Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier
Product Name: N-Acetyl-L-aspartic acid
Product Code: SC-253089
CAS No: 997-55-7
Pure substance/mixture: Substance

1.2. Relevant identified uses of the substance or mixture and uses advised against
For research use only. Not intended for diagnostic or therapeutic use.

1.3. Details of the supplier of the safety data sheet
Santa Cruz Biotechnology, Inc.
10410 Finnell Street
Dallas, TX 75220
831.457.3800
800.457.3801
scbt@scbt.com

Chemtrec
1.800.424.9300 (Within USA)
+1.703.527.3887 (Outside USA)

1.4. Emergency telephone number
Chemtrec
1.800.424.9300 (Within USA)
+1.703.527.3887 (Outside USA)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Regulation (EC) No 1272/2008
Serious eye damage/eye irritation: Category 2 - (H319)
Specific target organ toxicity (single exposure): Category 3 - (H336)

Classification according to 67/548/EEC
Hazard symbols: Not dangerous

2.2. Label Elements
Signal word: Warning
Symbols/Pictograms: H336 - May cause drowsiness or dizziness
H319 - Causes serious eye irritation

Hazard statements:
EUH210 - Safety data sheet available on request

2.3. Other Hazards
General Hazards: Not applicable
Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight 175.14
Formula C₆H₉NO₅

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EC No</th>
<th>CAS No</th>
<th>Weight %</th>
<th>Classification according to 67/548/EEC</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-Acetyl-L-aspartic acid</td>
<td>Present</td>
<td>997-55-7</td>
<td>100</td>
<td>-</td>
<td>Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H335)</td>
</tr>
</tbody>
</table>

Full text of R-phrases: see section 16
Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures
General advice Consult a physician if necessary.
Inhalation Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
Skin Contact Wash skin with soap and water.
Eye contact Wash with plenty of water.
Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed
Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media
Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture
Specific hazards arising from the chemical No information available
Hazardous combustion products Carbon oxides. Nitrogen oxides (NOx).

5.3. Advice for firefighters
Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions Ensure adequate ventilation, especially in confined areas.
For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions
Environmental precautions See Section 12 for additional Ecological Information.
6.3. Methods and material for containment and cleaning up

Methods for containment
- Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
- Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

6.4. Reference to other sections
See Section 12: ECOLOGICAL INFORMATION.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Advice on safe handling
- Corrosive hazard. Wear protective gloves/clothing and eye/face protection.

General Hygiene Considerations
- Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
- Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)
Risk Management Methods (RMM)
- The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits
- This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)
- No information available

Predicted No Effect Concentration (PNEC)
- No information available.

8.2. Exposure controls

Engineering Controls
- Showers
- Eyewash stations
- Ventilation systems

Eye/face protection
- Wear safety glasses with side shields (or goggles).

Skin and Body Protection
- Wear protective gloves and protective clothing.

Respiratory protection
- If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Environmental exposure controls
- No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Property
- Physical State
- Solid
- Appearance
- powder
- Odor
- No information available

Values
- pH
- No information available
- Melting point/freezing point
- 137 °C
- Boiling point
- No information available
- Flash point
- No information available
- Density
- No information available
- Evaporation rate
- No information available
- Upper flammability limits
- No information available
- Lower flammability limit
- No information available
Section 10: STABILITY AND REACTIVITY

10.1. Reactivity
Reactivity
Not applicable

10.2. Chemical stability
Stability
Stable under recommended storage conditions.
Sensitivity to Mechanical Impact
No information available.
Sensitivity to Static Discharge
No information available.

10.3. Possibility of hazardous reactions
Hazardous polymerization
No information available.
Possibility of Hazardous Reactions
None under normal processing.

10.4. Conditions to avoid
Conditions to avoid
Extremes of temperature and direct sunlight.

10.5. Incompatible materials
Incompatible materials
Strong oxidizing agents.

10.6. Hazardous decomposition products
Hazardous Decomposition Products
Carbon oxides. Nitrogen oxides (NOx).

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Acute toxicity
Product Information
Product does not present an acute toxicity hazard based on known or supplied information.
Unknown acute toxicity
100% of the mixture consists of ingredient(s) of unknown toxicity.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity
May cause long lasting harmful effects to aquatic life.
Unknown aquatic toxicity
100% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

12.2. Persistence and degradability
Persistence and degradability
No information available.

12.3. Bioaccumulative potential
Bioaccumulation
No information available.

12.4. Mobility in soil
Mobility
No information available.

12.5. Results of PBT and vPvB assessment
PBT and vPvB assessment
No information available.

12.6. Other adverse effects
Other adverse effects
No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from residues/unused products
Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging
Do not reuse container.

Section 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>RID / ADR</th>
<th>IMDG</th>
<th>ICAO (air) / IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
</tr>
</tbody>
</table>

14.1 UN/ID no
14.2 Proper shipping name
14.3 Hazard Class
14.4 Packing Group
14.5 Environmental Hazard
14.6 Special Provisions

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National Regulations

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories
All of the components in the product are on the following Inventory lists
Europe (EINECS/ELINCS/NLP) ENCS (Japan):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-Acetyl-L-aspartic acid</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

X - Listed
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
15.2. Chemical safety assessment

Chemical Safety Report No information available

Section 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3 No information available
Full text of H-Statements referred to under sections 2 and 3 H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Revision note No information available.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet