

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: December 16, 2020

1 Identification

- **Product identifier**
- **Trade name:** Ascorbic Acid, ACS Grade
- **Product code:** AA1330-K
- **CAS Number:**
50-81-7
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover, PA 17331 USA
Tel +1 (717)632-1291
Toll-Free: (866)632-1291
info@aquaphoenixsci.com
- **Distributor:**
AquaPhoenix Scientific
860 Gitts Run Road,
Hanover, PA 17331
(717) 632-1291
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Combustible Dust May form combustible dust concentrations in air.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:** None.
- **Signal word:** Warning
- **Hazard statements:**
May form combustible dust concentrations in air.
- **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
50-81-7 Ascorbic acid

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4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
 - Brush off loose particles from skin.
 - Rinse with warm water.
 - If skin irritation is experienced, consult a doctor.
- **After eye contact:**
 - Protect unharmed eye.
 - Remove contact lenses if worn.
 - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
 - Rinse out mouth and then drink plenty of water.
 - Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
 - Gastric or intestinal disorders when ingested.
 - Nausea in case of ingestion.
- **Danger:** No relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
 - If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No relevant information available.
- **Special hazards arising from the substance or mixture**
 - May pose a dust explosion hazard if dispersed in air. Avoid ignition sources. Do not smoke.
 - Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
 - Wear self-contained respiratory protective device.
 - Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Ensure adequate ventilation.
- **Environmental precautions**
 - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up**
 - Vacuum or sweep and collect in a suitable container. For a large spill, collect uncontaminated product for possible re-use. Avoid creating dusty conditions.
 - Sweep up and place into an appropriate container.
 - Dispose of the collected material according to regulations.

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· **Reference to other sections**

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling**

· **Precautions for safe handling:**

Prevent formation of dust.
Any deposit of dust which cannot be avoided must be regularly removed.
Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.

· **Information about protection against explosions and fires:** No special measures required.

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

· **Requirements to be met by storerooms and receptacles:** Protect from humidity and water.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.
Do not store together with alkalis (caustic solutions).
Store away from oxidizing agents.
Store away from reducing agents.

· **Further information about storage conditions:**

Keep containers tightly sealed.
Store in dry conditions.

· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Exposure controls**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

· **Engineering controls:** Provide adequate ventilation.

· **Breathing equipment:**

Not required under normal conditions of use.
Use suitable respiratory protective device when high concentrations are present.

· **Protection of hands:**



Protective gloves

· **Material of gloves**

Butyl rubber, BR

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Natural rubber, NR
Nitrile rubber, NBR
Neoprene gloves
Sensibilization by the components in the glove materials is possible.

· **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment** No special requirements.
- **Risk management measures** No special requirements.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· **Appearance:**

· **Form:** Crystalline powder

· **Color:** White

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Melting point/Melting range:** 191 °C (375.8 °F)

· **Boiling point/Boiling range:** Not determined.

· **Flash point:** The product is not flammable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits**

· **Lower:** Not determined.

· **Upper:** Not determined.

· **Oxidizing properties:** Non-oxidizing.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 0.95 g/cm³ (7.93 lbs/gal)

· **Relative density:** Not determined.

· **Vapor density:** Not applicable.

· **Evaporation rate:** Not applicable.

· **Solubility in / Miscibility with**

· **Water at 20 °C (68 °F):** 333 g/l
Soluble.

· **Partition coefficient (n-octanol/water):** Not determined.

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- **Viscosity**
 - Dynamic: Not applicable.
 - Kinematic: Not applicable.
- **Other information** No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Toxic fumes may be released if heated above the decomposition point.
Reacts with strong oxidizing agents.
Reacts with reducing agents.
Reacts with alkali (lyes).
- **Conditions to avoid** Excessive heat.
- **Incompatible materials**
Oxidizers, strong bases, strong acids
Reducing agents.
- **Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

50-81-7 Ascorbic acid

Oral	LD50	11900 mg/kg (rat)
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- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

- **IARC (International Agency for Research on Cancer):**

Substance is not listed.

- **NTP (National Toxicology Program):**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

Substance is not listed.

- **Probable route(s) of exposure:**

Ingestion.
Inhalation.

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Eye contact.

Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** No relevant information available.
- **Repeated dose toxicity:** No relevant information available.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Smaller quantities can be disposed of with household waste.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**
· DOT, ADR/RID/ADN, IMDG, IATA Not regulated.

· **UN proper shipping name**
· DOT, ADR/RID/ADN, IMDG, IATA Not regulated.

· **Transport hazard class(es)**

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· DOT, ADR/RID/ADN, IMDG, IATA	
· Class	Not regulated.
· Packing group	
· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
· Environmental hazards	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 302 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

· Proposition 65 (California)

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause developmental toxicity for females:

Substance is not listed.

· Chemicals known to cause developmental toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· EPA (Environmental Protection Agency):

Substance is not listed.

· IARC (International Agency for Research on Cancer):

Substance is not listed.

· Canadian Domestic Substances List (DSL):

Substance is not listed.

16 Other information

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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers