SAFETY DATA SHEET
Erythorbic Acid

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identification
Product Name: Erythorbic Acid
Synonyms: Reducing Agent

Company Identification
Deep South Chemical, Inc.
229 Millstone Road
Broussard, LA 70518 USA
(337)837-9931
(800) 424-9300 (chemtrec) (For emergencies)

2. HAZARDS IDENTIFICATION

GHS Hazard Symbols:
Irritant

GHS Hazard Statements:
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.

GHS Precautionary Statements:
P102 - Keep out of reach of children.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P270 - Do not eat, drink or smoke when using this product.
P281 - Use personal protective equipment as required.
P301/310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301/330/331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302/352 - IF ON SKIN: Wash with plenty of soap and water.
P304/340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P332/313 - If skin irritation occurs: Get medical advice/attention.
P337/313 - If eye irritation persists: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
EMERGENCY OVERVIEW:
WARNING! Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

HMIS Rating:
- Health: 2
- Flammability: 0
- Reactivity: 0
- Personal Protection Index: B

EYE:
Can cause severe eye irritation.

SKIN:
Causes skin irritation.

INHALATION:
May cause irritation of the upper respiratory passages.

INGESTION:
May be harmful if swallowed.

CHRONIC EFFECTS:
None known.

REPRODUCTIVE HAZARDS:
None known.

CARCINOGENICITY INFORMATION:
No known cancer hazards. Not listed by NTP, IARC, or OSHA as a carcinogen.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT LISTING:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Amount</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERYTHORBIC ACID</td>
<td>Confidential</td>
<td>89-65-6</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:
After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops or persists.

SKIN CONTACT FIRST AID:
Wash affected area immediately with large amounts of soap and water. Get medical attention if irritation develops or persists.

INHALATION FIRST AID:
Remove to fresh air, treat symptomatically. Get medical attention if cough or other symptoms develop.

INGESTION FIRST AID:
If swallowed, do NOT induce vomiting. Give milk or water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

5. FIREFIGHTING MEASURES

EXTINGUISHING MEDIA:
Use any suitable for adjacent material.

**FIRE & EXPLOSION HAZARDS:**
Can burn in fire, releasing toxic vapors.

**FIRE FIGHTING INSTRUCTIONS:**
As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.

**COMBUSTION PRODUCTS:**
Carbon oxides.

**FLAMMABLE PROPERTIES**
COC Flash Point: N/A
Autoignition Temperature: N/A

**FLAMMABLE LIMITS IN AIR**
LEL: N/A
UEL: N/A

**FLAMMABLE PROPERTIES:**
Not Combustible.

### 6. ACCIDENTAL RELEASE MEASURES

**SAFEGUARDS (PERSONNEL):**
If excessive dust is created, wear dust mask or respirator to keep exposure below the Permissible Exposure Level for particulate matter. Wear appropriate personal protective equipment.

**INITIAL CONTAINMENT:**
Take up and place in secure closed containers. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements. Pick up and arrange disposal without creating dust.

**LARGE SPILLS PROCEDURE:**
Avoid dust generation. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

**SMALL SPILLS PROCEDURE:**
Do not dry sweep. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

### 7. HANDLING AND STORAGE

**HANDLING (PERSONNEL):**
Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Avoid breathing (dust, vapor, mist, gas).

**HANDLING (PHYSICAL ASPECTS):**
Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Secure container after each use.

**STORAGE PRECAUTIONS:**
Keep dry.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE GUIDELINES:**
No Information Available.
ENGINEERING CONTROLS:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Good general ventilation should be sufficient to control airborne levels. Ensure adequate ventilation, especially in confined areas.

EYE / FACE PROTECTION REQUIREMENTS:
A respiratory protection program that meets OSHA's 29 CFR 1910-134 and ANSI Z88-2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION REQUIREMENTS:
Apron is recommended. Wear protective gloves to minimize skin contamination. Wash hands thoroughly after handling.

RESPIRATORY PROTECTION REQUIREMENTS:
If airborne concentrations exceed the OSHA TWA, a NIOSH approved dust mask is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Solid
COLOR: White
ODOR: None
BOILING POINT: ND C
VAPOR PRESSURE: ND psia
VAPOR DENSITY: ND (Air = 1)
SOLUBILITY IN WATER: 40 g/100 ml
SPECIFIC GRAVITY: 1.65 (Water = 1)
BULK DENSITY: ND
MELTING/FREEZING POINT: ND C
PH: 5-6
% VOLATILES: ND %

10. STABILITY AND REACTIVITY

STABILITY:
Stable.

POLYMERIZATION:
Hazardous polymerization will not occur.

INCOMPATIBILITY WITH OTHER MATERIALS:
Strong oxidizing agents. Strong Bases. Chemically active metals, Aluminum, Zinc, Magnesium, Copper.

DECOMPOSITION:
Carbon Oxides.

11. TOXICOLOGICAL INFORMATION

Erythorbic Acid
Test Code: LD50 Oral
Species: Rat
Results: 18,000 mg/kg

12. ECOLOGICAL INFORMATION

No information available.
13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>PRODUCT LABEL:</th>
<th>Erythorbic Acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.O.T. SHIPPING NAME:</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>TECHNICAL SHIPPING NAME:</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>D.O.T. HAZARD CLASS:</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>UN NUMBER:</td>
<td>N/A</td>
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<tr>
<td>PRODUCT RQ (LBS):</td>
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<tr>
<td>D.O.T. LABEL:</td>
<td>N/A</td>
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<tr>
<td>D.O.T. PLACARD:</td>
<td>N/A</td>
</tr>
<tr>
<td>BULK CLASS:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

MISCELLANEOUS:
Not a Marine Pollutant.

15. REGULATORY INFORMATION

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains materials that are acute hazards.

MISCELLANEOUS INFORMATION:
This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA). This material or all of its components are listed on the Canadian Domestic Substances List (DSL). This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS).

16. OTHER INFORMATION

PREPARED BY: Glenn Ray
APPROVED BY: Glenn Ray
TITLE: Chief Operating Officer
APPROVAL DATE: April 23, 2015

ADDITIONAL INFORMATION:
The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process.

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This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Deep South Chemical, Inc. The data on this sheet are related only to the specific material designated herein. Deep South Chemical, Inc. assumes no legal responsibility for use or reliance upon these data.
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END OF MSDS
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