

Jinhua Senta Biotechnology CO., LTD.

Material Safety Data Sheet



Product Identification

【Product Name】 L-Pyroglutamic Acid
【Synonyms】 L-5-Pyrrolidone-2-carboxylic acid
【CAS】 98-79-3
【Formula】 C₅H₇NO₃
【Molecular Weight】 129.12
【EINECS】 202-700-3
【RTECS】 TW3710000
【RTECS Class】 Drug
【Merck】 12,8185
【Beilstein/Gmelin】 82132
【Beilstein Reference】 5-22-06-00007

Physical and Chemical Properties

【Appearance】 White crystalline powder.
【Solubility in water】 Very soluble
【Melting Point】 154~162℃
【Boiling Point】 309℃
【Density】 1.455 g/cm³
【pKa/pKb】 3.47 (pKa)
【Usage】 Substance is used in the resolution of racemic amines.

First Aid Measures

【Ingestion】 Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Get medical aid if irritation or symptoms occur.
【Inhalation】 Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
【Skin】 Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
【Eyes】 Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

Handling and Storage

【Storage】 Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances.
【Handling】 Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Hazards Identification

【Ingestion】 May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not

been fully investigated.

【Inhalation】 May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

【Skin】 May cause skin irritation. The toxicological properties of this material have not been fully investigated.

【Eyes】 Dust may cause mechanical irritation. Causes eye irritation.

【EC Risk Phrase】 R 36/37/38

【EC Safety Phrase】 S 26 36

Exposure Controls/Personal Protection

【Personal Protection】 Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate clothing to prevent skin exposure.

【Respirators】 Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Fire Fighting Measures

【Fire Fighting】 Wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. To extinguish fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use agent most appropriate to extinguish fire.

Accidental Release Measures

【Small spills/leaks】 Clean up spills immediately, using the appropriate protective equipment. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Stability and Reactivity

【Disposal Code】 3

【Incompatibilities】 Acids, bases.

【Stability】 Stable under normal temperatures and pressures.

【Decomposition】 Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

Transport Information

