

Section 1: Product & Company Information

Product Identifier: Erythorbic Acid

Other Means of Identification

Product Number: 110003

Recommended Use and Restrictions on Use

Recommended Use: Laboratory chemicals
Restrictions on Use: Food, drug, pesticide or biocidal product use.

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.
Address: 4320 Greenway Drive
Knoxville, TN 37918
USA

Information Telephone Number: 1-865-524-4239
Fax Number: 1-865-524-3375
Website: www.corecheminc.com
Contact Person: Regulatory Manager
E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)

Section 2: Hazards Identification

GHS Hazard Classification(s)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Section 3: Composition/Information on Ingredients

Substance

Chemical Identity ²	Common Name/Synonym(s)	CAS # ³	Weight %	Impurity or Stabilizing Additive
Erythorbic Acid	-Araboascrobic Acid; D- Araboascrobic Acid, Erycorbin, Erythorbic Acid, D- Erythorbic Acid, D-Erythro-Hexonic Acid 3 -Keto-Gamma-Lactone, D- Erythro-Hex-2-Enoic Acid Gamma-Lactone; D-Erythro-Hex-3-Enoic acid; Gamma-Lactone; Mercate 5; Neo-Cebicure; Saccharosonic Acid; C6H8O6; OHS76829	89-65-6	98-100%	No

- Information regarding the composition and the percentage ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
- Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
- "—" Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposures. In the United States, the national poison control center phone number is 1-800-222-1222. If the person is not breathing, give artificial respiration. If breathing is difficult, give oxygen if available. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention.

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.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

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.

Most important symptoms/effects, acute and delayed

Symptoms

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. Concentrated solutions may be corrosive to the eyes and cause corneal ulcerations.

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). Concentrated solutions may be severely irritating or cause burns, depending on concentration and duration of exposure.

Ingestion: Ingestion of this product (especially in large volumes) can irritate or damage the tissues of the mouth, esophagus, and other tissues of the digestive system. Symptoms of exposure can include vomiting, diarrhea, and nausea. . If large quantities are ingested, death may result.

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.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Treat systematically and supportively.

Section 5: Fire-Fighting Measures

General Fire Hazards

No unusual fire or explosion hazards noted.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media

No data available.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Hazardous Combustion Products- Carbon monoxide (CO). Carbon dioxide (CO₂)

Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear.)

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering. Keep materials that burn away from spilled material. In case of large spills, follow all facility emergency response procedures. Remove soiled clothing and laundry before reuse. Avoid all skin contact with the spilled material. Avoid inhalation of dusts. Wear adequate personal protective equipment. Have emergency equipment readily available.

Methods and Materials for Containment and Clean-Up

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). Contain soil spill or liquid spills and neutralize with lime (calcium oxide) or sodium carbonate if necessary. Place into suitable, covered, labeled containers for later disposal.

Notification Procedures

Notify authorities if any exposure to the general public or environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained.

Environmental Precautions

Avoid discharge into drains, water courses or onto the ground.

Section 7: Handling and Storage

Precautions for Safe Handling

Do not breathe dust. Avoid all contact with skin and eyes. Use this product only with adequate ventilation. Wash thoroughly after handling. Avoid accumulation of dusts, which can lead to a serious hazard of dust explosion. 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.

Conditions for Safe Storage, including any Incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Strong oxidizing agents. Strong bases. Metals. copper. Finely powdered metals.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

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

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

For laboratory operations, use good techniques and limit open handling. Control exposures to below the occupational exposure level (if available). Select and use containment devices and personal protective equipment based on a risk assessment of exposure potential. Cover all containers for solutions and slurries while being transferred.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Eye/Face Protection

Wear safety glasses with side shields, chemical splash goggles, or full-face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory Protection

Respirators are generally not required for laboratory operations. Choose respiratory protection appropriate to the task and the level of existing engineering controls.

Hygiene Measures

Have an eyewash fountain and safety shower available in the work area. Use good hygiene practices when handling this material, including changing and laundering work clothing after use. Wash hands thoroughly after handling material. Do not eat, drink, or smoke in work areas.

Section 9: Physical and Chemical Properties

Appearance:

Physical State: Solid
Color: White to yellow crystals or granules

Odor:

Sugary

Odor Threshold:

No data available.

pH:

1.9 – 2.5 (10% solution)

Melting Point/Freezing Point:

167 - 172 °C / 332.6 - 341.6 °F

Initial Boiling Point and Boiling

No data available.

Range:

Flash Point:

Not applicable.

Evaporation Rate (butyl acetate=1):

No data available.

Flammability (solid, gas):

No data available.

Upper/Lower Limit on Flammability or Explosive Limits

Flammability Limit – Upper: No data available

Flammability Limit – Lower: No data available

Explosive Limit – Upper: Not applicable.

Explosive Limit – Lower:	Not applicable.
Vapor Pressure:	< 0.0000001 kPa (77 °F (25 °C))
Vapor Density (air =1):	Not applicable.
Relative Density (water=1):	1.26
Solubility(ies):	
Solubility in water:	Soluble
Solubility (other):	Acetone: Moderately soluble. Alcohol: Soluble. Glycerol: Slightly soluble. Pyridine: Soluble
Partition coefficient (n-octanol/water):	-1.64
Auto-Ignition Temperature:	1184 °F (640 °C)
Decomposition Temperature:	164 °C
Viscosity:	No data available.
Other Information:	
Molecular Weight:	176.13
Formula:	C6H8O6

Section 10: Stability and Reactivity

Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability

Material is stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Incompatible products. Avoid high temperatures.

Incompatible Materials

Strong oxidizing agents, Strong acids, Metals, copper, finely powdered metals.

Hazardous Decomposition Products

Carbon Dioxide, Carbon Monoxide.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Knowledge about health hazards is incomplete.

Skin Contact: Knowledge about health hazard is incomplete.

Eye Contact: Health injuries are not known or expected under normal use.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

LD50 = 8300 mg/kg (Rat)

Dermal

No data Available

Inhalation

No Data Available

Repeated Dose Toxicity

No Data Available

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met.

Serious Eye Damage/Eye Irritation

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

US. National Toxicology Program (NTP) Report on Carcinogens

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.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

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.

Germ Cell Mutagenicity

In Vitro

Microsomal Mutagenicity Assay (Salmonella typhimurium) 50 mg/plate; DNA Damage (Unspecified effects-lyms) 5 mmol/L

In Vivo

Knowledge about mutagenicity is incomplete.

Reproductive Toxicity

None known.

Specific Target Organ Toxicity – Single Exposure

None known.

Specific Target Organ Toxicity – Repeated Exposure

None known.

Aspiration Hazard

Not classified.

Other Effects

None known.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

Soluble in water Persistence is unlikely based on information available.

BOD/COD Ratio

No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

Will likely be mobile in the environment due to its water solubility.

Other Adverse Effects

This compound may be harmful to aquatic life in high concentrations. Log Kow = -1.69

Section 13: Disposal Considerations

Disposal Instructions

Chemical waste generators must determine whether a discarded chemical is classified as hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated Packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Section 14: Transportation Information

US Department of Transportation (DOT)

This material is not regulated as a hazardous material for transport by the U.S. Department of Transportation in accordance with 49 CFR 172.101.

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.
Erythorbic Acid.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

No chemical(s) in this material are subject to the reporting requirements of CERCLA.

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: No
Sudden Release of Pressure: No
Reactive: No
Acute (Immediate) Health Hazard: Yes
Chronic (Delayed) Health Hazard: No

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

This material does not contain any chemical(s) with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

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

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 1

Chronic Health Hazard: /

Flammability: 1

Physical Hazard: n/a

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 1

Fire Hazard: 1

Reactivity Hazard: 0

Special: N/A

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate	ACGIH - American Conference of Industrial Hygienists
BCF - Bioconcentration Factor	AIHA – American Industrial Hygiene Association
EC50 - Effective concentration, 50%	BEI - Biological Exposure Indices
IDHL – Immediately Dangerous to Life and Health	CAS – Chemical Abstracts Service
Kg – Kilogram	DOT – US Department of Transportation
l – Liter	EPA – US Environmental Protection Agency
lb – Pound	GHS - Globally Harmonized System of Classification and Labelling of Chemicals
LC50 - Lethal Concentration, 50%	IARC - International Agency for Research on Cancer
LD50 - Lethal Dose, 50%	IATA - International Air Transport Association
mg - milligram	IBC - Intermediate Bulk Container
ml – milliliter	IMDG - International Maritime Dangerous Goods
N/A – Not Applicable	NIOSH – National Institute for Occupational Safety and Health
N/D – Not Determined	NTP – National Toxicology Program
PEL – Permissible Exposure Limit	OSHA – US Occupational Health and Safety Administration
REL – Recommended Exposure Limit	SARA – US EPA Superfund Amendments and Reauthorization Act
STEL – Short-term Exposure Limit	TSCA – US EPA Toxic Substances Control Act
TWA - Time weighted average	UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

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