



LABORATORY CHEMICALS AND CONSUMABLES
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MATERIAL SAFETY DATA SHEET

ASCORBIC ACID

1. Chemical Product and Company information.

Product name: Ascorbic Acid

Contact Information:

Radchem cc
PO Box 166982
Brackendowns
Alberton 1454
Telephone : **011 867 3726 / 2864**

Emergency Telephone Numbers:

2. Hazard Identification

Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation

3. Composition / information on ingredients

CAS #: 50-81-7

Synonym: Vitamin C, Ascorvit, Vicomin C, Acorbate, Ascorbutina, Catavin C, Cevex, Secorbate; 3-Keto-Lgulofuranolactone; 3-Oxo-L-gulofuranolactone

Chemical Name: L-Ascorbic Acid

Chemical Formula: C₆H₈O₆

4. First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult,



give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

5. Fire-fighting measures

Flammability of the Product: May be combustible at high temperature

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available. Slightly explosive in presence of open flames and sparks.

Fire Fighting Media and Instructions: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: As with most powdered organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Special Remarks on Explosion Hazards: Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion

6. Accidental release measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. Handling and storage

Precautions: Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Air Sensitive, sensitive to light. Store in light resistant containers.

8. Exposure controls/personal protection

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.



<p><u>9. Physical and chemical properties</u></p> <p>Physical state and appearance: Solid (Crystals solid, Powdered solid)</p> <p>Odour: Odourless</p> <p>Taste: Acid, Sharp, Pleasant</p> <p>Colour: White. White to slightly yellowish</p> <p>Boiling Point: Decomposition temperature: >190°C</p> <p>Melting Point: Decomposition temperature: >190°C</p> <p>Critical Temperature: 783°C</p> <p>Specific Gravity: 1.65 (Water = 1)</p> <p>Vapour Density: Not available</p> <p>Volatility: Not available</p>	<p>Odour Threshold: Not available</p> <p>Ionicity (in Water): Not available.</p> <p>Dispersion Properties: See solubility in water</p> <p>Solubility: Soluble in hot water. Partially soluble in cold water. Insoluble in diethyl ether. Solubility in Water: 1g/3ml water. Solubility in water: 80% @ 100 deg. C and 45% @ 45 deg. C. Solubility in alcohol: 1g/30 ml alcohol. Solubility in absolute alcohol: 1g/50 ml absolute alcohol. Solubility in glycerol: 1g/100 ml glycerol. Solubility in propylene glycol: 1 g/20 ml propylene glycol. Insoluble in chloroform, benzene, petroleum ether, oils, fats, fat solvents.</p>
<p><u>10. Stability and reactivity</u></p> <p>Stability: The product is stable.</p> <p>Instability Temperature: Not available.</p> <p>Conditions of Instability: Heat, ignition sources, light, air, incompatible materials, dust generation</p> <p>Incompatibility with various substances: Reactive with oxidizing agents</p> <p>Corrosivity: Non-corrosive in presence of glass</p> <p>Special Remarks on Reactivity: Air and light sensitive. Aqueous solutions are rapidly oxidized by air, accelerated by alkalies, iron, copper</p> <p>Special Remarks on Corrosivity: Not available.</p> <p>Polymerization: Will not occur.</p>	
<p><u>11. Toxicological information</u></p> <p>Routes of Entry: Inhalation, Ingestion</p> <p>Toxicity to Animals: Acute oral toxicity (LD50): 3367 mg/kg [Mouse]</p> <p>Chronic Effects on Humans: MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast</p> <p>Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation</p> <p>Special Remarks on Toxicity to Animals: Not available</p> <p>Special Remarks on Chronic Effects on Humans: May affect genetic material (mutagenic). May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data. Human: passes through the placenta, excreted in maternal milk.</p>	

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: May cause skin irritation. Low hazard for normal industrial handling. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Low hazard for normal industrial handling. Ingestion: Ingestion of small amounts during normal industrial handling is a low hazard. Ingestion of large amounts may cause gastrointestinal tract irritation, hypermotility, diarrhoea, acidification of the urine which may cause stones in the urinary tract and may cause renal failure coordination, somnolence), eyes (lacrimation), blood (anaemia). Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect the blood/bone marrow and metabolism. . May also affect behaviour (psychomotor)

12. Ecological information

Ecotoxicity: Not available

BOD5 and COD: Not available

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic

Special Remarks on the Products of Biodegradation: Not available.

13. Disposal considerations

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations

14. Transport information

DOT Classification: Not a DOT controlled material

Identification: : Not applicable

Special Provisions for Transport: Not available.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Radchem CC. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Radchem CC has been advised of the possibility of such damages.

