



# Ascorbic Acid Safety Data Sheet

Effective date: April 7, 2016

## Section 1 Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier:

**Product name:** Ascorbic Acid, Vitamin C

**Product number:** Not applicable.

**REACH NO.:** Not applicable.

**CAS-No.:** 50-81-7

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses:** Food and Feed Additive or API.

### 1.3 Details of the supplier of the safety data sheet:

**Company :** Chemistry Connection

**Address:** 253 Sturgis Road, Conway, Arkansas 72034 USA

**Email:** [contact@thechemistryconnection.com](mailto:contact@thechemistryconnection.com)

**Website:** [www.chemistryconnection.com](http://www.chemistryconnection.com)

### 1.4 Emergency telephone number:

During business hours (8am - 5pm Mon-Fri)  
+1 888-583-7738

## Section 2 Hazards Identification

### 2.1 Classification of the substance or mixture:

Not a hazardous substance or mixture.

This substance is not classified as dangerous.

### 2.2 Label element: Not applicable.



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**2.3 Other hazard:** No particular hazards known.

### Section 3 Composition/Information on Ingredients

#### 3.1 Substances

**Synonyms:** Vitamin C; L-Ascorbic acid; (5R)-5-[(1S)-1,2-dihydroxyethyl]-3,4-dihydroxyfuran-2(5H)-one

**CAS number:** 50-81-7

**EINECS number:** 200-066-2

**Formula:** C<sub>6</sub>H<sub>8</sub>O<sub>6</sub>

**Molecular mass:** 176.12 g/mol

No components need to be disclosed according to the applicable regulations.

### Section 4 First-aid Measures

#### 4.1 Description of first aid measures:

**Eye contact:** Rinse immediately with tap water for 10 minutes - open eyelids forcibly.

**Skin contact:** Remove contaminated clothes; wash affected skin with water and soap; do not use any solvents.

**Inhalation:** Remove the casualty to fresh air and keep him/her calm; in the event of symptoms get medical treatment.

**Swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water.

#### 4.2 Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labeling(see section 2.2) and /or in section 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed:

Not applicable.

### Section 5 Fire-fighting Measures

#### 5.1 Extinguishing media:

**Suitable extinguishing media:** Water spray jet, dry powder, foam, carbon dioxide.



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**5.2 Special hazards arising from the substance or mixture:** Severe dust explosion hazard.

**5.3 Advice for fire-fighters:** Precipitate gases/vapors/mists with water spray.

**5.4 Additional information:** Not applicable.

### Section 6 Accidental Release Measures

**6.1 Personal precautions, protective equipment and emergency procedures:**

Avoid dust formation. Avoid breathing vapours, mist or gas.

For personal protection see section 8.

**6.2 Environmental precautions:** Do not let product enter drains.

**6.3 Methods and material for containment and cleaning up:**

Sweep up and shove. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections:** For disposal see section 13.

### Section 7 Handling and Storage

**7.1 Precautions for safe handling:**

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities:**

Store in a non-metallic and sealed container, keep in a dry place and away from light.

**7.3 Specific end uses:**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

### Section 8 Exposure Controls/Personal Protection

**8.1 Control parameters:** Components with workplace control parameters.

**8.2 Exposure controls:**

**8.2.1 Appropriate engineering measures:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended



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exposure limits.

### **8.2.2 Personal protective equipment:**

**Respiratory protection:** In case of high dust concentrations: particle mask or respirator with independent air supply.

**Skin protection:**

**Body protection:** Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hand protection:** Protective gloves (e.g. made of natural rubber).

**Other skin protection measures:** Suitable skin protection.

**Eye/ Face protection:** Safety glasses.

**8.2.3 Environmental exposure controls:** Do not let product enter drains.

## Section 9 Physical and Chemical Properties

### **9.1 Information on basic physical and chemical properties:**

- a) **Appearance:** A white or almost white, crystalline powder or colorless crystals.
- b) **Odor:** Almost odorless, with sharp acidic, pleasant taste.
- c) **Odor Threshold:** Not applicable.
- d) **pH:** 2.1-2.6 (5 % aqueous solution).
- e) **Melting point/freezing point:** About 190°C (with decomposition).
- f) **Initial boiling point and boiling range:** Not applicable.
- g) **Flash point:** Not applicable.
- h) **Evaporation rate:** Not applicable.
- i) **Flammability (solid, gas):** Not applicable.
- j) **Upper/lower flammability or explosive limits:** Not applicable.
- k) **Vapour pressure:** Not applicable.
- l) **Vapour density:** Not applicable.



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- m) **Relative density:** Not applicable.
- n) **Water solubility:** Free soluble in water.
- o) **Partition coefficient:** Not applicable.
- p) **Auto-ignition temperature:** Not applicable.
- q) **Decomposition temperature:** Not applicable.
- r) **Viscosity:** Not applicable.
- s) **Explosive properties:** Not applicable.
- t) **Oxidizing properties:** Not applicable.

9.2 Other safety information: Not applicable.

### Section 10 Stability and Reactivity

10.1 **Reactivity:** Not applicable.

10.2 **Chemical Stability:** Stable at room temperature under exclusion of humidity.

10.3 **Possibility of hazardous reactions:** Not applicable.

10.4 **Conditions to avoid:** Humidity; warming.

10.5 **Incompatible materials:** Oxidizing agents, atmospheric oxygen, bases, metals, metal salts.

10.6 **Hazardous decomposition products:**

Other decomposition products - Not applicable.

In the event of fire: see section 5.

### Section 11 Toxicological Information

11.1 **Information on toxicological effects:**

**Acute toxicity:** LD50 11'900 mg/kg (oral, rat)

LD50 8'000 mg/kg (oral, mouse)

**Skin corrosion/irritation:** Not applicable.

**Serious eye damage/eye irritation:** Not applicable.

**Respiratory or skin sensitization:** Not applicable.

**Germ cell mutagenicity:** Not applicable.



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**Carcinogenicity:** Not carcinogenic (several species)

**Reproductive toxicity:** Not teratogenic, not embryo toxic

**Specific target organ toxicity - single exposure:** Not applicable.

**Specific target organ toxicity - repeated exposure:** Not applicable.

**Aspiration hazard:** Not applicable.

**Additional Information:** None.

### Section 12 Ecological Information

**12.1 Toxicity:** Not applicable.

**12.2 Persistence and degradability:** Not applicable.

**12.3 Bioaccumulative potential:** Not applicable.

**12.4 Mobility in soil:** Not applicable.

**12.5 Results of PBT and vPvB assessment:** Not applicable.

**12.6 Other adverse effects:** Not applicable.

### Section 13 Disposal Considerations

**13.1 Waste treatment methods:**

**Product:** Observe local/national regulations regarding waste disposal; drain very small quantities into wastewater treatment plant; large amounts: incinerate in qualified installation.

**Contaminated packaging:** Dispose of as unused product.

### Section 14 Transport Information

**14.1 UN number:**

**ADR/RID:** -

**IMDG:** -

**IATA:** -

**14.2 UN proper shipping name**

**ADR/RID:** Not dangerous goods



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**IMDG:** Not dangerous goods

**IATA:** Not dangerous goods

### 14.3 Transport hazard class(es)

**ADR/RID:** -

**IMDG:** -

**IATA:** -

### 14.4 Packaging group

**ADR/RID:** -

**IMDG:** -

**IATA:** -

### 14.5 Environmental hazards

**ADR/RID:** no

**IMDG Marine pollutant:** no

**IATA:** no

**14.6 Special precautions for user:** Not applicable.

## Section 15 Regulatory Information

No classification and labeling according to EU directives; this product is on the European Inventory of Existing Commercial Chemical Substances.

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

Not applicable.

### 15.2 Chemical Safety Assessment:

For this product a chemical safety assessment was not carried out

## Section 16 Other Information

### Further information:

**Use:** Additive for use in food and pharmaceuticals; feed additive.

**Biological activity:** 1 I.U. (international unit) of vitamin C corresponds to the activity of 50



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µg of pure ascorbic acid.

**Reference literature:** ISO11014-1; General rules for preparation of chemical safety data sheet (CSDS); CLP Regulation (EC).

The information in this safety data sheet is based on current scientific knowledge. It should not be taken as expressing or implying any warranty concerning product characteristics.