



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** L-ASCORBIC ACID, REAGENT (ACS)  
**Catalog #** 854  
**Version #** 02  
**Revision date** 22-Oct-2009  
**CAS #** 50-81-7  
**Synonym(s)** VITAMIN C  
**Manufacturer information** GFS Chemicals, Inc.  
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Powell, OH 43065 US  
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## 2. Hazards Identification

**Emergency overview** Exposure to powder or dusts may be irritating to eyes, nose and throat.  
**OSHA regulatory status** This product is considered not hazardous under 29 CFR 1910.1200 (Hazard Communication).  
**Potential health effects**  
**Routes of exposure** Inhalation.  
**Eyes** Dust or powder may irritate eye tissue.  
**Skin** Health injuries are not known or expected under normal use.  
**Inhalation** Inhalation of dusts may cause respiratory irritation.  
**Ingestion** Health injuries are not known or expected under normal use.  
**Potential environmental effects** Ecological injuries are not known or expected under normal use.

## 3. Composition / Information on Ingredients

Non-hazardous components	CAS #	Percent
L-ASCORBIC ACID	50-81-7	90 - 100

## 4. First Aid Measures

**First aid procedures**  
**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.  
**Skin contact** Rinse skin with water/shower. Get medical attention if irritation develops and persists.  
**Inhalation** If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.  
**Ingestion** Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.  
**General advice** If you feel unwell, seek medical advice (show the label where possible).

## 5. Fire Fighting Measures

**Flammable properties** No unusual fire or explosion hazards noted. The product is not flammable. Dust may form explosive mixture with air.  
**Extinguishing media**  
**Suitable extinguishing media** Water. Water spray. Dry powder.

## Protection of firefighters

**Protective equipment and precautions for firefighters** In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out.

**Specific methods** In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

## 6. Accidental Release Measures

**Personal precautions** Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits.

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

**Methods for containment** If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product.

**Methods for cleaning up** Collect dust using a vacuum cleaner equipped with HEPA filter. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Following product recovery, flush area with water.

## 7. Handling and Storage

**Handling** Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid contact with eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Wash thoroughly after handling. Handle and open container with care.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Guard against dust accumulation of this material. Use care in handling/storage.

## 8. Exposure Controls / Personal Protection

**Engineering controls** Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**Hand protection** Rubber gloves.

**Eye / face protection** Wear chemical goggles.

**Skin protection** No special protective equipment required.

**General hygiene considerations** Do not breathe dust. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice.

**General** Not normally needed.

## 9. Physical & Chemical Properties

**Appearance** Crystalline powder.

**Color** white or off-white.

**Odor** Slight characteristic odor.

**Odor threshold** Not available.

**Physical state** Solid.

**Form** Solid.

**pH** 2 - 3 (5% aqueous solution)

**Melting point** 374 - 377.6 °F (190 - 192 °C) estimated

**Freezing point** 374 - 377.6 °F (190 - 192 °C)

**Boiling point** Not available.

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability** Not available.

<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	0.0079 kPa at 192.15°C
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	1.65
<b>Relative density</b>	1.6498 g/cm <sup>3</sup> estimated
<b>Solubility (water)</b>	soluble
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Percent volatile</b>	0 % estimated
<b>Molecular weight</b>	176.1200 g/mol
<b>Molecular formula</b>	C <sub>6</sub> H <sub>8</sub> O <sub>6</sub>

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Aqueous solutions are rapidly oxidized by air.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

<b>Local effects</b>	Inhalation of dusts may cause respiratory irritation.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Further information</b>	This product has no known adverse effect on human health.

## 12. Ecological Information

<b>Ecotoxicity</b>	This product has no known eco-toxicological effects.
<b>Persistence and degradability</b>	Not available.

## 13. Disposal Considerations

<b>Disposal instructions</b>	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Not applicable.

## 14. Transport Information

<b>DOT</b>	Not regulated as dangerous goods.
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## 15. Regulatory Information

<b>US federal regulations</b>	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.  CERCLA/SARA Hazardous Substances - Not applicable.
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### CERCLA (Superfund) reportable quantity

None

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

### Inventory status

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

## 16. Other Information

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**  
Health: 2  
Flammability: 0  
Physical hazard: 0

**NFPA ratings**  
Health: 2  
Flammability: 0  
Instability: 0

**Disclaimer**  
The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this 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.

**Issue date** 22-Oct-2009

**This data sheet contains changes from the previous version in section(s):** This document has undergone significant changes and should be reviewed in its entirety.