

**MSDS****Material Safety Data Sheet**

From: Vinquiry, Inc.  
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**VINQUIRY**

24 hour Emergency Telephone:  
Chemtrec: 1-800-424-9300

Outside U.S. and Canada Chemtrec: 202-483-7616

**NOTE:** CHEMTREC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All Non-emergency questions should be directed to Customer Service (1-707-838-6312) for assistance.

## NAC Buffer

Contains: N-Acetyl-L-Cysteine

Vinquiry Product Codes: 10-019-0000, 10-019-0118, 10-019-0237, 10-019-0473

## N-ACETYL-L-CYSTEINE

MSDS Number: NB019 --- Effective Date: 01/01/01

### 1. Product Identification

**Synonyms:** Acetylcysteine; mercapturic acid

**CAS No.:** 616-91-1

**Molecular Weight:** 163.20

**Chemical Formula:** C5H9NO3S

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
N-Acetyl-L-Cysteine	616-91-1	98 - 100%	Yes

### 3. Hazards Identification

#### Emergency Overview

**CAUTION! MAY CAUSE IRRITATION TO SKIN AND EYES.**

VINQUIRY SAFETY DATA Ratings (Provided here for your convenience)

Health Rating: 2 - Slight

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT

Storage Color Code: Orange (General Storage)

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## Health Effects

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### **Inhalation:**

No adverse health effects expected from inhalation.

### **Ingestion:**

Large doses may cause gastro-intestinal upset.

### **Skin Contact:**

May cause irritation with redness and pain.

### **Eye Contact:**

May cause irritation, redness and pain.

### **Chronic Exposure:**

No information found.

### **Aggravation of Pre-existing Conditions:**

No information found.

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## 4. First Aid Measures

### **Inhalation:**

Not expected to require first aid measures.

### **Ingestion:**

If large amounts were swallowed, give water to drink and get medical advice.

### **Skin Contact:**

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

### **Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

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## 5. Fire Fighting Measures

### **Fire:**

Not considered to be a fire hazard.

### **Explosion:**

Not considered to be an explosion hazard.

### **Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

### **Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used

to avoid dust dispersal.

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## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Store below 40C (104F), preferably between 15C and 30C (59-86F). Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

None established.

### **Ventilation System:**

Not expected to require any special ventilation.

### **Personal Respirators (NIOSH Approved):**

Not expected to require personal respirator usage.

### **Skin Protection:**

Wear protective gloves and clean body-covering clothing.

### **Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

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## 9. Physical and Chemical Properties

### **Appearance:**

White crystals.

### **Odor:**

Slight acetic acid odor.

### **Solubility:**

Soluble in water.

### **Specific Gravity:**

No information found.

### **pH:**

2-2.75

### **% Volatiles by volume @ 21C (70F):**

0

### **Boiling Point:**

No information found.

### **Melting Point:**

109 - 110C (228 - 230F)

### **Vapor Density (Air=1):**

No information found.

### **Vapor Pressure (mm Hg):**

No information found.

### **Evaporation Rate (BuAc=1):**

No information found.

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## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

Burning may produce carbon monoxide, carbon dioxide, sulfur oxides, and nitrogen oxides.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Oxidizers.

**Conditions to Avoid:**

Incompatibles.

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## 11. Toxicological Information

Oral rat LD50: 5050 mg/kg

-----\Cancer Lists\-----

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
N-Acetyl-L-Cysteine (616-91-1)	No	No	None

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## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

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## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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## 14. Transport Information

Not regulated.

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## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----  
Ingredient TSCA EC Japan Australia  
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N-Acetyl-L-Cysteine (616-91-1) Yes Yes Yes Yes

-----\Chemical Inventory Status - Part 2\-----  
Ingredient Korea DSL NDSL Phil.  
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N-Acetyl-L-Cysteine (616-91-1) Yes Yes No Yes

-----\Federal, State & International Regulations - Part 1\-----  
-SARA 302- -SARA 313-----  
Ingredient RQ TPQ List Chemical Catg.  
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N-Acetyl-L-Cysteine (616-91-1) No No No No

-----\Federal, State & International Regulations - Part 2\-----  
-RCRA- -TSCA-  
Ingredient CERCLA 261.33 8(d)  
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N-Acetyl-L-Cysteine (616-91-1) No No No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No  
SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No  
Reactivity: No (Pure / Solid)

**Australian Hazchem Code:** No information found.

**Poison Schedule:** No information found.

### WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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## 16. Other Information

**NFPA Ratings:** Health: 1 Flammability: 0 Reactivity: 0

### Label Hazard Warning:

CAUTION! MAY CAUSE IRRITATION TO SKIN AND EYES.

### Label Precautions:

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

### Label First Aid:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

### Product Use:

Laboratory Reagent.

### Revision Information:

No changes.

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## **Disclaimer**

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