Safety Data Sheet

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

Section 1: Identification

Product Name Orphenadrine Citrate USP
Commercial Name Ethanamine, N, N-diemthyl-2-[(2-methylphenyl)phenylmethoxy]-,2-hydroxy-1,2,3,-propanetricarboxylate (1:1))
Product Use Relaxant (skeletal muscles) Antihistaminic
Restrictions On Use Not available.

Product Code 30-2118

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 Toxicity, oral Category 3 Specific target organ toxicity, single exposure Category 3 narcotic effects.

Signal Word DANGER

Hazard Statement(s) Toxic if swallowed. May cause drowsiness or dizziness

Pictogram(s) or Symbol(s)

Precautionary Statement(s):

Prevention Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling

Response If swallowed: Immediately call a poison center/doctor. Rinse mouth. 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 Orphenadrine Citrate
% By Weight 100
CAS# 4682-36-4
Molecular Weight 461.51 g/mole
Chemical Formula C18H23N0.C6H8O7
Synonym(s) Ethanamine, N, N- dimethyl- 2 -[(2- 4682 -36-4 100 methylphenyl) phenylmethoxy] -,2- hydroxy- 1,2,3- ro anetricarbo late (1:1))***

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
			Not available.	

Section 4: First-Aid Measures

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if the substance is inhaled. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician if symptoms develop or persist.

Skin Contact Wash off with soap and water. Get medical attention if irritation develops and persists

Eye Contact Rinse with water. Get medical attention if irritation develops and persists

Ingestion Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if substance is ingested. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention if symptoms occur. If ingestion of a large amount does occur, call a poison control center immediately

Symptoms/Effects

Acute Pharmacologically active material. Occupational exposure may cause physiological effects

Delayed Pharmacologically active material. Occupational exposure may cause physiological effects

Immediate Medical Attention

Provide general supportive measures and treat symptomatically

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

Water. Foam. Dry chemical or CO2. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable Extinguishing Media

Not available.

Products of Combustion

No unusual fire or explosion hazards noted

Firefighters Special Equipment and Precautions

Wear suitable protective equipment Use water spray to cool unopened containers. As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6: Accidental Release Measures

Keep unnecessary personnel away. Wear appropriate personal protective equipment. Avoid inhalation of dust from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the SDS. Methods and materials for containment and cleaning up: For waste disposal, see section 13 of the SDS. Avoid the generation of dusts during clean-up. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

Section 7: Handling and Storage

Handling: As a general rule, when handling USP Reference Standards, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Select and use containment devices and personal protective equipment based on a risk assessment of material potency and exposure potential. Storage: Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity

Section 8: Exposure Controls/Personal Protection

Exposure Limits Not available.

Engineering Controls For laboratory operations, use local exhaust ventilation or a ventilated enclosure for high energy operations such as particle sizing. Control exposures to below the occupational exposure level (if available). Select and use containment devices and personal protective equipment based on a risk assessment of exposure potential. Cover all containers for solutions and slurries while being transferred

Personal Protection	Eye/face protection: Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available. Skin protection Hand protection: Wear nitrile or other impervious gloves if skin contact is possible. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent. Other: Train employees in proper gowning and degowning practices. Wear lab coat. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use. Do not wear protective garments in common areas (e.g., cafeterias) or out-of-doors. Respiratory protection: Respirators are generally not required for laboratory operations. Use a tight-fitting full-face respirator with HEPA filters for spill cleanup. Chose respiratory protection appropriate to the task and the level of existing engineering controls. Thermal hazards: Wear appropriate thermal protective clothing, when necessary. General hygiene considerations: Handling practices in this SDS are recommendations for laboratory use of reference standards. Procedures for any other uses or quantities should be determined after an appropriate assessment.

Section 9: Physical and Chemical Properties

Appearance	White crystalline powder
Odor	Faint odor
Odor Threshold	Not available.

Melting Point	273.2 - 280.4 °F (134 - 138 °	**pH**	Not available.
Freezing Point	Not available.	**Vapor Pressure**	Not applicable.
Boiling Point/Range	Not available.	**Vapor Density**	Not available.
Decomposition temperature	Not available.	**Viscosity**	Not available.
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)	Sparingly soluble in water.
Other	Alcohol: Slightly soluble. Chloroform: Insoluble. Diethyl ether: Insoluble. Methanol: Partially soluble. Octanol: Partially soluble Chemical family Ethanolamine derivative. Molecular formula C18H23NO . C6H8O7 Molecular weight 461.5

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	Contact with incompatible materials
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	NOx. Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions

Section 11: Toxicological Information

RTECS Not available.

Acute Toxicity
Oral: LD50 Mouse 150 mg/kg

Skin Corrosion/Irritation
Not available.

Serious Eye Damage/Irritation
Not available.

Respiratory or Skin Sensitization
Toxic if swallowed. May cause drowsiness and dizziness.

Germ Cell Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive Toxicity
Not available.

Routes of Entry
Inhalation. Ingestion.

Symptoms Related to Exposure
Decreased urination. Painful or difficult urination. Dry mouth. Changes in vision. Eye pain. Excitement. Gastrointestinal disturbances. Agitation. Insomnia. Hallucinations. Drowsiness. Trembling. Headache. Dizziness. Fainting. Cramps. Constipation. Irregular heartbeat. Bluish skin. Confusion. Sweating.

Potential Health Effects
Narcotic effects

Target Organ(s) Narcotic effects

Section 12: Ecological Information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistance and Degradability
Not available.

Bioaccumulative Potential
Not available.

Mobility in Soil
Not available.

Other Adverse Effects
Not available.

Section 13: Disposal Considerations

Waste Disposal
Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

Disposal of Container
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner

Other Considerations
Since emptied containers may retain product residue, follow label warnings even after container is emptied

Section 14: Transport Information

DOT Classification
This substance is considered to be non-hazardous for transport. DOT UN number: UN2811 UN proper shipping name:Toxic solid, organic, n.o.s. (Orphenadrine Citrate) Transport hazard class(es) Class 6.1 Subsidiary risk- Packing groupIII

Section 15: Regulatory Information

Regulations
International Inventories TSCA: Does not comply DSL: Complies NDSL: Does not comply
AICS: Complies EINECS: Complies ELINCS: Does not comply ENCS: Complies
KECL: Does not comply PICCS: Complies CHINA: Does not comply NZIoC: Does not comply
SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA): This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regualtions, Part 372. SARA 313/312 Hazardous Categorization Chronic Health Hazard: No Acute Health Hazard: Yes Fire Hazard: No Sudden Release of Pressure Hazard: No Reactive Hazard: No Reportable and Threshold Planning Quantities: No ingredients have RQs or TPQs under SARA or CERCLA. State Regulations: No components subject to "Right-to-Know" legislation in the following sates: California, Massachusetts, New Jersey, and Pennsylvania.

Other
N/A

Section 16: Other Information

The information contained herein is accurate to the best of our knowledge. The Company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.