



# Safety Data Sheet

## L(+)-Ascorbic Acid ACS

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### 1. PRODUCT AND COMPANY IDENTIFICATION

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**Product Name:** L(+)-Ascorbic Acid ACS

**Synonyms/Generic Names:** L-ascorbic acid, Ascorbic acid, Vitamin C

**Product Number:** 0001

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information:** 920-623-2140 (Monday-Friday 8:00-4:30)  
[www.columbuschemical.com](http://www.columbuschemical.com)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

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### 2. HAZARDS IDENTIFICATION

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**Signal Word:** None

**Pictograms:** None

**GHS Classification:**

Not a hazardous substance according to GHS.	
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**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

None	
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**Precautionary Statements:**

None	
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**Potential Health Effects**

<b>Eyes</b>	May cause eye irritation.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Skin</b>	May cause skin irritation.
<b>Ingestion</b>	May be harmful if swallowed.

**NFPA Ratings**

Health	0
Flammability	2
Reactivity	1
Specific hazard	Not Available

**HMIS Ratings**

Health	0
Fire	2
Reactivity	1

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Ascorbic acid	>99	50-81-7	200-066-2	C <sub>6</sub> H <sub>8</sub> O <sub>6</sub>	176.12 g/mol

**4. FIRST-AID MEASURES**

<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
<b>Skin</b>	Flush with plenty of water and wash using soap.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water.

**5. FIREFIGHTING MEASURES**

<b>Suitable (and unsuitable) extinguishing media</b>	Use appropriate media for adjacent fire. Use flooding quantities of water to cool containers.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (sulfur oxides, sodium oxides) under fire conditions. See also Stability and Reactivity section.

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Sweep up, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste or cleanup materials in accordance with local regulations.

**7. HANDLING AND STORAGE****Precautions for safe handling**

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

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

Store in a cool, dry, well ventilated area. Isolate from oxidizing materials. Keep away from incompatible materials (see section 10 for incompatibilities).

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**


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**Occupational Exposure Controls:** Contains no substances with occupational exposure limit values.

**Personal Protection**

<b>Eyes</b>	Wear chemical safety glasses or goggles.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, apron or lab coat.
<b>Other</b>	Not Available

**Other Recommendations**

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**


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Appearance (physical state, color, etc.)	Crystalline powder, white-off white
Odor	Odorless
Odor threshold	Not Available
pH	2.2 – 2.5 (5%) as an aqueous solution
Melting point/freezing point	190 – 192°C with decomposition
Initial boiling point and boiling range	Not Available
Flash point	Not Applicable
Evaporation rate	Not Available
Flammability (solid, gas)	May form combustible dust concentration in air
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	<0.001 hPa (at 25°C; calculated (citation from literature))
Vapor density	Not Available
Relative density	2.68 g/mL at 25°C (77°F)
Solubility (ies)	ca. 300g/l (20°C)
Partition coefficient: n-octanol/water	log Pow -2.0
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

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**10. STABILITY AND REACTIVITY**


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<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Dust may form explosive mixture in air.
<b>Conditions to Avoid</b>	Exposure to air (as aqueous solution)
<b>Incompatible Materials</b>	Oxidizing agents, bases
<b>Hazardous Decomposition Products</b>	No decomposition when used as directed.

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity

<b>Dermal</b>	ATEmix >5,000 mg/kg
<b>Eyes</b>	Not Available
<b>Inhalation</b>	Not Available
<b>Oral</b>	LD50 –Rat – 11,290 mg/kg
<b>Skin corrosion/ irritation</b>	No skin irritation (Rabbit, OECD Test Guideline 404, 4h)
<b>Serious eye damage/ eye irritation</b>	No eye irritation (Rabbit, OECD Test Guideline 405) Dust contact with the eyes can lead to mechanical irritation.

### Carcinogenicity

<b>IARC</b>	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.
<b>ACGIH</b>	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.
<b>NTP</b>	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.
<b>OSHA</b>	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.

### Signs & Symptoms of Exposure

<b>Skin</b>	Irritation, redness, itchiness.
<b>Eyes</b>	Irritation, watering eyes.
<b>Respiratory</b>	Irritation, coughing.
<b>Ingestion</b>	Irritation, nausea.

<b>Chronic Toxicity</b>	Not Available
<b>Teratogenicity</b>	Not Teratogenic
<b>Genotoxicity in vivo</b>	No indication for carcinogenicity
<b>Embryotoxicity</b>	Not Embryotoxic
<b>Specific Target Organ Toxicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Did not cause sensitization. (Guinea pig, Optimization Test (Mauer))

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

<b>Aquatic Vertebrate</b>	LC50 – Oncorhynchus mykiss (rainbow trout) – 1.020 mg/l (96h) (OECD Test Guideline 203)
<b>Aquatic Invertebrate</b>	Not Available
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Well inherently biodegradable 100% (15 d) 97% (5 d) (OECD Test Guideline 203)
<b>Bioaccumulative Potential</b>	Unlikely
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	The substance does not fulfil the PBT and vPvB criteria
<b>Other Adverse Effects</b>	Not Available

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### 13. DISPOSAL CONSIDERATIONS

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<b>Waste Product or Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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### 14. TRANSPORTATION INFORMATION

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US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IMDG	Not Dangerous Goods
Marine Pollutant	No
IATA/ICAO	Not Dangerous Goods

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### 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
Massachusetts: Toxic or Hazardous Substance List	Not Listed
Pennsylvania: Hazardous Substance List	Not Listed
New Jersey: Right to Know Hazardous Substance List	Not Listed
Rhode Island: Hazardous Substance List	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	No SARA Hazards
SARA 312	No SARA Hazards
SARA 313	Not Listed
WHMIS Canada	Not Listed

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### 16. OTHER INFORMATION

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Revision	Date
Original	07/21/2020

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.