



Safety Data Sheet

Ascorbic Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ascorbic Acid

Synonyms/Generic Names: Vitamin C

SDS Number: 68.00

Product Use: For Educational Use Only

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

For More Information Contact: Ward's Science
5100 West Henrietta Rd.
PO Box 92912-9012
Rochester, NY 14692
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

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

2. HAZARDS IDENTIFICATION

OSHA Hazards: No Known OSHA Hazards

Target Organs: None

Signal Words: None

Pictograms: None

GHS Classification:

| | |
|---|--|
| Not a dangerous substance according to GHS. | |
|---|--|

GHS Label Elements, including precautionary statements:

Hazard Statements:

| | |
|------|--|
| None | |
|------|--|

Precautionary Statements:

| | |
|------|--|
| None | |
|------|--|

Potential Health Effects

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

NFPA Ratings

| | |
|------------------------|---------------|
| Health | 1 |
| Flammability | 1 |
| Reactivity | 0 |
| Specific hazard | Not Available |

HMIS Ratings

| | |
|-------------------|---|
| Health | 1 |
| Fire | 1 |
| Reactivity | 0 |
| Personal | E |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight % | CAS # | EINECS# / ELINCS# | Formula | Molecular Weight |
|------------------|-----------------|--------------|--------------------------|--|-------------------------|
| L-Ascorbic Acid | >95 | 50-81-7 | 200-066-2 | C ₆ H ₈ O ₆ | 176.12 g/mol |

4. FIRST-AID MEASURES

| | |
|-------------------|---|
| Eyes | Flush eyes with water as a precaution. |
| Inhalation | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. |
| Skin | Wash off with soap and plenty of water. |
| Ingestion | Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. |

5. FIRE-FIGHTING MEASURES

| | |
|--|---|
| Suitable (and unsuitable) extinguishing media | Product may be flammable at high temperatures. Use carbon dioxide, water spray, alcohol resistant foam or dry chemical. Use appropriate media for adjacent fire. Cool unopened containers with water. |
| Special protective equipment and precautions for firefighters | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. |
| Specific hazards arising from the chemical | Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section). |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--|--|
| Personal precautions, protective equipment and emergency procedures | See section 8 for recommendations on the use of personal protective equipment. |
| Environmental precautions | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements. |
| Methods and materials for containment and cleaning up | Sweep up and shovel. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with 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.

Conditions for safe storage, including any incompatibilities

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Contains no substances with occupational exposure limit values.

Personal Protection

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

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Appearance (physical state, color, etc.) | White to slightly yellow crystals or powder |
| Odor | Odorless |
| Odor threshold | Not Available |
| pH | 1.0-2.5 @ 176 g/l @ 25°C (77°F) |
| Melting point/freezing point | 190°C (374°F) |
| Initial boiling point and boiling range | Not Available |
| Flash point | Not Flammable |
| Evaporation rate | Not Available |
| Flammability (solid, gas) | Not Flammable |
| Upper/lower flammability or explosive limit | Not Flammable |
| Vapor pressure | Not Available |
| Vapor density | Not Available |
| Relative density | Not Available |
| Solubility (ies) | Completely soluble in water. |
| Partition coefficient: n-octanol/water | Not Available |
| Auto-ignition temperature | Not Available |
| Decomposition temperature | Not Available |

10. STABILITY AND REACTIVITY

| | |
|---|-------------------------|
| Chemical Stability | Stable |
| Possibility of Hazardous Reactions | Will not occur. |
| Conditions to Avoid | Light, moist air. |
| Incompatible Materials | Strong oxidizing agents |
| Hazardous Decomposition Products | Carbon oxides |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

| | |
|--------------------|--|
| Skin | Not Available |
| Eyes | Not Available |
| Respiratory | Not Available |
| Ingestion | LD50 Oral – rat – 11,900 mg/kg LD50 Oral – mouse – 3,367 mg/kg Remarks: Sense organs and special senses (Nose, eye, ear, and taste): Eye Lacrimation. Behavioral: Somnolence (general depressed activity) |

Carcinogenicity

| | |
|--------------|--|
| IARC | No components 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 components 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 components 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 components 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

| | |
|--------------------|---|
| Skin | Redness, itching. |
| Eyes | Redness, tearing, itching, burning, conjunctivitis. |
| Respiratory | Irritation of mucous membranes, coughing, wheezing, shortness of breath. |
| Ingestion | Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. |

| | |
|---------------------------------------|---|
| Chronic Toxicity | Not Available |
| Teratogenicity | Not Available |
| Mutagenicity | Genotoxicity in vitro – mouse – Liver Other mutation test systems Genotoxicity in vivo – mouse – Intraperitoneal Micronucleus test |
| Embryotoxicity | Not Available |
| Specific Target Organ Toxicity | Not Available |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| | |
|-----------------------------|---------------|
| Aquatic Vertebrate | Not Available |
| Aquatic Invertebrate | Not Available |
| Terrestrial | Not Available |

| | |
|--------------------------------------|---------------|
| Persistence and Degradability | Not Available |
| Bioaccumulative Potential | Not Available |
| Mobility in Soil | Not Available |
| PBT and vPvB Assessment | Not Available |
| Other Adverse Effects | Not Available |

13. DISPOSAL CONSIDERATIONS

| | |
|---------------------------|--|
| Waste Residues | 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. |
| Product Containers | 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.

14. TRANSPORTATION INFORMATION

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

15. REGULATORY INFORMATION

| | |
|---------------------------|---|
| TSCA Inventory Status | All ingredients are listed on the TSCA inventory. |
| DSCL (EEC) | All ingredients are listed on the DSCL inventory. |
| California Proposition 65 | 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 |

16. OTHER INFORMATION

| Revision | Date |
|------------|------------|
| Revision 1 | 01/30/2013 |
| | |
| | |

Disclaimer: Columbus Chemical Industries, Inc. ("Columbus") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Columbus has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. COLUMBUS MAKES NO 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.