1. Identification

Product Identifier: ASCORBIC ACID
Synonyms: L-Ascorbic Acid, Vitamin C, L-3-Ketothreohexuronic Acid Lactone
Chemical Formula: C6H8O6
Recommended Use of the Chemical and Restrictions On Use: Laboratory Reagent
Manufacturer / Supplier: Puritan Products; 2290 Avenue A, Bethlehem, PA 18017  Phone: 610-866-4225
Emergency Phone Number: 24-Hour Chemtrec Emergency Telephone 800-424-9300

2. Hazard(s) Identification

Classification of the Substance or Mixture: Not classified
Risk Phrases: None

Label Elements:

Trade Name: ASCORBIC ACID
Signal Word: None
Pictogram: None
Hazard Statements: None
Precautionary Statements: None

3. Composition / Information on Ingredients

CAS Number: 50-81-7
EC Number: 200-066-2
Molecular Weight: 176.13 g/mol

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Percent</th>
<th>Hazardous</th>
<th>Chemical Characterization</th>
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<td>231-791-2</td>
<td>100%</td>
<td>Yes</td>
<td>Substance</td>
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4. First-aid Measures

**Inhalation:** If inhaled, remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:** Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

**Skin Contact:** Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye Contact:** Wash thoroughly with running water. Get medical advice if irritation develops.

5. Fire-fighting Measures

**Fire:** As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

**Explosion:** Not considered to be an explosion hazard.

**Fire Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

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

6. Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Wear appropriate personal protective equipment as specified in Section 8.

**Environmental Precautions and Methods and Materials for Containment and Cleaning Up:** Ventilate area of leak or spill. Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

7. Handling and Storage

**Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities:** Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Isolate from incompatible substances. 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.

8. Exposure Controls / Personal Protection

**Airborne Exposure Limits:** None established.

**Ventilation System:** A system of local and / or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):** For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in Oxygen-deficient atmospheres.

**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.
9. Physical and Chemical Properties

**Appearance:** White crystals

**Odor:** Odorless

**Odor Threshold:** Not determined

**pH:** 3 for 5mg/L aqueous solution; 2 for 50mg/L aqueous solution

**% Volatiles by volume @ 21°C (70°F):** 0

**Melting Point:** 192°C (378°F) Slightly decomposes

**Boiling Point / Boiling Range:** Not applicable

**Flash Point:** No data available

**Evaporation Rate (BuAc=1):** No data available

**Flammability:** No data available

**Upper / Lower Flammability or Explosive Limits:** No data available

**Vapor Pressure (mm Hg):** No data available

**Vapor Density (Air=1):** No data available

**Relative Density:** No data available

**Solubility:** 33g/100g water

**Partition Coefficient: n-octanol / water: ** No data available

**Auto-ignition Temperature:** No data available

**Decomposition Temperature:** No data available

**Viscosity:** No data available

10. Stability and Reactivity

**Reactivity and / or Chemical Stability:** Stable under ordinary use and storage conditions. Aqueous solutions are rapidly oxidized by air.

**Possibility of Hazardous Reactions and Conditions to Avoid:** Light, incompatibles.

**Incompatible Materials:** Strong oxidizers and alkali hydroxides, alkalis, Iron, Copper, Sodium Salicylate, Sodium Nitrite, Theobromine and Methenamine.

**Hazardous Decomposition Products:** May produce acrid smoke and irritating fumes when heated to decomposition.

11. Toxicological Information

**Emergency Overview:** As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

**Potential Health Effects:**

**Inhalation:** May cause mild irritation to the respiratory tract.

**Ingestion:** Large oral doses may cause gastrointestinal disturbances.

**Skin Contact:** May cause mild irritation.

**Eye Contact:** May cause mild irritation.

**Chronic Exposure:** No information found.

**Aggravation of Pre-existing Conditions:** No information found.

**Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System):** No data available.

**Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System):** No data available.
**Numerical Measures of Toxicity:** Cancer Lists: NTP Carcinogen

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<th>Ingredient</th>
<th>Known</th>
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<td>L-Ascorbic Acid (50-81-7)</td>
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</table>

**Acute Toxicity:** Oral LD50 (rat): 900 mg/kg. Investigated as a mutagen.

**12. Ecological Information**

Ecotoxicity: No information found.

Persistence and Degradability: No information found.

Bioaccumulative Potential: No information found.

Mobility in Soil: No information found.

Other adverse effects: No information found.

**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.

**14. Transport Information**

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)
Not regulated

Maritime Transport IMDG/GGVSea
Not regulated

Air Transport ICAO-TI and IATA-DGR
Not regulated

**15. Regulatory Information**

**Chemical Inventory Status – Part 1**

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**Chemical Inventory Status – Part 2**

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**Federal, State & International Regulations - Part 1**

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<th>Ingredient</th>
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**Federal, State & International Regulations - Part 2**

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### 16. Other Information

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