

PAGE #:1 OF 5	<b>PRODUCT SAFETY DATA SHEET</b> <b>MELFORD LABORATORIES LTD</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :01/17/2023
According to regulation (EC) No. 1272/2008	PRODUCT NAME: N-Acetyl-L-cysteine		ITEM NO: A10040

### **SECTION 1 - CHEMICAL IDENTIFICATION**

PRODUCT NAME: N-Acetyl-L-cysteine  
 CATALOG #: A10040  
 SUPPLIER'S NAME: Melford Laboratories Ltd  
 SUPPLIERS ADDRESS: Bildeston Road, Chelsworth, Ipswich, IP7 7LE, UK  
 EMERGENCY CONTACT: 01449 741178  
 OTHER INFORMATION: support@melford.co.uk

### **SECTION 2 - HAZARDS IDENTIFICATION**

#### **2.1 Classification of the substance or mixture**

##### **GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

H319	Serious eye damage/eye irritation	Category 2A
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#### **2.2 GHS Label elements, including Hazard and Precautionary Statement(s)**

##### **Pictogram**



**Signal word: Warning**

##### **Hazard statement(s)**

H319	Causes Serious Eye irritation
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##### **Prevention, Response, Storage and Disposal Precautionary Statement(s)**

P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

### **SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS**

CAS Number: 616-91-1  
 EINECS Number: 210-498-3  
 Formula: C<sub>5</sub>H<sub>9</sub>NO<sub>3</sub>S  
 Molecular Weight: 163.2 g/mol

### **SECTION 4 - FIRST-AID MEASURES**

#### **4.1 Description of first aid measures**

**General advice:** Consult a doctor and show this safety data sheet.

PAGE #:2 OF 5	<b>PRODUCT SAFETY DATA SHEET</b> <b>MELFORD LABORATORIES LTD</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :01/17/2023
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- i. **If inhaled:** Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
- ii. **In case of skin contact:** Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
- iii. **In case of eye contact:** Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
- iv. **If swallowed:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed:** To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**4.3 Indication of immediate medical attention and special treatment needed:** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

#### **SECTION 5 - FIRE FIGHTING MEASURES**

##### **5.1 Extinguishing media**

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**5.2 Special hazards arising from the substance or mixture:** Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides  
Combustible. Development of hazardous combustion gases or vapors possible in the event of fire.

**5.3 Precautions for fire-fighters:** Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

**5.4 Further information:** No data available

#### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:** Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

**6.2 Environmental precautions:** Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up:** Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

**6.4 Reference to other sections:** For required PPE see section 8. For disposal see section 13.

#### **SECTION 7 - HANDLING AND STORAGE**

**7.1 Precautions for safe handling:** Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Keep in a dry place. Store at 2-8 °C.

**7.3 Specific end use(s):** Apart from the uses mentioned in section 1 no other specific uses are stipulated.

PAGE #:3 OF 5	<b>PRODUCT SAFETY DATA SHEET</b> <b>MELFORD LABORATORIES LTD</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :01/17/2023
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## **SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

**Components with workplace control parameters:** Contains no substances with occupational exposure limit values.

### **8.2 Exposure Controls**

- i. **Appropriate engineering controls:** General industrial hygiene practice.

### **8.3 Personal protective equipment**

- i. **Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- ii. **Skin protection:** 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
- iii. **Body Protection:** Wear appropriate protective clothing. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

- iv. **Control of environmental exposure:** Do not let product enter drains

## **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

### **Information on basic physical and chemical properties**

<b>Appearance</b>	White Solid	<b>Vapor Pressure</b>	No Data Available
<b>Odor</b>	Odorless	<b>Vapor Density</b>	No Data Available
<b>Odor Threshold</b>	No Data Available	<b>Relative Density @ 20°C</b>	1.48
<b>pH</b>	No Data Available	<b>Water Solubility @ 20°C</b>	179.5 g/L
<b>Melting / Freezing Point</b>	106 - 108 °C	<b>Partition Coefficient</b>	No Data Available
<b>Initial Boiling Point Range</b>	No Data Available	<b>Auto-Ignition Temperature</b>	No Data Available
<b>Flash Point</b>	No Data Available	<b>Decomposition Temperature</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available	<b>Viscosity</b>	No Data Available
<b>Flammability (Solid, Gas)</b>	No Data Available	<b>Explosive Properties</b>	No Data Available
<b>Upper / Lower Flammability Or Explosive Limits</b>	No Data Available	<b>Oxidizing Properties</b>	No Data Available

## **SECTION 10 - STABILITY AND REACTIVITY**

**Stability:** Stable under recommended storage conditions.

**Hazardous Decomposition Products:** Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2), Sulfur oxides.

**Hazardous Polymerization:** No Data Available.

**Incompatibilities:** Strong oxidizing agents, oxygen, Metals, Butyl rubber

PAGE #:4 OF 5	<b>PRODUCT SAFETY DATA SHEET</b> <b>MELFORD LABORATORIES LTD</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :01/17/2023
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**SECTION 11 - TOXICOLOGICAL INFORMATION**

**Acute Toxicity**

<b>LD50 Oral</b>
5.050 mg/kg (Rat) Remarks: (RTECS)Symptoms: Nausea, Vomiting, Gastrointestinal discomfort

**Addition Information:** RTECS: HA1660000: bronchospasm, Nausea, Vomiting, stomatitis, nasal discharge  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately. Therapeutically used substance. Handle in accordance with good industrial hygiene and safety practice.

**SECTION 12 - ECOLOGICAL INFORMATION**

**Eco Toxicity:**

Toxicity to fish EC50	Toxicity to algae Er50
Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)	Pseudokirchneriella subcapitata - > 100 mg/l - 72 h (OECD Test Guideline 201)

**Persistence and degradability**

**Biodegradability:** aerobic - Exposure time 28 d Result: 76 % - Readily biodegradable. (OECD Test Guideline 301F)

**Bioaccumulative potential/ Mobility in soil:** No data available

**Results of PBT and vPvB assessment:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Other adverse effects:** Discharge into the environment must be avoided.

**Chronic Toxicity:** There are no known carcinogenic chemicals in this product

**SECTION 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.

**SECTION 14 - TRANSPORT INFORMATION**

DOT	TDG	IATA	IMDG/IMO
Not regulated	Not regulated	Not regulated	Not regulated

**SECTION 15 - REGULATORY INFORMATION**

**INTERNATIONAL INVENTORIES**

TSCA	DSL	NDSL	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Listed	Listed	-	-	-	Listed	Listed	Listed	Listed	Listed

**USA Federal Regulation**

**SARA 313/SARA 311/312 HAZARDOUS CATEGORIZATION:** Not Hazard

**Clean Water Act/ Clean Air Act:** No Data Available

PAGE #:5 OF 5	<b>PRODUCT SAFETY DATA SHEET</b> <b>MELFORD LABORATORIES LTD</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :01/17/2023
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**TSCA 12(b)/ OSHA/ CERCLA:** Not Applicable

**California Proposition 65:** This product does not contain any Proposition 65 chemicals.

**HMIS Rating**

Health hazard	Chronic Health Hazard	Flammability	Physical Hazard
0		0	0

**NFPA Rating**

Health Hazard	Fire Hazard	Reactivity Hazard
0	0	0

**STATE RIGHT TO KNOW**

Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
-	Listed	Listed	-	-

**US DEPARTMENT OF TRANSPORTATION**

REPORTABLE QUANTITY (RQ)	DOT MARINE POLLUTANT	DOT SEVER MARINE POLLUTANT
No	No	No

**U.S. DEPARTMENT OF HOMELAND SECURITY:** This product does not contain any DHS chemicals.

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

**This SDS complies with the requirements of Regulation (EC).**

**SECTION 16 - OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Melford Laboratories Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. This product is sold for laboratory research and development purposes use only.