1. PRODUCT AND COMPANY IDENTIFICATION

Product name: L-Ascorbic acid
Product Number: A5980
Brand: Sigma
Company: Sigma-Aldrich
3505 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone: +1 800-352-5832
Fax: +1 800-325-5052
Emergency Phone #: (314) 776-5555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: L-Threacetic acid, Antioxidant factor, Vitamin C
Form: C6H8O6
Molecular Weight: 176.12 g/mol

3. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
No known OSHA hazards
HMIS Classification
Health Hazard: 0
Flammability: 0
Physical hazards: 0
NFPA Rating
Health Hazard: 0
Fire: 0
Reactivity Hazard: 0

Potential Health Effects

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

4. FIRST AID MEASURES

Ingestion: May be harmful if swallowed.

If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Flammable properties
Flash point: no data available
Ignition temperature: no data available
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters
Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid dust formation.
Environmental precautions
Do not let product enter drains.
Methods for cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CE (EU).

Hand protection
For prolonged or repeated contact use protective gloves.
9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
- Form: solid

**Safety data**
- pH: 1.0 - 2.5 at 176 g/l at 25 °C (77 °F)
- Melting point: 193 °C (379 °F)
- Boiling point: no data available
- Flash point: no data available
- Ignition temperature: no data available
- Lower explosion limit: no data available
- Upper explosion limit: no data available
- Water solubility: 176 g/l at 20 °C (68 °F) - completely soluble

10. STABILITY AND REACTIVITY

**Storage stability**
Stable under recommended storage conditions.

**Conditions to avoid**
Light.

**Materials to avoid**
Strong oxidizing agents.

**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions.
- Carbon oxides

11. TOXICOLOGICAL INFORMATION

**Acute toxicity**
LD50 Oral - rat: 11,900 mg/kg

**Remarks**
Sense Organs & Special Senses (Nose, Eye, Ear, and Taste); Eye: Lachrimation, Behavioral: Somnolence (general depressed activity); Diarrhoea

**Irritation and corrosion**
no data available

**Sensitisation**
no data available

**Chronic exposure**
IAARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogenic by IAARC.

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.

**Genotoxicity in vitro - mouse - Liver**
Other mutation test systems

**Genotoxicity in vivo - mouse - Intrapitoneal**
Micronucleus test

**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 crystalization in the bladder and kidney, and decreased reaction times and psychomotor coordination.

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

**Additional Information**
RTECS: C77650000

12. ECOLOGICAL INFORMATION

**Elimination information (persistence and degradability)**
no data available

**Ecotoxicity effects**
no data available

**Further information on ecology**
no data available

13. DISPOSAL CONSIDERATIONS

**Product**
Observe all federal, state, and local environmental regulations.

**Contaminated packaging**
Dispose of as usual product.

14. TRANSPORT INFORMATION

**DOT (US)**
Not dangerous goods

**IMDG**
Not dangerous goods

**IATA**
Not dangerous goods

15. REGULATORY INFORMATION
OSHA Hazards
No known OSHA hazards

TSCA Status
On TSCA Inventory

DSL Status
All components of this product are on the Canadian DSL list.

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

SARA 313 Components
SARA 313: 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.

SARA 311/312 Hazards
No SARA Hazards

Massachusetts Right To Know Components
No Components Listed

Pennsylvania Right To Know Components

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New Jersey Right To Know Components

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Ascorbic acid

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Further Information
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