firefighters Special Equipment and Precautions

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Section 6: Accidental Release Measures

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid dust formation. Remove all sources of ignition. Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent from entering into soil, ditches, sewers, waterways, and/or ground water. Methods and material for containment and cleaning up: Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading. Methods for cleaning up: Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

Section 7: Handling and Storage

Handling: Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials. Safe Handling Advice: Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not ingest. Do not breathe dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice Storage: Technical Measures/Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Hygroscopic. Protect from moisture. Store away from incompatible materials. Incompatible Materials: Strong oxidizing agents

Section 8: Exposure Controls/Personal Protection

Exposure Limits

Not available.

Engineering Controls

Ensure adequate ventilation. 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

Eye protection: Goggles or Safety glasses with side-shields. Skin and body protection: Long sleeved clothing, Chemical resistant apron, Gloves Respiratory protection: Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent. Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product When using, do not eat, drink or smoke.

Section 9: Physical and Chemical Properties

| | | | |
|---|---|--|----------------|
| Appearance | Solid. Crystalline powder. Powder. Color: Orange | pH | Not available |
| Odor | Odorless. | Vapor Pressure | Not applicable |
| Odor Threshold | Not available | Vapor Density | Not available. |
| Melting Point | 228-235 °C/442.4-455 °F = n | Viscosity | Not available. |
| Freezing Point | Not available. | Evaporation Rate | Not available. |
| Boiling Point/Range | Not available. | Autoignition temperature | Not available. |
| Decomposition temperature | Not available. | Flammability or Explosive Limits: | |
| Partition Coefficient: n-octanol/water | Not available. | Lower | Not available. |
| Flash Point | Not available. | Upper | Not available. |
| Flammability | Not available. | | |
| Solubility(ies) | Soluble in Water | | |
| Other | Molecular/Formula weight (g/mole): 393.95 Density (g/cm3): 1.30 | | |

Section 10: Stability and Reactivity

| | |
|---|--|
| Reactivity | Not available |
| Chemical Stability | Hygroscopic. Stable under recommended storage conditions. |
| Hazardous Polymerization | Hazardous polymerization does not occur |
| Conditions to Avoid | Heat. Avoid dust formation. Exposure to moisture. Exposure to moist air. Incompatible materials. |
| Incompatible Materials | Strong oxidizing agents |
| Hazardous Decomposition Products | Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx). Hydrogen chloride gas |

Section 11: Toxicological Information**RTECS** QD3181000**Acute Toxicity**

Other LD50 or LC50 information = 1100 mg/kg LD50 oral Dog Harmful if swallowed. May be habit forming. Ingestion may cause nausea, vomiting. May cause abdominal pain. May cause upset stomach. May cause dry mouth. It may cause central nervous system depression. May cause central nervous system effects (affect behavior). May affect behavior/central nervous system (dizziness, headache). May affect behavior/central nervous system (analgesia). May affect behavior/central nervous system (euphoria, slurred speech, stupor). It may affect behavior/central nervous system (drowsiness). May cause flushing and sweating. May cause bad taste in the mouth. May cause skin rash, redness or itching. May cause blurred or foggy vision. May cause tingling, pricking feeling, or numbness in the extremities. May affect respiration (dyspnea - difficulty breathing and shortness of breath). May affect eyes (pinpoint pupils). May affect the cardiovascular system.

Skin Corrosion/Irritation

May cause skin irritation

Serious Eye Damage/Irritation

Causes eye irritation. Mild eye irritation

Respiratory or Skin Sensitization

Not available

Germ Cell Mutagenicity

Not available

Carcinogenicity

Not available

Reproductive Toxicity

Not available

Routes of Entry

Ingestion. Inhalation.

Symptoms Related to Exposure

May cause skin irritation. Causes eye irritation. Mild eye irritation. Irritating to respiratory system. Harmful if swallowed

Potential Health Effects

Not available

Target Organ(s)

Not available

Section 12: Ecological Information**Ecotoxicity**

Not available

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 must be disposed of in accordance with Federal, State and Local regulation

Disposal of Container

Empty containers should be taken for local recycling, recovery or waste disposal

Other Considerations

Not available

Section 14: Transport Information**DOT Classification**

DOT Not regulated as dangerous goods. IATA Not regulated as dangerous goods. IMDG Not regulated as dangerous goods.

Section 15: Regulatory Information**Regulations**

Not available.

Other

Not available.

Section 16: Other Information

Labeling Info Label Hazard Warning **WARNING!** May be harmful if swallowed. May be harmful if inhaled. Label Precautions Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Label First Aid Immediately flush eyes with plenty of water for at least 15 minutes. Flush skin thoroughly with water. If gasfume/vapor /dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Get medical attention if irritation develops or persists. IF SWALLOWED: Immediately call a POISON CENTER or doctor /physician. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. Rinse mouth thoroughly. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.