

(N-Acetyl-L-Cysteine)
DATE PREPARED: 9/25/2015

### Section 1. Product and Company Identification

**Product Name** N-Acetyl-L-Cysteine

**CAS Number** 616-91-1

Parchem - fine & specialty chemicals

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EMERGENCY RESPONSE NUMBER

**CHEMTEL** 

Toll Free US & Canada: 1 (800) 255-3924 All other Origins: 1 (813) 248-0585

Collect Calls Accepted

Section 2. Hazards Identification

#### Classification of the substance or mixture

Not classified as a hazardous substance or mixture

GHS Label Elements
Pictograms: N/A
Signal word: N/A

### Hazard and precautionary statements

None

**Potential Acute Health Effects:** Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Potential Chronic Health Effects:** Very hazardous in case of skin contact (irritant, permeator), eye contact (irritant), ingestion, or inhalation.

Carcinogenic Effects: Not available.

Mutagenic Effects: Not available.

Teratogenic Effects: Not available.

Developmental Toxicity: Not available.

Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

### Section 3. Composition / Information on Ingredients

Common Name N-Acetyl-L-Cysteine

**Synonym(s)** (s)-alpha-Amino-2-Naphthalenepropionic Acid

Formula C<sub>5</sub>H<sub>9</sub>NO<sub>3</sub>S CAS Number 616-91-1



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#### Section 4. First Aid Measures

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin Contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

#### Section 5. Firefighting Measures

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.
Flammable Limits: Not available.

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO,

NO...).

Fire Hazards in Presence of Various Substances: Not available.

#### **Explosion Hazards in Presence of Various Substances**

Risks of Explosion of the Product in Presence of Mechanical Impact: Not available. Risks of Explosion of the Product in Presence of Static Discharge: Not available.

#### Fire Fighting Media and Instructions

**Small Fire:** Use DRY chemical powder.

**Large Fire:** Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

#### Section 6. Accidental Release Measures

**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.



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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

Precautions: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

### Section 8. Exposure Controls / Personal Protection

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: Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

### Section 9. Physical and Chemical Properties

Physical State: Solid. (Crystalline solid.)

**Appearance:** White Odor: Not available. Taste: Not available.

Molecular Weight: Not available.

Color: White.

pH (1% solution/water): Not available.

Boiling Point: Not available. Melting Point: 109°C (228.2°F) Critical Temperature: Not available. **Specific Gravity:** Not available. Vapor Pressure: Not applicable. Vapor Density: Not available.

Odor Threshold: Not available.

Volatility: Not available.

Water/Oil Dist. Coefficient: Not available.



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**Ionicity (in Water):** Not available. **Dispersion Properties:** Not available.

**Solubility:** Soluble in water.

Section 10. Stability and Reactivity

**Stability:** The product is stable.

**Conditions to Avoid:** High temperatures, incompatible materials, dust generation, excess heat. **Incompatibilities with Other Materials:** Heavy metals, heavy metal salts, strong oxidizers. **Hazardous Decomposition Products:** Carbon monoxide, oxides of nitrogen, oxides of sulfur,

irritating and toxic fumes and gases, carbon dioxide.

**Corrosivity:** Not considered to be corrosive for metals and glass.

Special Remarks on Reactivity: Not available.

**Polymerization:** Will not occur.

Section 11. Toxicological Information

**Routes of Entry:** Dermal contact. Eye contact. Inhalation. Ingestion. **Toxicity to Animals:** Acute oral toxicity (LD50): 5050 mg/kg [Rat].

Oral (LD50): 4400 mg/kg [Mouse]

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Very hazardous in case of skin contact (irritant, permeator),

ingestion, or inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

**Carcinogenicity:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Section 12. Ecological Information

**Ecotoxicity:** Not available. **BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely.

However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.



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Section 14. Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

Section 15. Regulatory Information

#### **US Federal**

TSCA: CAS# 616-91-1 is listed on the TSCA inventory.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting

List.

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b:** None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule:** None of the chemicals in this material have a SNUR under

TSCA.

**CERCLA Hazardous Substances and corresponding RQs:** None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances:** None of the chemicals in this product have a TPQ.

**SARA Codes:** CAS # 616-91-1: immediate.

Section 313: No chemicals are reportable under Section 313.

#### Clean Air Act

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:** None of the chemicals in this product are considered highly hazardous by OSHA.

#### State

CAS# 616-91-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65:** California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations** 

**European Labeling in Accordance with EC Directives** 

**Hazard Symbols:** Not available. **Risk Phrases:** Not available.



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Safety Phrases: Not available.

WGK (Water Danger/Protection): CAS# 616-91-1: 1

**Canada - DSL/NDSL:** CAS# 616-91-1 is listed on Canada's DSL List. **Canada - WHMIS:** This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products

Regulations and the MSDS contains all of the information required by those regulations.

HMIS (U.S.A.)

Health: 2

Flammability: 1 Reactivity: 0

**Personal Protection:** E

National Fire Protection Association (U.S.A.)

Health: 2

Flammability: 1 Reactivity: 0

**Protective Equipment:** 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

**Disclaimer:** 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.

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