

Section 1: Identification

Product Name L-Ornithine monohydrochloride
Commercial Name Not available
Product Use Laboratory chemicals, manufacture of substances
Restrictions On Use Not available
Product Code 30-2057
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: Eye irritation (Category 2)
CFR 1910.1200
Signal Word WARNING
Hazard Statement(s) Causes serious eye irritation.
Pictogram(s) or Symbol(s)


Precautionary Statement(s):

Prevention Not available
Response P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage Not available.
Disposal Not available

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components {L-}Ornithine monohydrochloride
% By Weight <=100
CAS# 3184-13-2
Molecular Weight 168.62 g/mole
Chemical Formula C5H12N2O2.HCl
Synonym(s) (S)-2,5-diaminopentanoic acid monohydrochloride

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
{L-}Ornithine HCl	3184-13-2	<=100	Not available.	ORAL (LD50):Acute: 10270mg/kg [Rat].

Section 4: First-Aid Measures

Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin Contact	Wash off with soap and plenty of water. Consult a physician.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Symptoms/Effects	
Acute	Not available.
Delayed	Not available

Immediate Medical Attention

Consult a physician. Show this safety data sheet to the doctor in attendance.

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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media

Not available.

Products of Combustion

Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

Firefighters Special Equipment and Precautions

Wear self contained breathing apparatus for fire fighting if necessary.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection see section 8. Environmental precautions: Do not let product enter drains. Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. For precautions see section 2.2. Conditions for safe storage, including any incompatibilities: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Section 8: Exposure Controls/Personal Protection

Exposure Limits	Not available.
Engineering Controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protection

Eye/face protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Size M) If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. Body Protection: impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure: Do not let product enter drains.

Section 9: Physical and Chemical Properties

Appearance	Solid. White powder.		
Odor	Not available.		
Odor Threshold	Not available		
Melting Point	Not available.	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 applicable
Flammability	Not available	Flammability or Explosive Limits:	
		Lower	Not available
		Upper	Not available
Solubility(ies)	Not available		
Other	Not available.		

Section 10: Stability and Reactivity

Reactivity	Not available
Chemical Stability	Stable under recommended storage conditions.
Hazardous Polymerization	Not available
Conditions to Avoid	Not available.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Not available.

Section 11: Toxicological Information
RTECS RM2985000

Acute Toxicity

LD50 Oral - rat - 10.000 mg/kg Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Ataxia. Lungs, Thorax, or Respiration:Dyspnea.

Skin Corrosion/Irritation

Not available

Serious Eye Damage/Irritation

Not available

Respiratory or Skin Sensitization

Not available

Germ Cell Mutagenicity

Not available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive Toxicity

Not available

Routes of Entry

Not available



Safety Data Sheet

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

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Symptoms Related to Exposure

Not available

Potential Health Effects

Not available.

Target Organ(s)

No data found

Section 12: Ecological Information

Ecotoxicity

Not available

Persistence and Degradability

No information found

Bioaccumulative Potential

No information found

Mobility in Soil

No information found

Other Adverse Effects

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Section 13: Disposal Considerations

Waste Disposal

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Disposal of Container

Dispose of as unused product.

Other Considerations

Not available

Section 14: Transport Information

DOT Classification

DOT Not a DOT controlled material (United States). This material is not classified dangerous good according to international transportation regulations (ADR/RID-IMDG-ICAO/IATA).

Section 15: Regulatory Information

Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). Components present in this product at a level which could require reporting under the statute are: NONE Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual report release of toxic chemicals that appear in 40 CFR 372 (used for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are: NONE; Pennsylvania Right-To-Know, Hazardous substance List, Hazardous Substances and Special hazardous Substances on the list must be identified when present in products. Components present in this product at a level which could require reporting under the statute are: NONE Massachusetts Right-To-Know, Substance List (MSL) Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. Components present in this product at a level which could require reporting under the statute are: NONE Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are: NONE California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.; California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other

WHMIS CLASS D-2A: Material causing other toxic (Canada) effects (VERY TOXIC).;DSCL (EEC) R36/38- Irritating to eyes and skin.;Gloves.;Lab coat.;Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.;Splash goggles.

Section 16: Other Information

Full text of H-Statements referred to under sections 2 and 3. Eye Irrit. Eye irritation H319 Causes serious eye irritation. Full text of R-phrases referred to under sections 2 and 3 Xi Irritant R36 Irritating to eyes. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.