

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** Ascorbic acid

**Other means of identification**

**Product No.:** 4407, 1852, B581, 0939, 0938, 0937, 0936, 8829

**Recommended use and restriction on use**

**Recommended use:** Not available.

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor Information**

**Manufacturer**

Avantor Performance Materials, Inc.  
3477 Corporate Parkway, Suite 200  
Center Valley, PA 18034

Telephone:

Customer Service: 855-282-6867

Fax:

610-573-2610

Contact Person:

Environmental Health & Safety

E-mail:

info@avantormaterials.com

**Emergency telephone number:** CHEMTREC: 1-800-424-9300 within US and Canada

CHEMTREC: 1-703-527-3887 outside US and Canada

## 2. Hazard(s) identification

**Hazard Classification**

Not classified

**Label Elements**

**Hazard Symbol:** No symbol

**Signal Word:** No signal word.

**Hazard Statement:** not applicable

**Precautionary Statement** not applicable

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients

## Substances

| Chemical Identity | Common name and synonyms | CAS number | Content in percent (%)* |
|-------------------|--------------------------|------------|-------------------------|
| L-ASCORBIC ACID   |                          | 50-81-7    | 100%                    |

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

|                             |  |
|-----------------------------|--|
| <b>General information:</b> | Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.                                      |
| <b>Ingestion:</b>           | Rinse mouth thoroughly. Call a POISON CENTER or doctor/physician if you feel unwell.   |
| <b>Inhalation:</b>          | Move to fresh air. Get medical attention if symptoms persist.  |
| <b>Skin Contact:</b>        | Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse. |
| <b>Eye contact:</b>         | Flush thoroughly with water. If irritation occurs, get medical assistance.   |

### Most important symptoms/effects, acute and delayed

**Symptoms:** May cause irritation to skin, eyes, and respiratory tract.

### Indication of immediate medical attention and special treatment needed

**Treatment:** Treat symptomatically. Symptoms may be delayed.

## 5. Fire-fighting measures

**General Fire Hazards:** The product is non-combustible.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** None known.

**Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. In case of fire and/or explosion do not breathe fumes.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

|   |  |
|---|--|
| <b>Personal precautions, protective equipment and emergency procedures:</b> | Keep unauthorized personnel away. Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. |
| <b>Methods and material for containment and cleaning up:</b>                | Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. |
| <b>Notification Procedures:</b>   | Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.              |
| <b>Environmental Precautions:</b>   | Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.             |

## 7. Handling and storage

|  |   |
|--|---|
| <b>Precautions for safe handling:</b>                                | Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Avoid inhalation of dust. Wash thoroughly after handling. |
| <b>Conditions for safe storage, including any incompatibilities:</b> | Keep containers tightly closed. Store in cool, dry place. Store in a well-ventilated place.   |

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

None of the components have assigned exposure limits.

#### Appropriate Engineering Controls

No data available.

### Individual protection measures, such as personal protective equipment

|                                |   |
|--------------------------------|---|
| <b>General information:</b>    | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
| <b>Eye/face protection:</b>    | Use tight fitting goggles if dust is generated.   |
| <b>Skin Protection</b>         |   |
| <b>Hand Protection:</b>        | Wear protective gloves.   |
| <b>Skin protection:</b>        | Wear suitable protective clothing.  |
| <b>Respiratory Protection:</b> | In case of inadequate ventilation use suitable respirator.  |
| <b>Hygiene measures:</b>       | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.  |

## 9. Physical and chemical properties

## Appearance

|  |   |
|--|---|
| <b>Physical state:</b>                                       | solid   |
| <b>Form:</b>   | Crystals or powder  |
| <b>Color:</b>  | White to slightly yellow  |
| <b>Odor:</b>   | Odorless  |
| <b>Odor threshold:</b>                                       | No data available.  |
| <b>pH:</b>   | 2 - 3 pH = 3 (5 mg/mL); pH = 2 (50 mg/mL)   |
| <b>Melting point/freezing point:</b>                         | 190 °C  |
| <b>Initial boiling point and boiling range:</b>              | No data available.  |
| <b>Flash Point:</b>  | not applicable  |
| <b>Evaporation rate:</b>                                     | No data available.  |
| <b>Flammability (solid, gas):</b>                            | No data available.  |
| <b>Upper/lower limit on flammability or explosive limits</b> |   |
| <b>Flammability limit - upper (%):</b>                       | No data available.  |
| <b>Flammability limit - lower (%):</b>                       | No data available.  |
| <b>Explosive limit - upper (%):</b>                          | No data available.  |
| <b>Explosive limit - lower (%):</b>                          | No data available.  |
| <b>Vapor pressure:</b>                                       | 0,01 kPa (192,15 °C)  |
| <b>Vapor density:</b>  | No data available.  |
| <b>Relative density:</b>                                     | 1,65 (20 °C)  |
| <b>Solubility(ies)</b>                                       |   |
| <b>Solubility in water:</b>                                  | 330 g/l   |
| <b>Solubility (other):</b>                                   | absolute ethanol: 0,02 g/ml<br>propylene glycol: 0,05 g/ml<br>USP glycerol: 0,01 g/ml |
| <b>Partition coefficient (n-octanol/water):</b>              | No data available.  |
| <b>Auto-ignition temperature:</b>                            | No data available.  |
| <b>Decomposition temperature:</b>                            | No data available.  |
| <b>Viscosity:</b>  | No data available.  |
| <b>Other information</b>                                     |   |
| <b>Molecular weight:</b>                                     | 176,12 g/mol (C <sub>6</sub> H <sub>8</sub> O <sub>6</sub> )                          |

## 10. Stability and reactivity

|  |   |
|--|---|
| <b>Reactivity:</b>                         | No dangerous reaction known under conditions of normal use. |
| <b>Chemical Stability:</b>                 | Material is stable under normal conditions.                 |
| <b>Possibility of hazardous reactions:</b> | Hazardous polymerization does not occur.                    |
| <b>Conditions to avoid:</b>                | Contact with incompatible materials.                        |
| <b>Incompatible Materials:</b>             | Strong oxidizing agents. Alkalies. Iron. Copper.            |
| <b>Hazardous Decomposition Products:</b>   | By heating and fire, irritating vapors/gases may be formed. |

## 11. Toxicological information

### Information on likely routes of exposure

|                   |   |
|-------------------|---|
| <b>Ingestion:</b> | May cause irritation of the gastrointestinal tract. |
|-------------------|---|

|                      |   |
|----------------------|---|
| <b>Inhalation:</b>   | May cause irritation to the respiratory system. |
| <b>Skin Contact:</b> | May cause irritation.                           |
| <b>Eye contact:</b>  | May cause temporary eye irritation.             |

**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)****Oral**

**Product:** LD 50 (Rat): 11.900 mg/kg

**Dermal**

**Product:** No data available.

**Inhalation**

**Product:** No data available.

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** May cause skin irritation.

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**Respiratory or Skin Sensitization**

**Product:** Not a skin sensitizer.

**Carcinogenicity**

**Product:** This substance has no evidence of carcinogenic properties.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**ACGIH Carcinogens:**

No carcinogenic components identified

**Germ Cell Mutagenicity****In vitro**

**Product:** No mutagenic components identified

**In vivo**

**Product:** No mutagenic components identified

**Reproductive toxicity**

**Product:** No components toxic to reproduction

**Specific Target Organ Toxicity - Single Exposure**

**Product:** None known.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** None known.

**Aspiration Hazard**

**Product:** Not classified

**Other effects:** None known.

## 12. Ecological information

**Ecotoxicity:**
**Acute hazards to the aquatic environment:**
**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Chronic hazards to the aquatic environment:**
**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**
**Biodegradation**

**Product:** There are no data on the degradability of this product.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative Potential**
**Bioconcentration Factor (BCF)**

**Product:** No data available on bioaccumulation.

**Partition Coefficient n-octanol / water (log K<sub>ow</sub>)**

**Product:** No data available.

**Mobility in Soil:**

The product is water soluble and may spread in water systems.

**Other Adverse Effects:**

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## 13. Disposal considerations

**Disposal instructions:**

Discharge, treatment, or disposal may be subject to national, state, or local laws.

**Contaminated Packaging:**

Since emptied containers retain product residue, follow label warnings even

after container is emptied.

## 14. Transport information

### **TDG**

Not regulated.

### **IMDG**

Not regulated.

### **IATA**

Not regulated.

## 15. Regulatory information

### **Canada Federal Regulations**

#### **List of Toxic Substances (CEPA, Schedule 1)**

Not Regulated

#### **Export Control List (CEPA 1999, Schedule 3)**

Not Regulated

#### **National Pollutant Release Inventory (NPRI)**

##### **Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**

NPRI PT5                      Not Regulated

##### **Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Parts 1-4)**

NPRI                              Not Regulated

### **Greenhouse Gases**

Not Regulated

### **Controlled Drugs and Substances Act**

CA CDSI                      Not Regulated

CA CDSII                      Not Regulated

CA CDSIII                      Not Regulated

CA CDSIV                      Not Regulated

CA CDSV                      Not Regulated

CA CDSVII                      Not Regulated

CA CDSVIII                      Not Regulated

### **Precursor Control Regulations**

Not Regulated

### **International regulations**

#### **Montreal protocol**

not applicable

#### **Stockholm convention**

not applicable

**Rotterdam convention**

not applicable

**Kyoto protocol**

not applicable

**Inventory Status:**

|  |  |
|--|--|
| Australia AICS:                          | On or in compliance with the inventory |
| Canada DSL Inventory List:               | On or in compliance with the inventory |
| EINECS, ELINCS or NLP:                   | On or in compliance with the inventory |
| Japan (ENCS) List:                       | On or in compliance with the inventory |
| China Inv. Existing Chemical Substances: | Not in compliance with the inventory.  |
| Korea Existing Chemicals Inv. (KECI):    | On or in compliance with the inventory |
| Canada NDSL Inventory:                   | Not in compliance with the inventory.  |
| Philippines PICCS:                       | On or in compliance with the inventory |
| US TSCA Inventory:                       | On or in compliance with the inventory |
| New Zealand Inventory of Chemicals:      | On or in compliance with the inventory |
| Japan ISHL Listing:                      | On or in compliance with the inventory |
| Japan Pharmacopoeia Listing:             | On or in compliance with the inventory |

**16. Other information, including date of preparation or last revision**

|                             |                    |
|-----------------------------|--------------------|
| <b>Issue Date:</b>          | 19.02.2016         |
| <b>Revision Date:</b>       | No data available. |
| <b>Version #:</b>           | 1.0                |
| <b>Further Information:</b> | No data available. |



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