



Wuhan Xinru Chemical Industry Co., Ltd

Add: Room 2805, North Fuxinhuiyu, Changqing Road, Wuhan, China 430015

Tel: +86-27-5984 3600 Fax: +86-27-6666 0488 E-mail: xinru01@whxinru.cn

MATERIAL SAFETY DATA SHEET

Product Identification

【Product Name】 N-Acetyl-L-(+)-cysteine

【Synonyms】

Broncholysin
l-alpha-Acetamido-beta-mercaptopropionic acid
n-Acetyl-3-mercaptoalanine
n-Acetylcysteine
n-Acetyl-L-Cysteine
n-Acetyl-n-Cysteine

【CAS】 616-91-1

【Formula】 C₅H₉NO₃S

【Molecular Weight】 163.19

【EINECS】 210-498-3

【RTECS】 HA1660000

【RTECS Class】 Human Data

【Merck】 13,90

【Beilstein/Gmelin】 1724426

【Beilstein Reference】 4-04-00-03160

Physical and Chemical Properties

【Appearance】 White crystals. Slight acetic odor.

【Solubility in water】 200 g/L

【Melting Point】 108 - 110

【Boiling Point】 371



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【Density】 1.48 g/cm³

【pKa/pKb】 3.24 (pKa)

【Partition Coefficient】 -0.99

【Usage】 Mucolytic agent (adjuvant) for bronchopulmonary disorders.

First Aid Measures

【Ingestion】

Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid.

【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】

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Handling and Storage

【Storage】

Store in a cool, dry, well-ventilated area away from incompatible substances.

【Handling】

Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.



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Hazards Identification

【Inhalation】

May cause respiratory tract irritation. Low hazard for usual industrial handling.

【Skin】 May cause skin irritation.

【Eyes】 May cause eye irritation and possible damage.

【Ingestion】

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Low hazard for usual industrial handling.

【EC Safety Phrase】 S 22 24/25

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 protective clothing to prevent skin exposure.

【Respirators】

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

【Exposure Effects】

Fever may occur. Elevated blood pressure or abnormally low blood pressure may occur during an anaphylactoid reaction. with therapeutic use - dizziness during an anaphylactoid reaction has been reported. Elevated intracranial pressure during inhalational nac therapy has been reported. Seizures have been reported in laboratory animals.

Fire Fighting Measures

【Fire Fighting】

Wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH



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(approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam. Use extinguishing media most appropriate for the surrounding fire.

Accidental Release Measures

【Small spills/leaks】

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, using the appropriate protective equipment. Avoid generating dusty conditions. Provide ventilation.

Stability and Reactivity

【Incompatibilities】 Heavy metals, heavy metal salts, strong oxidizers.

【Stability】 Stable under normal temperatures and pressures.

【Decomposition】

Carbon monoxide, oxides of nitrogen, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.

Transport Information

【HS Code】 2930 90 16