Section 1. Product and Company Identification

Product Name: Sodium Erythorbate
CAS Number: 6381-77-7

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801
(914) 654-6800 (914) 654-6899
parchem.com info@parchem.com

Section 2. Hazards Identification

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS): Not a hazardous substance or mixture.

GHS Label Elements

Pictograms: N/A
Signal word: N/A

Hazard and precautionary statements
None

Hazards not otherwise classified (HNOC) or not covered by GHS: Caution! May form combustible dust concentrations in air (during processing). May cause respiratory tract irritation. May cause eye and skin irritation

Emergency Overview: Sodium Erythorbate is a white, odorless solid, in granular or powder form. Dusts of this product may cause mild irritation to the eyes, skin, nose and throat. Sodium Erythorbate is not combustible. Although this compound has test data on the low probability of the hazard of dust explosion, as an organic solid, care should still be taken to prevent the accumulation of dusts. Use extinguishing media appropriate for surrounding fire. Thermal decomposition of this product produces irritating vapors and toxic gases (e.g. carbon monoxide and carbon dioxide). Emergency responders should wear proper personal protective equipment for the releases to which they are responding.
Section 3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Sodium Erythorbate</th>
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</thead>
<tbody>
<tr>
<td>Synonym(s)</td>
<td>Sodium isoascorbate; Sodium salt of D-isoascorbic acid; Sodium salt of D-Araboascorbic acid; Sodium salt of Erythorbic acid</td>
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<tr>
<td>Formula</td>
<td>C₆H₇NaO₆•H₂O</td>
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<td>CAS Number</td>
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<thead>
<tr>
<th>COMPONENT</th>
<th>CAS NUMBER</th>
<th>CONCENTRATION</th>
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<tbody>
<tr>
<td>Sodium Erythorbate</td>
<td>6381-77-7</td>
<td>&gt; 98%</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

Potential Health Effects

**Eyes:** Exposure to particulates or solution of this product may cause mild irritation of the eyes with symptoms such as stinging, tearing, redness and pain. Symptoms are generally alleviated when exposure ends.

**Skin:** This product can cause slight irritation of the skin, especially after prolonged exposures. Repeated skin contact may lead to dermatitis (red, cracked skin). Symptoms are generally alleviated when exposure ends.

**Ingestion:** Ingestion of this product (especially in large volumes) can irritate the tissues of the mouth, esophagus, and other tissues of the digestive system. Symptoms of exposure can include vomiting, diarrhea, and nausea.

**Inhalation:** Breathing dusts or particulates generated by this product can lead to irritation of the nose, throat or respiratory system. Symptoms of such exposure could include coughing, sneezing, and chest discomfort. Symptoms are generally alleviated when exposure ends.

First Aid

**Eyes:** In case of contact with eyes, rinse immediately with plenty of water for at least 20 minutes. Seek immediate medical attention.

**Skin:** Remove all contaminated clothing. For skin contact, wash thoroughly with soap and water for at least 20 minutes. Seek immediate medical attention if irritation develops or persists. Completely decontaminate clothing, shoes, and leather goods before reuse.

**Ingestion:** Have victim rinse mouth thoroughly with water. Do not induce vomiting. Immediately give large amounts of water. If vomiting occurs naturally, rinse mouth and repeat administration of water. Obtain medical advice immediately. Never give anything by mouth to a victim who is unconscious or having convulsions.

**Inhalation:** Remove source of contamination or move victim to fresh air. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult. Get immediate medical attention.

**Notes to Physician:** Provide general supportive measures and treat symptomatically.
Section 5. Firefighting Measures

**General Fire Hazards:** Sodium Erythorbate may burn but does not ignite readily. This compound has been tested by the Bureau of Mines Relative Hazard Rating and has been found to have no explosion detected at dust levels up to 200 g/ft$^3$. Prudent practice would be to minimize potential explosion hazard by controlling dusts. When involved in a fire, this material may decompose and produce irritating vapors, acrid smoke and toxic gases, including carbon monoxide and carbon dioxide. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for comprehensive guidance.

**Hazardous Combustion Products:** Carbon monoxide and carbon dioxide.

**Extinguishing Media:** Use methods for the surrounding fire, including water spray, dry chemical, carbon dioxide, or foam.

**Fire Fighting Equipment/Instructions:** Firefighters should wear full protective clothing including self-contained breathing apparatus. If possible control runoff from fire control or dilution water to prevent environmental contamination.

Section 6. Accidental Release Measures

**Containment Procedures:** Stop the flow of material, if this can be done without risk. Contain the discharged material. If sweeping of a contaminated area is necessary use a dust suppressant agent, which does not react with product (see Section 10 for incompatibility information).

**Clean-Up Procedures:** Small releases can be cleaned-up wearing gloves, goggles and suitable body protection. In case of a large spill (in which excessive dusts can be generated), clear the affected area, protect people, and respond with trained personnel. If a vacuum is used for spill clean-up, only an explosion-proof vacuum should be used, due to the possibility for dust explosion. Do not allow the spilled product to enter public drainage system or open water courses. Place all spill residues in an appropriate container and seal. Thoroughly wash the area after a spill or leak clean-up. Avoid contamination of soil, and prevent spill residue from running to groundwater or storm drains.

**Evacuation Procedures:** Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering. In case of large spills, follow all facility emergency response procedures.

**Special Procedures:** Remove soiled clothing and launder before reuse. Avoid all skin contact with the spilled material. Have emergency equipment readily available.

Section 7. Handling and Storage

**Handling Procedures:** All employees who handle this material should be trained to handle it safely. Do not breathe dust. Avoid all contact with skin and eyes. Wherever dust clouds may be generated, eliminate sparks, flames and other ignition sources. Use this product only with adequate
ventilation. Areas in which this compound is used should be wiped down periodically so that this substance is not allowed to accumulate. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Wash thoroughly after handling.

Storage Procedures: Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Storage areas should be made of fire-resistant materials. Post warning and "No Smoking" signs in storage and use areas, as appropriate. Refer to NFPA 654, Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids for additional information on storage. Containers of this material should be separated from oxygen, or other oxidizers, by a minimum distance of 20 ft., or by a barrier of non-combustible material at least 5 ft. high, having a fire-resistance rating of at least 0.5 hours. Additional information can be found the OSHA Safety and Health Information Bulletin: Combustible Dust in Industry: Preventing and Mitigating the Effects of Fire and Explosions. Use only appropriately classified electrical equipment and powered industrial trucks. Use corrosion-resistant structural materials, lighting, and ventilation systems in the storage area. Floors should be sealed to prevent absorption of this material. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Have appropriate extinguishing equipment in the storage area (i.e., sprinkler system, portable fire extinguishers).

Empty containers may contain residual particulates; therefore, empty containers should be handled with care. Never store food, feed, or drinking water in containers that held this product. Keep this material away from food, drink and animal feed. Do not store this material in open or unlabeled containers. Limit quantity of material stored.

Section 8. Exposure Controls / Personal Protection

Exposure Guidelines
General Product Information: Follow the applicable exposure limits. Use a non-sparking, grounded, explosion-proof ventilation system separate from other exhaust ventilation systems. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Component Exposure Limits: ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

The exposure limits given are for Particulates Not Otherwise Classified (PNOC).

OSHA
Total Dust: 15 mg/m³ TWA
Respirable Fraction: 5 mg/m³ TWA

DFG MAKs
Inhalable Fraction: 4 mg/m³ TWA
Respirable Fraction: 1.5 mg/m³ TWA
Engineering Controls: Use engineering methods to control hazardous conditions. This includes exhaust ventilation directly to the outside and using a corrosion-resistant ventilation system separate from other exhaust ventilation systems.

Personal Protective Equipment: The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132). Please reference applicable regulations and standards for relevant details.

Eyes/Face: Wear chemical safety goggles. If necessary, refer to U.S. OSHA 29 CFR 1910.133.

Skin: Use impervious gloves. Gloves should be tested to determine their suitability for prolonged contact with this material. If necessary, refer to U.S. OSHA 29 CFR 1910.138.

Respiratory: None required where adequate ventilation conditions exist. If airborne concentration is high, use an appropriate respirator or dust mask. If airborne concentrations are above the applicable exposure limits, use NIOSH-approved respiratory protection. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-face piece pressure/demand SCBA or a full face piece, supplied air respirator with auxiliary self-contained air supply is required under OSHA’s Respiratory Protection Standard (1910.134-1998).

General: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### Section 9. Physical and Chemical Properties

**Appearance:** White granules or powder

**Odor:** Odorless

**Physical State:** Solid

**pH:** 5 - 8 (10% solution)

**Vapor Pressure:** Zero

**Vapor Density:** Not applicable

**Boiling Point:** Not applicable

**Freezing Melting Point:** Decomposes at 154 - 164°C (309.2 - 327.2°F)

**Solubility (H2O):** 15 g/100g water

**Specific Gravity:** 1.2 (H2O = 1)

**Softening Point:** Not applicable

**Particle Size:** Not determined

**Molecular Weight:** 216.12

**Bulk Density:** Not available

**Flash Point:** Not flammable

**Method Used:** Not applicable

**Upper Flammable Limit (UEL):** Not applicable

**Lower Flammable Limit (LEL):** Not applicable

**Auto Ignition:** Not applicable

**Flammability Classification:** Not applicable

**Rate of Burning:** Not applicable
Section 10. Stability and Reactivity

**Chemical Stability:** Stable under conditions of standard temperature and pressure. Sodium Erythorbate may be sensitive to prolonged exposure to light.

**Conditions to Avoid:** Avoid high temperatures, and incompatible materials.

**Incompatibility:** Sodium Erythorbate is incompatible with strong oxidizers.

**Hazardous Decomposition:** Carbon Monoxide and carbon dioxide.

**Hazardous Polymerization:** Will not occur.

Section 11. Toxicological Information

**Acute and Chronic Toxicity**

**General Product Information:** May cause eye, skin, nose, throat, and respiratory tract irritation.

**Standard Draize Test (Skin-Rabbit) 100 mg:** Mild

**Chronic:** Long term skin overexposure to this product may lead to dermatitis (red, itchy skin).

**Component Analysis:** LD50/LC50
LD50 (Oral-Rat): > 5 gm/kg: Gastrointestinal: hypermotility, diarrhea

**Component Analysis:** TDLo/LDLo
TDLo (Oral-Mouse): 350 mL/kg/10 weeks-continuous: Liver: other changes; Kidney, Ureter, Bladder: changes in tubules (including acute renal failure, acute tubular necrosis); Blood: changes in spleen

**Carcinogenicity**

**General Product Information:** Sodium Erythorbate is not considered carcinogenic by ACGIH, IARC, NIOSH, NTP, or OSHA.

**Component Carcinogenicity:** No information available

**Epidemiology:** No information available.

**Neurotoxicity:** No information available.

**Mutagenicity:** No information available.

**Teratogenicity:** No information available.

**Other Toxicological Information:** No information available.

Section 12. Ecological Information

**Ecotoxicity**

**General Product Information:** No information available.

**Aquatic Toxicity:** No information available.

**Environmental Fate:** Product is not expected to accumulate in the food chain.
Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

**US DOT Information**
- **Shipping Name:** Not applicable.
- **Hazard Class:** Not applicable
- **UN/NA #:** Not applicable
- **Packing Group:** Not applicable
- **Required Label(s):** Not applicable
- **RQ Quantity:** Not applicable

**56th Edition International Air Transport Association (IATA):**
- **For Shipments by Air transport:** Not considered hazardous.

**International Maritime Organization (I.M.O.) Classification**
- **I.M.O. Classification:** Not considered hazardous under IMDG/ I.M.O. regulations

Section 15. Regulatory Information

**US Federal Regulations**
- **General Product Information:** No additional information.

**Component Analysis:** Sodium Erythorbate is not listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

**SARA 302 (EHS TPQ):** There are no specific Threshold Planning Quantities for Sodium Erythorbate. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

**Sara 311/312 Tier II Hazard Ratings**
- **Fire Hazard:** No
- **Reactivity Hazard:** No
- **Pressure Hazard:** No
- **Immediate Health Hazard:** Yes
- **Chronic Health Hazard:** No

**State Regulations**
- **General Product Information**
- **California Proposition 65:** Sodium Erythorbate is not on the California Proposition 65 chemical lists.
**Component Analysis - State:** The following components appear on one or more of the following state hazardous substance lists
CA: No
FL: No
MA: No
MN: No
NJ: No
PA: No

**Other Regulations**

**General Product Information:** No other information available.

**Component Analysis - Inventory**
TSCA: Yes
DSL: Yes
EINECS: Yes

**Component Analysis - WHMIS IDL:** The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

**Minimum Concentration:** No disclosure limit

**ANSI LABELING (Z129.1):** Caution! May form combustible dust concentrations in air (during processing). May cause skin and eye irritation. Avoid contact with skin, eyes, or clothing. Do not taste or swallow. Avoid breathing dusts and particulates. Use only with adequate ventilation. Keep container tightly closed. Use only with adequate ventilation. Keep away from heat or flame. Keep container closed and grounded. Prevent dust accumulations to minimize explosion hazard. Wash thoroughly after handling. Wear gloves, goggles, face shields, suitable body protection, and NIOSH-approved respiratory protection, as appropriate.

**FIRST-AID**
In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If inhaled, remove to fresh air. If ingested, do not induce vomiting. Get medical attention.
In Case Of Fire: Use water fog, dry chemical, CO₂, or "alcohol" foam.
In Case Of Spill: Absorb spill with inert material. Place residue in suitable container. Consult Material Safety Data Sheet for additional information.
Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

REVISION DATE: 10/5/2015