

**Safety Data Sheet****ASCORBIC ACID****EFFECTIVE DATE: 2015-07-16****1 Product and Company Identification**

- 1.1 Product Name:** Ascorbic Acid
- 1.2 Catalog Number:** 07157
- 1.3 Product Use:** Cell Culture
- 1.4 Manufacturer/Supplier:** STEMCELL Technologies  
Suite 500-1618 Station Street  
Vancouver, British Columbia V6A 1B6 Canada
- 1.5 In Case of Emergency Call:** 1-800-667-0322

**2 Hazards Identification**

- 2.1 Classification of the substance or mixture**  
Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).
- 2.2 Label elements**  
Not a hazardous substance or mixture.
- 2.3 Other hazards** No data available

**3 Composition / Information on Ingredients****3.1 Substances**

- Synonyms** Vitamin C, Antiscorbutic factor, L-Threoascorbic acid
- Molecular formula**  $C_6H_8O_6$
- Molecular weight** 176.12 g/mol

Hazardous Components (Chemical Name)	CAS #	Concentration	EC #
Ascorbic acid	50-81-7	≤100%	200-066-2

**4 First Aid Measures****4.1 Description of first aid measures**

- 4.1.1 If inhaled**  
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
- 4.1.2 In case of skin contact**  
Wash off with soap and plenty of water.
- 4.1.3 In case of eye contact**  
Flush eyes with water as a precaution.
- 4.1.4 If 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 section 2.2 and/or in section 11.

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No data available

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**5 Fire Fighting Measures****5.1 Extinguishing Media****5.1.1 Suitable Extinguishing Media**

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**5.1.2 Unsuitable Extinguishing Media**

No data available

**5.2 Special hazards arising from the substance or mixture****5.2.1 Flammable Properties and Hazards**

No data available

**5.2.2 Flash Pt**

No data available

**5.2.3 Autoignition Pt**

No data available

**5.2.4 Explosive Limits**

LEL: No data available

UEL: No data available

**5.2.5 Hazardous Combustion Products**

Hazardous decomposition products formed under fire conditions - Carbon oxides

**5.3 Fire Fighting Instructions**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

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**6 Accidental Release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

Avoid dust formation.

For personal protection see section 8.

**6.2 Environmental precautions**

No special environmental precautions required.

**6.3 Methods and materials for containment and cleaning up**

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

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**7 Handling and Storage****7.1 Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

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### 7.2 Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Light sensitive. Keep in a dry place.

Storage class (TRGS 510): Non Combustible Solids

## 8 Exposure Controls/Personal Protection

### 8.1 Exposure limits

Contains no substances with occupational exposure limit values.

### 8.2 Engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

### 8.3 Personal protective equipment

#### 8.3.1 Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### 8.3.2 Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### 8.3.3 Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### 8.3.4 General hygiene considerations

General industrial hygiene practice.

#### 8.3.5 Environmental exposure controls

No special environmental precautions required.

## 9 Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance	Powder
Odour	No data available
Odour threshold	No data available
pH	1.0 - 2.5 at 176 g/L at 25°C (77°F)
Melting point/freezing point	Melting point/range: 190 - 194°C (374 - 381°F) - dec.
Boiling point/boiling range	No data available
Flash point	No data available
Evaporation rate	No data available

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Flammability (solid, gas)	May form combustible dust concentrations in air
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubility	Water: 176 g/L at 20°C (68°F) - completely soluble
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

<b>10.1 Reactivity</b>	No data available
<b>10.2 Chemical stability</b>	Stable under recommended storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	No data available
<b>10.4 Conditions to avoid</b>	Light
<b>10.5 Incompatible materials</b>	Strong oxidizing agents
<b>10.6 Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. - Carbon oxides

### 11 Toxicological Information

<b>11.1 Acute toxicity</b>	
Oral:	LD50 Oral - Rat - 11,900 mg/kg
	Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye:Lacrimation. Behavioral:Somnolence (general depressed activity). Diarrhoea
Inhalation:	No data available
Dermal:	No data available
Other:	No data available
<b>11.2 Skin corrosion/irritation</b>	No data available
<b>11.3 Serious eye damage/eye irritation</b>	No data available
<b>11.4 Respiratory and/or skin sensitization</b>	No data available
<b>11.5 Germ cell mutagenicity</b>	
	Genotoxicity in vitro - Mouse - Liver
	Other mutation test systems
	Genotoxicity in vivo - Mouse - Intraperitoneal
	Micronucleus test

**Safety Data Sheet****ASCORBIC ACID****EFFECTIVE DATE: 2015-07-16****11.6 Carcinogenicity**

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**11.7 Reproductive toxicity**

No data available

**11.8 Specific target organ toxicity - single exposure**

No data available

**11.9 Specific target organ toxicity - repeated exposure**

No data available

**11.10 Aspiration hazard**

No data available

**11.11 Potential health effects**

- Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
- Ingestion: May be harmful if swallowed.
- Skin: May be harmful if absorbed through skin. May cause skin irritation.
- Eyes: May cause eye irritation.

**11.12 Signs and symptoms of exposure**

Chronic ingestion of large doses may cause gastrointestinal disturbances including nausea and diarrhea, urinary effects involving urine acidification, oxalate and uric crystallization in the bladder and kidney, and decreased reaction times and psychomotor coordination.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**11.13 RTECS #** CI7650000

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**12 Ecological Information**

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|---|-------------------|
| <b>12.1 Toxicity</b>                      | No data available |
| <b>12.2 Persistence and degradability</b> | No data available |
| <b>12.3 Bioaccumulative potential</b>     | No data available |
| <b>12.4 Mobility in soil</b>              | No data available |
| <b>12.5 Other adverse effects</b>         | No data available |

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**13 Disposal Considerations****13.1 Waste disposal method**

Offer surplus and non-recyclable solutions to a licensed disposal company.

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### 13.2 Contaminated packaging

Dispose of as unused product.

## 14 Transport Information

### 14.1 UN number

No data available

### 14.2 UN proper shipping name

DOT	Not dangerous goods
ADR/RID	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

### 14.3 Transport hazard class(es)

No data available

### 14.4 Packing group

No data available

### 14.5 Environmental hazards

No data available

### 14.6 Special precautions

No data available

## 15 Regulatory Information

### 15.1 USA

#### SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right To Know Components

Component	CAS #	Revision Date
Ascorbic acid	50-81-7	

#### New Jersey Right To Know Components

Component	CAS #	Revision Date
Ascorbic acid	50-81-7	

#### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### 15.2 EU

This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

### 15.3 Canada

Not WHMIS controlled

This SDS was prepared in accordance with Hazardous Products Regulations (HPR) and WHMIS 2015.

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**16 Other Information****16.1 Prepared by:** Quality Control, STEMCELL Technologies Inc.**16.2 Revision:** N/A

**16.3 Notice:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product. The information contained in this Safety Data Sheet (SDS) is current as of the Effective Date shown in this document and may be subject to amendment by STEMCELL Technologies Inc.

**16.4 Disclaimer:** **THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.**