GREEN VALLEY LABORATORY

Safety Data Sheet

Safety data sheet according to 1907/2006/EC, Article 31

SECTION 1 - Identification

1.1 Product identifier

Product name	Ethyl-3-o-Ascorbate
Chemical name	3-O- Ethyl Ascorbic Acid
CAS number	86404-04-8

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU21 Consumer uses: Private households/general public/ consumers
SU22 Professional uses

Uses advised against	Not determined
Product category	Not determined
Process category	Not determined

1.3 Details of the supplier of the Safety Data Sheet

Supplier Name	Green Valley Laboratory
Address	435 Hartford Pike, Killingly, CT 06241, USA
Contact	Help@dauphineorganics.com
Phone	n/a

1.4 Emergency telephone number

Emergency Phone No.	CHEMTREC Emergency Call Center +1 800-424-9300 (US & Canada) - +1 703-527-3887 (Europe)

SECTION 2 - Hazard Identification

2.1 Classification of the substance or mixture

GHS classification in accordance with 2012 OSHA (29 CFR 1910.1200)

Hazard Pictogram	
Eye Irrit. 2	H319 Causes serious eye irritation.

Classify as combustive dust.

2.2 Label elements

GHS Label according to OSHA Hazard Communication Standard (29 CFR 1910.2000). The substance is classified and labelled according to the GHS regulation.

Hazard Pictogram	
Signal word	Warning

Hazard statements

H319 Causes serious eye irritation.
May form combustible dust concentrations in air.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash thoroughly after handling.
P302+P352 IF ON SKIN: Wash with plenty of water
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

It may form combustible dust concentrations in air.

Results of PBT and vPvB assessment	Not applicable

SECTION 3 - Composition / Information on Ingredients

3.1 Chemical characterization	Substances

3.2 Composition/information on ingredients

Chemical Name	CAS No.	EC No.
3-O- Ethyl Ascorbic Acid	86404-04-8	617-849-3

SECTION 4 - First Aid Measures

4.1 Description of first aid measures

General information	Remove contaminated clothing. Seek medical treatment.
After inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical treatment.

After skin contact

Immediately wash with soap and rinse thoroughly.
Cover the irritated skin with an emollient.
If skin irritation continues, consult a doctor.

After eye contact

Check and remove any contact lenses.
Immediately flush eyes with copious amounts of water for at least 15 minutes.
Cold water must be used. Seek medical treatment.

After swallowing

Do not induce vomiting; call for medical help immediately.
Do not give anything by mouth to an unconscious person.
Loosen tight clothing such as a collar, tie, belt or waistband.
If symptoms persist, consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	No further relevant information available

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians	No further relevant information available

SECTION 5 - Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Extinguishing powder
Do not use water.
Fight larger fires with water spray or alcohol resistant foam.

Unsuitable extinguishing media	Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: Carbon monoxide (CO) and Carbon dioxide

5.3 Advice for firefighters

Wear protective clothing and glasses.
Wear self-contained breathing apparatus with facepiece.

SECTION 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.
Make sure only trained personnel are allowed to carry out the cleaning work.

6.2 Environmental precautions

Do not allow product to reach sewage system or any water course.
In case of seepage into the ground inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Pick up mechanically using appropriate tools.
Dispose of the material collected according to regulations.
Use warm water to clean the affected area carefully.

6.4 Reference to other sections

No dangerous substances are released.
See Section 7 for information on safe handing.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7 - Handling and Storage

7.1 Precaution for safe handing

Advice on safe handling

Keep receptacles tightly sealed.
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Protect from contacting with light, heat and moisture.
Store in tightly closed container at 25°C. Keep the pack sealed until it is to be used. It is best to use the entire contents of the pack after opening. If the contents are only partly used, reseal carefully and store in a dry place.

Incompatible materials	None known based on information supplied
Storage class (VbF)	No

7.3 Specific end use(s)	No further relevant information available

SECTION 8 - Exposure Controls / Personal Protection

8.1 Control parameters

Exposure limits	The product does not contain relevant quantities of materials with critical values that have to be monitored at the workplace.
DNEL	Not determined
PNEC	Not determined
Additional information	The valid lists during this review were used as a basis.

8.2 Exposure controls

Personal protective equipment

Respiration protection	Not necessary if room is well-ventilated

Hands protection

Protective gloves
The glove material has to be impermeable and resistant to the product/the substance/the preparation.
For prolonged or repeated contact use protective gloves.
Chemical resistant gloves (EN374)

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
For the permanent contact gloves made of the following materials are suitable:
Natural rubber, NR
PVC gloves
Neoprene gloves
Nitrile rubber, NBR
Fluorocarbon rubber (Viton)
PVA gloves
Butyl rubber, BR

Eye protection	Tightly sealed goggles
General protective measure	Avoid contact with the eyes and skin
General hygiene measure	The usual precautionary measures are to be adhered to when handing chemicals.
Environmental exposure controls	No further relevant information available

SECTION 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State	Powder
Appearance	Crystalline powder
Color	White
Odor	Characteristic
Oder threshold	Not determined
pH value (3% aq.sol.)	3.5-5.0
Melting point/Melting range	112-116 °C (OECD 102 capillary method)
Boiling point/Boiling range	214 °C (OECD 103, Siwoloboff)
Flash point	>93°C

Flammability (solid, gaseous)

Not flammable solid (burning time 200 mm>240s)
None

Ignition temperature	>400°C
Decomposition temperature	Not determined

Self-igniting	Product is not self-igniting.
Danger of explosion	Product does not present an explosion hazard.
Explosion limit - Lower	Not determined
Explosion limit - Upper	Not determined
Oxidizing properties	Not determined
Explosive properties	Not determined
Vapor pressure at 25 °C	3.1*10-7 Pa (Grain method, EPISUITE)
Vapor density at 20 °C	Not determined
Relative density	1.41 g/cm³ (OECD 109, pycnometer)
Evaporation rate	Not determined
Solubility (water 20 °C)	778 g/l (Flask method)
Partition coefficient (n-octanol/water at 25 °C)	-0.71 log POW (Flask shake method)
Kinematic viscosity	Not applicable
Dynamic viscosity	Not determined

9.2 Other information

Surface tension	69.6 mN/m at 20 °C, 1 g/l
Dissociation constant	Not determined
Granulometry	The mean value size of >50% of the particles is 95.91 μm.
Specific gravity (20 °C)	Not determined

SECTION 10 - Stability and Reactivity

10.1 Reactivity	No further relevant information available
10.2 Chemical stability	The product is stable under ordinary condition.
Thermal decomposition/conditions to be avoided	No decomposition if used according to specifications
10.3 Possibility of hazardous reactions	No dangerous reactions known
10.4 Conditions to avoid	Heat, fire, moisture and incompatible substances
10.5 Incompatible material	No further relevant information available
10.6 Hazardous decomposition products	No dangerous decomposition products known

SECTION 11 - Toxicological Information

11.1 Information on toxicological effects

Acute toxicity - LD/LC50 values relevant for classification

Substance 86404-04-8 3-O- Ethyl Ascorbic Acid	Effect dose/concentration	Value	Species
Acute oral toxicity	LD50	5900 mg/kg bw (QSAR calculation, Consensus method)	rat

Primary Irritant effect

Skin corrosion/irritation	In vitro skin irritation, OECD Guideline 439 (Human patch test, dilution at 2%)

Serious eye damage/irritation

Causes serious eye irritation.
(in-vitro HETCAM test, dilution at 3%, moderately irritant)

Respiratory tract	Not determined
Respiratory/skin sensitization	Sensitisation determined by read-across and QSAR calculations

Additional toxicological information

Toxicokinetics, metabolism and distribution	Not determined
Repeated dose toxicity	Not determined

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

Germ Cell mutagenicity

Not Genotoxic
Negative results in test OECD 471, Bacterial Reverse Mutation Test (Ames test)

Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on physical form, product is not expected to pose an aspiration hazard.

SECTION 12 - Ecological Information

12.1 Toxicity - Aquatic toxicity

Substance 86404-04-8 3-O- Ethyl Ascorbic Acid	Effect dose/concentration	Value	Species	Test
Acute toxicity	EC50 (72hr)	>100 mg/l	Algae	OECD 201, growth rate
Other	EC50 (48 hr)	>100 mg/l	Daphnia	OECD 202 Daphnia sp acute immobilisation test

12.2 Persistence and degradability

Inherently biodegradable
Degrades 35%, 28 days (30% 10-days window) in the manometric respirometry test (OECD 301F)

12.3 Bioaccumulative potential

Due to the distribution coefficient n-octanol/water a worth-mentioning accumulation in organisms is not expected.

12.4 Mobility in soil

Miscible in water, it is expected to be mobile within the environment.
Adsorption to solid soil is not expected.

12.5 Results of PBT and vPvB assessment	Not applicable
12.6 Other adverse effects	No further relevant information available

SECTION 13 - Disposal Considerations

13.1 Waste treatment methods

Recommendation	Smaller quantities can be disposed of with household waste.

13.2 Uncleaning packaging

Recommendation	Disposal must be made according to official regulations.

SECTION 14 - Transport Information

14.1 UN-Number

ADR/RID	Not applicable
ADN	Not applicable
IMDG	Not applicable
IATA	Not applicable

14.2 UN proper shipping name

ADR/RID	Not applicable

ADN	Not applicable
IMDG	Not applicable
IATA	Not applicable

14.3 Transport hazard class(es)

ADR/RID	Not applicable
ADN	Not applicable
IMDG	Not applicable
IATA	Not applicable

14.4 Packing group

ADR/RID	Not applicable
ADN	Not applicable
IMDG	Not applicable
IATA	Not applicable

14.5 Environmental hazard

Marine pollutant	No

14.6 Special precautions for user

Special precaution for user	Not applicable

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 ICAO/IATA DGR

Not regulated as dangerous good

SECTION 15 - Regulatory Information

15.1 Safe, health and environmental regulations/legislation specific for the substance or mixture

Inventory - United States - Toxic Substances Control Act (TSCA)	Substance is not listed.
Canada Domestic Substances List (DSL)	Substance is not listed.
Canada Non-Domestic Substances List (NDSL)	Substance is not listed.
European Inventory of Existing Chemical Substances (EINECS)	Substance is not listed.
Japan Existing and New Chemical Substances (ENCS)	Substance is not listed.
China Inventory of Existing Chemical Substance (IECSC)	Substance is listed.
Korean Existing and Evaluated Chemical Substances (KECL)	Substance is not listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Substance is not listed.
Australian Inventory of Chemical Substances	Substance is listed.

National regulations

Other regulations, limitations and prohibitive regulations	Not determined
Substances of very high concern (SVHC) according to REACH, Article 59(10)	Not determined

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16 - Other Information

Abbreviations and acronyms

NOAEL: Non Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
NOEC: No Observed Effect Concentration
GHS: Globally Harmonized System of Classification and Labeling Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstract Service (division of the American Chemical Society)
VbF: Ordinance on the storage of combustible liquids, Austria
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
SVHC: Substances of Very High Concern
PBT: Persistent Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
STOT: Specific Target Organ Toxicity
ADR: Agreement on Dangerous Goods by Road
RID: Regulations concerning the Intl Transport of Dangerous Goods by Rail
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Dangerous Goods
IATA: International Air Transport Association
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Sources

Own data from manufacture
Chemical safety report according to REACH registration dossier

Source document control

Source SDS revision	Version 3
Source SDS date	2021.12.10

DISCLAIMER

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Green Valley Laboratory I 435 Hartford Pike, Killingly, CT 06241, USA I Help@dauphineorganics.com