Safety Data Sheet

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

Section 1: Identification

Product Name Tramadol Hydrochloride USP
Commercial Name N/A
Product Use Laboratory chemicals, manufacture of substances.
Restrictions On Use Not available.

Product Code 24-4763

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

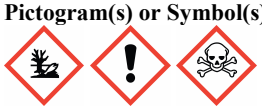
Section 2: Hazard(s) Identification

OSHA Haz Com: CFR 1910.1200 Not available.

Signal Word DANGER

Hazard Statement(s) Toxic if swallowed. Toxic to aquatic life with long lasting effects.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention Avoid release to the environment.
Response IF swallowed: Immediately call a poison center/doctor. Rinse Mouth.
Storage Not available.
Disposal Not available.

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Tramadol Hydrochloride
% By Weight 100
CAS# 36282-47-0
Molecular Weight 299.84
Chemical Formula $C_{16}H_{25}NO_2 \cdot HCl$
Synonym(s) (±)-cis-2-[(Dimethylamino)methyl]-1-(3-methoxyphenyl) cyclohexanol hydrochloride

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Tramadol Hydrochloride	36282-47-0	100%	n/a	ORAL LD50 RAT: 228 MG/KG

Section 4: First-Aid Measures

Inhalation Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin Contact Flush skin with plenty of soap and water for at least 15 minutes, while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Cold water may be used. Get medical attention if irritation occurs.

Ingestion Do not induce vomiting. Allow the victim to rinse his mouth and then do drink 2-4 cupfuls of water and seek medical advice. If large quantities of this material are swallowed, call a physician immediately.

Symptoms/Effects

Acute Not available.

Delayed Not available.

Immediate Medical Attention

N/A

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

In case of fire, use water, dry chemical powder, chemical foam, or alcohol resistant foam.

Unsuitable Extinguishing Media

Do not use waterjet.

Products of Combustion

These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).

Firefighters Special Equipment and Precautions

As in any fire, wear a self-contained breathing apparatus in Pressure demand and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Section 6: Accidental Release Measures

Initial Containment : Prevent material from entering sewers, waterways, or low areas. Dike area for later disposal. 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

Handling : Wash thoroughly after handling, Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, & clothing. Avoid ingestion & inhalation. If ingested, seek medical advice immediately and show the container or the label. Keep away from heat. Storage : Store in cool, dry place, keep container closed when not in use in well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Exposure Limits N/A

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 Eyes: Wear safety glasses and goggles if splashing is possible. Skin: Wear appropriate protective gloves and clothing to prevent skin exposure. Clothing: Wear appropriate protective gloves and clothing to prevent skin exposure. Respirators: Dust respirator. Be sure to use an approved/certified respirator or equivalent Gloves. Wear a NIOSH/MSHA - approved [or equivalent] full-face piece airline respirator in the positive pressure mode with emergency escape provisions.

Section 9: Physical and Chemical Properties

Appearance	White crystalline powder Taste: Bitter
Odor	ODORLESS
Odor Threshold	Not available.

Melting Point	178-181°C(352.4°F)	**pH**	5-6
Freezing Point	Not available.	**Vapor Pressure**	N/A
Boiling Point/Range	N/A	**Vapor Density**	N/A
Decomposition temperature	Not available.	**Viscosity**	N/A
Partition Coefficient: n-octanol/water	Not available.	**Evaporation Rate**	Not available.
Flash Point	NOT AVAILABLE.	**Autoignition temperature**	Not available.
Flammability	Not available.	**Flammability or Explosive Limits:**	
		Lower	Not available.
		Upper	Not available.

Solubility(ies)	Freely soluble in water, Methanol, practically insoluble in acetone.
Other	N/A

Section 10: Stability and Reactivity

Reactivity	NOT AVAILABLE.
Chemical Stability	STABLE AT NORMAL ROOM TEMPERATURE AND PRESSURE.
Hazardous Polymerization	Has not been reported.
Conditions to Avoid	Excess heat, dust generation, incompatible materials, light.
Incompatible Materials	Reactive with oxidizing agents, static charge, sparks, bases or acids.
Hazardous Decomposition Products	Nitrogen oxides, Carbon monoxide, Carbon dioxide, Chlorine.

Section 11: Toxicological Information

RTECS N/A

Acute Toxicity

Acute oral toxicity (LD50): 228 mg/kg [Rat]. Oral : The LD50 for Tramadol hydrochloride is report to be 1028 mg/kg in rats and 1137 mg/kg in mice. In other studies, significant lethality was observed in female rat and female mice after a single dose of 900 And 1190 mg/kg of Tramadol hydrochloride, respectively. No details of the toxic effects were reported. A thirty year old human female who ingested 50 mg of Tramadol hydrochloride tablets experienced second and third degree heart block. After recovery she subsequently developed irregular heartbeat, hypertension, dizziness, tinnitus, faintness, increased pulse rate and borderline first degree heart block.

Skin Corrosion/Irritation

NOT AVAILABLE.

Serious Eye Damage/Irritation

NOT AVAILABLE.

Respiratory or Skin Sensitization

Not available.

Germ Cell Mutagenicity

NOT AVAILABLE.

Carcinogenicity

NOT LISTED AS CARCINOGENT.

Reproductive Toxicity

NOT AVAILABLE.

Routes of Entry
Inhalation. Ingestion.

Symptoms Related to Exposure
NOT AVAILABLE.

Potential Health Effects
Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

Target Organ(s) May cause damage to the following organs: kidneys, liver, central nervous system (CNS).

Section 12: Ecological Information

Ecotoxicity
Ecotoxicity in water (LC50): 6.2 mg/196 hours [Fish (Goldfish)].

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

Bioaccumulative Potential
NOT AVAILABLE.

Mobility in Soil
NOT AVAILABLE.

Other Adverse Effects
NOT AVAILABLE.

Section 13: Disposal Considerations

Waste Disposal
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal state and local environmental regulations.

Disposal of Container
NOT AVAILABLE.

Other Considerations
NOT AVAILABLE.

Section 14: Transport Information

DOT Classification
Not a DOT controlled material.

Section 15: Regulatory Information

Regulations
Not available.

Other
N/A

Section 16: Other Information

N/A