L-Ascorbic Acid

Section 1  Product Description

Product Name: L-Ascorbic Acid  
Recommended Use: Science education applications  
Synonyms: Vitamin C, Ascorbic Acid  
Distributor: Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)  
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2  Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

GHS Classification:

Other Safety Precautions: Not a dangerous substance according to GHS classification criteria.  
No known OSHA hazards.

Section 3  Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-Ascorbic Acid</td>
<td>50-81-7</td>
<td>100</td>
</tr>
</tbody>
</table>

Section 4  First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Eyes: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin Contact: After contact with skin, wash immediately with plenty of water.

Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5  Firefighting Procedures

Extinguishing Media: Use dry chemical, CO2 or appropriate foam.

Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Fire and/or Explosion Hazards: Avoid Dusting. May become explosive when dispersed in air. Take precautionary measures against static discharges.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

Section 6  Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: No health affects expected from the clean-up of this material if contact can be avoided.  
Follow personal protective equipment recommendations found in Section 8 of this (M)SDS  
Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away. Avoid creating and inhaling dust. Avoid contact with skin and eyes.  
Reduce airborne dust and prevent scattering by moistening with water. Ventilate the area by opening door and/or turning on fans and blowers. Vacuum or sweep up material and place in a disposal container. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

Section 7  Handling and Storage
Handling: Readily absorbs moisture from air. Keep away from heat.
Storage: Keep container tightly closed in a cool, well-ventilated place.
Storage Code: Green - general chemical storage

Section 8 Protection Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH (TWA)</th>
<th>ACGIH (STEL)</th>
<th>OSHA PEL (TWA)</th>
<th>OSHA PEL (STEL)</th>
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</thead>
<tbody>
<tr>
<td>No data available</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE):

Respiratory Protection: No respiratory protection required under normal conditions of use.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Natural rubber, Neoprene, PVC or equivalent.

Section 9 Physical Data

- Formula: C6H8O6
- Molecular Weight: 176.12
- Appearance: White Crystals
- Odor: No data available
- Odor Threshold: No data available
- pH: 1.0 - 2.5 at 176 g/l at 25 °C (77 °F)
- Melting Point: 190 °C
- Boiling Point: No data available
- Flash Point: No data available
- Flammable Limits in Air: N/A
- Vapor Pressure: 9.28x10(-11) mm Hg @ 25°C
- Evaporation Rate (BuAc=1): N/A
- Vapor Density (Air=1): N/A
- Specific Gravity: 1.65
- Solubility in Water: Soluble
- Log Pow (calculated): No data available
- Autoignition Temperature: No data available
- Decomposition Temperature: No data available
- Viscosity: No data available
- Percent Volatile by Volume: <1%

Section 10 Reactivity Data

- Reactivity: No data available
- Chemical Stability: Stable under normal conditions.
- Conditions to Avoid: None known. Visible light
- Incompatible Materials: Strong oxidizing agents
- Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Inhalation, Ingestion, and Skin contact.</th>
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</thead>
<tbody>
<tr>
<td>Symptoms (Acute)</td>
<td>Impaired Kidney Function</td>
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<tr>
<td>Delayed Effects</td>
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</tr>
</tbody>
</table>

**Acute Toxicity:**

- Chemical Name: L-Ascorbic Acid
- CAS Number: 50-81-7
- Oral LD50 Mouse: 3367 mg/kg
- Oral LD50 Rat: 11900 mg/kg
- DermaLD50: Not determined
- Inhalation LC50: Not determined

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
<th>L-Ascorbic Acid</th>
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</thead>
<tbody>
<tr>
<td>Chemical Name</td>
<td>CAS Number</td>
</tr>
<tr>
<td>IARC</td>
<td>NTP</td>
</tr>
<tr>
<td>OSHA</td>
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</tr>
</tbody>
</table>
Safety Data Sheet

No data available

50-81-7 Not listed Not listed Not listed

Chronic Effects:
Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
   Acute: See Section 2
   Chronic: Not listed as a carcinogen by IARC, NTP or OSHA., Mutation data cited., Reproductive data cited.

Section 12 Ecological Data
Overview: This material is not expected to be harmful to the ecology.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Eco Toxicity</th>
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<tbody>
<tr>
<td>N/A</td>
<td>50-81-7</td>
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</table>

Section 13 Disposal Information
Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14 Transport Information
Ground - DOT Proper Shipping Name: Not regulated for transport.
Air - IATA Proper Shipping Name: Not regulated for air transport by IATA.

Section 15 Regulatory Information
TSCA Status: All components in this product are on the TSCA Inventory.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>§ 313 Name</th>
<th>§ 304 RQ</th>
<th>CERCLA RQ</th>
<th>§ 302 TPQ</th>
<th>CAA 112(2) TQ</th>
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<tbody>
<tr>
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<td>50-81-7</td>
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Section 16 Additional Information
Revised: 04/07/2015
Replaces: 09/03/2014
Printed: 04-21-2015
The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary
ACGIH American Conference of Governmental Industrial Hygienists
CAS Chemical Abstract Service Number
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
DOT U.S. Department of Transportation
IARC International Agency for Research on Cancer
N/A Not Available
NTP National Toxicology Program
OSHA Occupational Safety and Health Administration
PEL Permissible Exposure Limit
ppm Parts per million
RCRA Resource Conservation and Recovery Act
SARA Superfund Amendments and Reauthorization Act
TLV Threshold Limit Value
TSCA Toxic Substances Control Act
IDLH Immediately dangerous to life and health

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