

I - PRODUCT IDENTIFICATION

Product: Erythorbic Acid

Chemical Family:

Formula: $C_6H_8O_6$

CAS Number: 89-65-6

Synonyms: A+ Stain Remover, Araboascorbic acid, Erycorbin, D-Erythorbic acid

COMPANY IDENTIFICATION

AllChem Performance Products

6010 NW First Place

Gainesville, FL 32607

Tel: 352-378-9696

II- COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical or Common Name:</u>	<u>CAS #:</u>	<u>Percent:</u>
Erythorbic Acid	89-65-6	>100

III – HAZARDS IDENTIFICATION**Emergency Overview**

Erythorbic acid is a white to yellow solid, and comes in crystalline powder or granular form and has a distinctive sugary odor. Dusts of this product may cause mild irritation to the eyes, skin, nose & throat. This product is not flammable; however large amounts of airborne dusts can present an air/dust explosion hazard. Use extinguishing media appropriate for surrounding fire. Thermal decomposition of this product produces acrid smoke and irritating vapors. Emergency responders should wear proper personal protective equipment for the releases to which they are responding.

Hazard Statements

CAUTION! MAY CAUSE MILD RESPIRATORY TRACT IRRITATION. MAY CAUSE MILD EYE & SKIN IRRITATION. Avoid contact with eyes and skin. Avoid breathing dusts. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation.

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 & pain.

Potential Health Effects: Skin

This product can cause slight irritation of the skin, especially after prolonged exposures. Symptoms are generally alleviated when exposure ends. Repeated skin contact may lead

to dermatitis (red, cracked skin).

Potential Health Effects: 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.

Potential Health Effects: Inhalation

Breathing dusts or particulates generated by this product can lead to mild 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.

HMIS Ratings: Health 1* Fire: 1 Reactivity: 0 Personal Protective Equipment: E = chemical goggles, impervious gloves, dust respirator.

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

IV – FIRST AID MEASURES

Eyes: In case of contact with eyes, rinse immediately with plenty of water for at least 20 minutes. Seek immediate medical attention if any adverse effect occurs.

Skin: Remove all contaminated clothing. For skin contact, wash thoroughly with soap and water for at least 20 minutes. Seek medical attention if irritation develops or persists.

Ingestion: DO NOT INDUCE VOMITING. Have victim rinse mouth thoroughly with water, if conscious. Never give anything by mouth to a victim who is unconscious or having convulsions. Contact a physician or poison control center immediately.

Inhalation: Remove source of contamination or move victim to fresh air. If breathing has stopped, apply artificial respiration. Get immediate medical attention.

Notes to Physician: Provide general supportive measures and treat symptomatically.

V – FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARD DATA

Flash Point : Not flammable

Method used: N/A

Flammable Limits: N/A

LEL: 14 g/ft³

UEL: 8 g/ft³

Auto ignition: 640°C (1184°F)

Extinguishing Media: Use methods for surrounding fire.

Special Fire-fighting Procedures: 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.

Unusual Fire and Explosion Hazards: This product is not flammable; however large amounts of airborne dusts can present an air/dust explosion hazard. Closed

containers exposed to heat may explode. When involved in a fire, this material may decompose and produce irritating vapors and acrid smoke.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide.

NFPA Ratings: Health:1 Fire:1 Reactivity:0

Scale: 0 = minimal 1 = slight 2 = moderate 3 = serious 4 = severe

VI – ACCIDENTAL RELEASE MEASURES

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.

Clean up procedures: Small releases can be cleaned-up in 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. Do not allow the spilled product to enter the public drainage system or open water courses. Place all spill residues in an appropriate container and seal. Thoroughly wash area after a spill or leak clean-up. Prevent spill rinsate from contamination of storm drains, sewers, soil or ground water.

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.

VII – HANDLING AND STORAGE

Handling Procedures: Do not breathe dust. Avoid all contact with skin and eyes. Use this product only with adequate ventilation. 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 materials. Storage areas should be made of corrosion and fire-resistant materials. Post warning and “NO SMOKING” signs in storage and use areas, as appropriate. 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. Do not cut, grind, weld or drill near this container. 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.

VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

Component exposure limits

The exposure limits given are for Particulates Not Otherwise Classified

ACGIH: 10 mg/m³ TWA (Inhalable fraction)

3 mg/m³ TWA (Respirable fraction)

OSHA: 15 mg/m³ TWA (Total Dust)

5 mg/m³ TWA (Respirable fraction)

DFG MAKs: 4 mg/m³ TWA (Inhalable fraction)

1.5 mg/m³ TWA (Respirable fraction)

Respiratory Protection: No specific guidelines are available. If airborne concentrations are above the applicable exposure limits, use NIOSH-approved respiratory protection. An approved dust and mist air-purifying respirator may be adequate.

Ventilation: Use mechanical ventilation such as dilution and local exhaust. Use a corrosion resistant ventilation system and exhaust directly to the outside. Supply ample air replacement.

Other Protective Clothing or Equipment: Wear safety glasses (or goggles). Wear impervious gloves, boots and coveralls to avoid skin contact.

Work/ Hygienic Practices: Have an eyewash fountain and safety shower available in the work area.

IX- PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: N/A

Vapor Pressure (mm Hg): N/A

Vapor Density (Air=1): N/A

Solubility in Water: 40g/100 ml water

Appearance and odor: White to yellow crystalline or granular solid, distinctive sugary odor.

Specific Gravity (H₂O=1): Unknown

Percent volatile by volume:

Melting Point: Decomposes at 174°C (345.2°F)

Evaporation Rate: N/A

pH: 1.9-2.5 (10% solution)

Molecular weight: 176.13

Chemical Formula: C₆H₈O₆

X – STABILITY AND REACTIVITY

Stability: () Unstable (X) Stable

Product is normally stable. Erythorbic acid darkens on exposure to light.

Conditions to Avoid: Avoid high temperatures, exposure to air and incompatible materials.

Incompatibility: This material is incompatible with strong oxidizers, strong acids and common metals.

Hazardous Decomposition or By-Products: Carbon dioxide, carbon monoxide
Hazardous Polymerization: () May Occur () Will Not Occur
Conditions to Avoid:

XI - TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity:

A: General Product Information

Mildly irritating to skin, eyes and inhalation. Can act as a diuretic, if ingested.

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

B. Component Analysis – LD50/LC50

Erythorbic acid: Oral-mouse LD₅₀: 8.3 g/kg

B. Component Analysis – TDL_o/LDL_o

No data available.

Carcinogenicity

A. General Product Information

Erythorbic acid is not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

B. Component Carcinogenicity

No information available

Epidemiology: No information available

Neurotoxicity: No information available

Mutagenicity: Microsomal Mutagenicity Assay (Salmonella typhimurium) 50mg/plate;

DNA damage (Unspecified effects-lyms) 5mmol/L

Teratogenicity: No information available

Other toxicological information: No information available

XII – ECOLOGICAL INFORMATION

Aquatic Toxicity: This compound may be harmful to aquatic life in high concentrations.

Log Kow = -1.64

Ecotoxicity: No information available

Environmental Fate: No potential for food chain concentration.

ENVIRONMENTAL HAZARDS (PR Notice 93-10)

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water board or Regional Office of the EPA.

XIII – DISPOSAL CONSIDERATIONS

As shipped, this product is not considered a hazardous waste. No EPA Waste Numbers are applicable for this product's components.

Waste Disposal Method: All wastes must be handled in accordance with local, state and federal regulations or with regulations of Canada and its Provinces. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

XIV - TRANSPORTATION DATA

U.S. Department of Transportation - 49 CFR

Not regulated

Proper Shipping Name:

Hazard Class/Division Number:

ID Number:

Packing Group:

Label Required:

Placard Required:

Marine Pollutant:

Emergency Telephone Number: Chemtrec 800-424-9300

International Maritime Organization – IMDG

Not regulated

Proper Shipping Name:

Hazard Class/Division Number:

ID Number:

Packing Group:

Label Required:

Placard Required:

Marine Pollutant:

Emergency Telephone Number: Chemtrec 202-483-7616 [call collect]

XV - REGULATORY INFORMATION

US Federal regulations:

A. General Product Information – Erythorbic acid is Generally Accepted As Safe (GRAS) when used as a food additive for humans or animals, when used in accordance with good manufacturing or feeding practice.

B. Component Analysis: This product has no requirements under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4)

SARA 302: There are no specific Threshold Planning Quantities for Erythorbic acid. The default Federal MSDS submission (EHS TPQ) and inventory requirement filing

threshold of 10,000 lbs (4,450 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: Yes
California Proposition 65: Not on the list
Not on CA, FL, MA, MN, NJ, PA state hazardous substances list
Canadian WHMIS Classification: N/A
Not listed in the WHMIS IDL
Inventory Analysis:
TSCA: Yes
DSL: Yes
EINECS: Yes
Minimum Concentration: No disclosure limit

ANSI LABELING(Z129.1): CAUTION! MAY CAUSE SKIN AND EYE IRRITATION.
IRRITATING IF INGESTED OR INHALED. Avoid contact with skin, eyes or
clothing. Do not taste or swallow. Avoid breathing dusts and particulates. Use
only with adequate ventilation. Wash thoroughly after handling. Wear gloves,
goggles, faceshields, 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.

XVI - ADDITIONAL INFORMATION

**ALWAYS COMPLY WITH ALL APPLICABLE INTERNATIONAL, FEDERAL,
STATE AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION,
STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.**

Due to the changing nature of regulatory requirements, the REGULATORY
INFORMATION listed in Section XV of this document should NOT be considered all-
inclusive or authoritative. International, Federal, State and Local regulations should be
consulted to determine compliance with all required reporting requirements.

The information in this MSDS was obtained from sources, which we believe are reliable.
**HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY,
EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.** The conditions or
methods of handling, storage, use, and disposal of the product are beyond our control and
may be beyond our knowledge. **FOR THIS AND OTHER REASONS, WE DO NOT
ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR
LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY
CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF
THE PRODUCT.** This MSDS was prepared and is to be used only for this product. If

the product is used as a component in another product, this MSDS information may not be applicable.

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