

AA2G**1. Identification of the Substance and the Company****Identification of the substance**

Product Name : AA2G
Synonym(s) : Ascorbic acid 2-Glucoside
Ascorbyl Glucoside
Stabilized ascorbic acid

Company identification**Supplier**

Company Name : Charkit Chemical Company, LLC.
Address : 32 Haviland St., Unit 1, Norwalk, CT 06854

Contact in Emergency

Company Name : For chemical emergencies call
CHEMTREC
USA: 800-424-9300
International: +1 703-527-3887

General Use : Cosmetic ingredient

2. Hazards Identification

GHS Classification : NOT HAZARDOUS

Symbols : No symbol

Signal Words : No signal word

GHS Precautionary Statements

Prevention : No precautionary phrases.
Response : No precautionary phrases.
Storage : No precautionary phrases.
Disposal : No precautionary phrases.

Other Hazards which do not result in classification

: Not classified as flammable but will burn.

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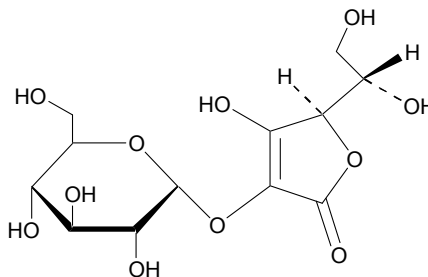
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Emergency Overview : The product is a non-flammable white crystalline powder. Highly safe material enzymatically produced from ascorbic acid and starch, easily decomposed *in vivo* to become ascorbic acid and glucose.

3. Composition / Information on Ingredients

Substance/Preparation/Article : Substance
Purity : Not less than 98.0%
Chemical Identity : 2-O- α -D-Glucopyranosyl-L-ascorbic acid
Chemical Formula : C₁₂H₁₈O₁₁
Structural Formula :



CAS No. : 129499-78-1
INCI NAME : Ascorbyl Glucoside
REACH Registration No. : 01-0000017238-68-0002
ELINCS No. : 425-980-0

4. First Aid Measures

General Information : Not expected to be a health hazard when used under normal conditions.
Inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing.
Skin Contact : Immediately take off all contaminated clothing. Wash areas thoroughly with water.
Eye Contact : Immediately flush eyes with a sufficient amount of water. Remove contact lenses if easy to do so. Continue rinsing.
Ingestion : If material is swallowed in large amounts, get medical attention.

Consult a doctor, if symptoms develop or persist after taking the measures above.

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5. Fire Fighting Measures

Clear fire area of all non-emergency personnel.

Extinguish Media : Dry chemical, foam, carbon dioxide, water fog

Unsuitable Extinguishing Media : No information

Special Fire Fighting : Position upwind. Keep unnecessary personnel away. Move containers out of hazard area if safe to do so. Keep the containers cool by spraying water if exposed to heat or fire. Cool containers with flooding quantities of water until well after until well after the fire is out.

Protection for Fire Fighter : Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

Avoid contact with spilled or released material. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

Personal Precautions : Use personal protection recommended in Chapter 8. Avoid breathing mist and contact with skin and eyes.

Environment Procedures : Prevent entry into ditches, sewers and waterways.

Containment and Cleanup : Sweep up the spill and dispose of in general trash. Wash residual with water. Spill area can be washed with water for approved disposal. Follow all regulatory requirements for non-hazardous waste disposal.

7. Handling and Storage

Handling : Use in a well ventilated place. If necessary, use personal protection recommended in Chapter 8. Wash thoroughly after handling. When handling, do not eat, drink or smoke. Coloration and decomposition may occur by moisture absorption.

Storage : Keep container tightly closed. Store in a cool, dark and dry place in order to maintain the quality. Keep securely closed when not in use. Keep away from food, drink and animal feeding stuffs.

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8. Exposure Controls / Personal Protection

Exposure Limit Value	: Not set because of the high safety of AA2G
Exposure Controls	: No specific controls are needed. If necessary, the following personal protective equipments and materials are applied.
Personal Protective Equipments and Materials (if necessary)	
Respiratory Protection	: If ventilation is not sufficient to effectively remove and prevent buildup of dusts, appropriate respiratory protection should be provided.
Hand Protection	: Wear impervious gloves for prolonged contact.
Eye/Face Protection	: Wear appropriate eye protection.
Skin Protection	: Wear impervious apron and/or boots for skin protection in case scattering.

9. Physical & Chemical Properties

Appearance	: A powder or a crystalline powder
Color	: White to slight yellowish
Odor	: Odorless
pH	: 2.3 – 2.4 (1% water solution)
Melting point	: 152 – 162°C
Boiling point	: More than 190°C
Flammability	: Not highly flammable
Relative self-ignition	: Not auto-flammable
Explosive properties	: Not considered an explosive
Vapor pressure	: 1.1×10^{-10} Pa at 25°C
Vapor density	: No data available
Relative density	: $D_4^{20} = 1.586$
Oxidizing properties	: Incapable of causing fire or enhancing the risk of fire in contact with a combustible material.
Solubility	: 71.4 g/100 mL water (19°C)
Log P_{ow} (n-octanol/water)	: < -2

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10. Stability and Reactivity

Chemical Stability	: Stable under ordinary storage conditions.
Possibility of Hazardous Reactions	: Not likely to occur.
Conditions to Avoid	: Avoid accumulation of airborne dusts. Avoid hot and humid storage.
Materials to Avoid	: Avoid contacting strong oxidizing agents, which may react with the product.
Hazardous Decomposition Products	: In case of fire, the product emits carbon monoxide, carbon dioxide and/or low molecule weight hydrocarbons.

11. Toxicological Information

Acute Oral Toxicity	: LD ₅₀ > 2,000 mg/kg in male or female rats.
Acute Dermal Toxicity	: LD ₅₀ > 2,000 mg/kg in male or female rats.
Subacute Oral Toxicity	: NOAEL of 1,000 mg/kg after 28 days in feed of male and female rats.
Skin Corrosion/Irritation	: No dermal irritation to intact rabbit skin following a single semi-occlusive application.
Serious Eye Damage/Irritation	: No irritation in rabbit eyes given a volume of 0.1 g. Reddening and swelling of the conjunctivae were noted in all animals, as was watery discharge, but all findings were reversible within 7 days.
Respiratory or skin sensitization	: Non-sensitizer at a concentration of 75%.
Germ Cell Mutagenicity	: No data available [No mutagenicity (standardized AMES assays and mouse micronucleus and V79 cells chromosome aberration assays)]
Carcinogenicity	: No data available
Reproductive Toxicity	: No data available
Specific Target Organ Toxicity – Single Exposure	: No data available
Specific Target Organ Toxicity – Repeated Exposure	: No data available
Aspiration Hazard	: No data available

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12. Ecological Information

Toxicity

- Fish Acute Toxicity : The 96-hour NOEC (highest concentration tested without toxic effects after the exposure period of 96 hours), and the 96-hour LC₀ (lethal concentration 0 tested after the exposure period of 96 hours) were determined to be at least 100 mg/L.
- Daphnia Acute Immobilization : The 48-hour NOEC (highest concentration tested without toxic effects after the exposure period of 48 hours), and the 48-hour EC₀ (effect concentration 0, tested after the exposure period of 48 hours) were determined to be at least 200 mg/L.
- Algal Growth Inhibition : No inhibitory effect on algae growth up to the concentration of nominal 100 mg/L during the exposure period of 72 hours.

Persistence & Degradability

- Biodegradation : Ready biodegradable
- Respiratory inhibition : EC₂₀ > 1,000 mg/L, EC₅₀ > 1,000 mg/L (activated sludge, 3 h, < 15%)
- Hydrolysis : The results of pH 4.0, pH 7.0 and pH 9.0 showed no significant degradation at 50°C. The estimated half-life time is higher than one year under representative environmental conditions.

Bioaccumulative Potential : No data available

Mobility in Soil : The *n*-octanol/water partition coefficient is in Chapter 9.

Other Adverse Effects : No data available

13. Disposal Considerations

Comply with each local regulation.

Follow all regulatory requirements for non-hazardous waste disposal when dump this material into sewers, on the ground or into any body of water.

14. Transport Information

International transportation regulations and DOT

- Sea: : Not applicable
- Air: : Not applicable

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United Nations Number : None

The product to be kept in sealed container. Keep away from moisture, high temperatures, and direct sunlight. Container should be protected from breakage. Additional care should be taken to comply with the conditions listed under Chapter 7.

15. Regulatory Information

The product is not subject to classification according to the sources of literature known to us.

Please refer to national measures that may be relevant.

16. Other Information

This information is believed to be accurate and is intended for general guidance. It should not be construed as a guarantee of its suitability for a particular application. Charkit Chemical Company, LLC. offers no warranties either expressed or implied, nor is freedom from any patent owned by Charkit Chemical Company, LLC. or others implied; neither is liability accepted for errors or omissions in the information. Typical properties of products are given for guidance only and do not necessarily represent manufacturing specifications. 801272

Revision Date: July 30, 2012