

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 11/10/2023
Version: 5.1
Replaces version: 5.0
Language: en-EU
Date of print: 13/10/2023

Green On® Vital

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Green On® Vital
UFI: 0S0R-QWV2-MJ9Q-X0JM

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

General use: Fertilizer

1.3 Details of the supplier of the safety data sheet

Company name: Phytoplanta GmbH
Street/POB-No.: Fürschlag 3
Postal Code, city: 91564 Neuendettelsau
Germany
WWW: www.phytoplanta.com
E-mail: info@phytoplanta.com
Telephone: +49 9874 50482825
Department responsible for information:
Telephone: +49 9874 50482825
E-mail: reach.phytoplanta@phytoplanta.com

1.4 Emergency telephone number

International Poisons Information Service/Transportation emergency call:
CHEMTREC (contract no. CCN 1015354), 24h: +44 20 3885 0382 (EMEA)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Skin Irrit. 2; H315 Causes skin irritation.
Eye Dam. 1; H318 Causes serious eye damage.
Aquatic Acute 1; H400 Very toxic to aquatic life.
Aquatic Chronic 1; H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (CLP)



Signal word:

Danger

Hazard statements: H315 Causes skin irritation.
H318 Causes serious eye damage.
H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements:	P273	Avoid release to the environment.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P310	Immediately call a POISON CENTER/doctor.
	P391	Collect spillage.
	P501	Dispose of contents/container to hazardous or special waste collection point.

Special labelling

Text for labelling: Contains Copper glycinate sulfate dihydrate.

2.3 Other hazards

Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% (w/w) or higher.
The product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Hazardous ingredients:

Identifiers	Designation Classification	Content
REACH 01-2120856529-40-xxxx EC No. 241-221-4 CAS 17169-60-7	Ferrous monoglycinate sulfate Eye Irrit. 2; H319.	25 - 50 %
REACH 01-2120856527-44-xxxx list no. 838-538-0 CAS 52139-31-8	Manganese monoglycinate sulfate Skin Irrit. 2; H315.	10 - 25 %
REACH 01-2120932679-40-xxxx CAS 2917586-55-9	Zinc monoglycinate sulfate hydrate Aquatic Acute 1; H400. Aquatic Chronic 1; H410.	10 - 25 %
REACH 01-2120932680-57-xxxx CAS 2917586-53-7	Copper glycinate sulfate dihydrate Acute Tox. 4; H302. Skin Irrit. 2; H315. Eye Dam. 1; H318. Aquatic Acute 1; H400. Aquatic Chronic 1; H410.	10 - 25 %
REACH 01-2119457026-42-xxxx EC No. 201-069-1 CAS 77-92-9	Citric acid, anhydrous Eye Irrit. 2; H319. STOT SE 3; H335.	1 - 10 %

Full text of H- and EUH-statements: see section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information:	If medical advice is needed, have product container or label at hand. Take off contaminated clothing and wash it before reuse. First aider: Pay attention to self-protection!
In case of inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if problems persist.
Following skin contact:	Immediately clean with water and soap followed by thorough rinsing. In case of skin reactions, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently seek the immediate attention of an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation. Causes skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
It can take hours before symptoms of poisoning show up following exposure.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water spray jet, foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:
Full water jet

5.2 Special hazards arising from the substance or mixture

May form dangerous gases and vapours in case of fire.
Furthermore, there may develop: Manganese oxides, Zinc oxide, nitrogen oxides, sulphur oxides, carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Use fine water spray to cool endangered containers. Do not allow water used to extinguish fire to enter drains, ground or waterways. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid generation of dust. Do not breathe dust. Avoid contact with the substance.
If possible, eliminate leakage. Provide adequate ventilation.
Wear appropriate protective equipment. Keep unprotected people away.
Take off contaminated clothing and wash it before reuse.

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6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains.
If necessary notify appropriate authorities.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid generation of dust. Do not breathe dust. Avoid contact with the substance. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.
Work place should be equipped with a shower and an eye rinsing apparatus.

Precautions against fire and explosion:
Usual measures for fire prevention.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:
Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from heat and direct sunlight.

Hints on joint storage:
Keep away from food, drink and animal feedingstuffs.
Do not store together with:
Strong acids, strong bases, oxidizing agents.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.
In the case of the formation of dust: Dust should be exhausted directly at the point of origin.

Personal protection equipment

Occupational exposure controls

Respiratory protection: In case of dust formation: Particulates filter P2 according to EN 143.
Respiratory protection must be worn whenever the WEL levels have been exceeded.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

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Hand protection:	Protective gloves according to EN 374. Glove material: rubber gloves. Layer thickness: 0.5 mm. Breakthrough time: 480 min. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Tightly sealed goggles according to EN ISO 16321-1:2022.
Body protection:	Wear suitable protective clothing.
General protection and hygiene measures:	Avoid generation of dust. Do not breathe dust. Avoid contact with the substance. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Work place should be equipped with a shower and an eye rinsing apparatus.

Environmental exposure controls

Refer to "6.2 Environmental precautions".

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	solid
Colour:	Form: microgranulate brown, white, blue
Odour:	Neutral
Odour threshold:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Flash point/flash point range:	Not applicable
Decomposition temperature:	No data available
pH:	at 25 °C, 5 g/L: 3.8
Viscosity, kinematic:	No data available
Water solubility:	Soluble
Partition coefficient: n-octanol/water:	< -3.3 log P(o/w) (Manganese monoglycinate sulfate) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Vapour pressure:	No data available
Density:	No data available
Vapour density:	No data available
Particle characteristics:	No data available

9.2 Other information

Explosive properties:	The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.
Oxidizing characteristics:	No data available
Auto-ignition temperature:	No data available
Bulk density:	900 - 1200 g/L
Evaporation rate:	No data available
Additional information:	conductivity: 787 µS (1g/L, 24,1°C, pH=3,48) 2,83 mS (5g/L, 26,4°C, pH=3,99)

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SECTION 10: Stability and reactivity

10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Protect from heat and direct sunlight. Protect from moisture contamination.

10.5 Incompatible materials

Do not store together with: strong acids, strong bases, oxidizing agents.

10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.
ATEmix (calculated): ATE > 2,000 mg/kg

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.

Serious eye damage/irritation: Eye Dam. 1; H318 = Causes serious eye damage.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

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11.2 Information on other hazards

Endocrine disrupting properties:

None

Other information:

Information about Ferrous monoglycinate sulfate:
LD50 Rat, oral: 2,000 - 5,000 mg/kg (OECD 425)

Information about Manganese monoglycinate sulfate:
LD50 Rat, oral: 2,000 - 5,000 mg/kg (OECD 425)

Information about Zinc monoglycinate sulfate hydrate:
LD50 Rat, oral: 2,200 mg/kg (OECD 425)

Information about Copper glycinate sulfate dihydrate:
LD50 Rat, oral: 1,532 mg/kg (OECD 425)

Information about Citric acid:
LD50 Rat, oral: 5,400 mg/kg (OECD 401)
LD50 Rat, dermal: > 2,000 mg/kg (OECD 402)

Symptoms

Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

After contact with skin: Reddening. On sustained exposition to this chemical: dermatitis.

After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

Information about Manganese monoglycinate sulfate:

Fish toxicity:

LC50, Caspian white fish: 224 mg/L/96h (comparable to OECD 203)

Daphnia toxicity:

EC50, Daphnia magna (Big water flea): 142 mg/L/48h (OECD 202)

Algae toxicity:

EC50, Pseudokirchneriella subcapitata (green algae): 61.4 mg/L/72h (OECD 201)

Information about Zinc monoglycinate sulfate hydrate:

Fish toxicity:

LC50, Oncorhynchus mykiss: 0.5 mg/L/96h

Daphnia toxicity:

LC50, Daphnia magna (Big water flea): 3.11 mg/L/48h (Read-across)

Algae toxicity:

EC50, Pseudokirchneriella subcapitata (green algae): 0.52 mg/L/72h (Read-across)

Information about Citric acid:

Bacterial toxicity:

NOEC Pseudomonas putida: > 10000 mg/L/16h

algae toxicity:

NOEC 425 mg/L/8d

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 1535 mg/L/24h (OECD 202)

Fish toxicity:

LC50 Leuciscus idus: 440 - 706 mg/L/48h (OECD 203)

12.2 Persistence and degradability

Further details:

No data available

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12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:

< -3.3 log P(o/w) (Manganese monoglycinate sulfate)

Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

The product does not contain any substances classified as PBT or vPvB.

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 02 01 08* = Agrochemical waste containing hazardous substances
* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.
Do not dispose of with household waste.

Package

Recommendation: Dispose of waste according to applicable legislation.
Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID, ADN, IMDG, IATA-DGR:
UN 3077

14.2 UN proper shipping name

ADR/RID, ADN, IMDG, IATA-DGR:
UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Zinc glycinate sulfate hydrate, Copper glycinate sulfate dihydrate)

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14.3 Transport hazard class(es)

ADR/RID, ADN: Class 9, Code: M7
IMDG: Class 9, Subrisk -
IATA-DGR: Class 9

14.4 Packing group

ADR/RID, ADN, IMDG, IATA-DGR:
III

14.5 Environmental hazards

Dangerous for the environment:

Substance/mixture is environmentally hazardous according to the criteria of the UN model regulations.

Marine pollutant - IMDG: yes

Marine pollutant - ADN: yes

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board: ADR/RID: Kemmler-number 90, UN number UN 3077
Hazard label: 9
Special Provisions: 274 335 375 601
Limited quantities: 5 kg
EQ: E1
Package - Instructions: P002 IBC08 LP02 R001
Package - Special Provisions: PP12 B3
Special provisions for packing together: MP10
Portable tanks - Instructions: T1 BK1 BK2 BK3
Portable tanks - Special Provisions: TP33
Tank coding: SGAV LGBV
Tunnel restriction code: -

Inland waterway craft (ADN)

Hazard label: 9
Special Provisions: 274 335 375 601
Limited quantities: 5 kg
EQ: E1
Transport permitted: T
Equipment necessary: PP

Sea transport (IMDG)

EmS: F-A, S-F
Special Provisions: 274 335 966 967 969
Limited quantities: 5 kg
Excepted quantities: E1
Package - Instructions: P002, LP02
Package - Provisions: PP12
IBC - Instructions: IBC08
IBC - Provisions: B3
Tank instructions - IMO: -
Tank instructions - UN: T1, BK2, BK2, BK3
Tank instructions - Provisions: TP33
Stowage and handling: Category A. SW23
Properties and observations: -
Segregation group: none



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Air transport (IATA)

Hazard label:	Miscellaneous & Environmentally hazardous
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y956 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft:	Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg
Cargo Aircraft only:	Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg
Special Provisions:	A97 A158 A179 A197 A215
Emergency Response Guide-Code (ERG):	9L

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

National regulations - EC member states

Labelling of packaging with <= 125mL content



Signal word:

Danger

Hazard statements:

H318

Causes serious eye damage.

Precautionary statements:

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER/doctor.

Further regulations, limitations and legal requirements:

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

Environmental hazards: Code E1, Quantity threshold 100 000 kg / 200 000 kg

Use restriction according to REACH annex XVII, no.: 75.

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Wording of the H-phrases under paragraph 2 and 3:

H302 = Harmful if swallowed.

H315 = Causes skin irritation.

H318 = Causes serious eye damage.

H319 = Causes serious eye irritation.

H335 = May cause respiratory irritation.

H400 = Very toxic to aquatic life.

H410 = Very toxic to aquatic life with long lasting effects.

Reason of change:

Changes in section 2: Bulk density

Date of first version:

26/9/2023

Department issuing data sheet:

see section 1: Department responsible for information

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Abbreviations and acronyms:

- Acute Tox.: Acute toxicity
- ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- Aquatic Acute: Hazardous to the aquatic environment - acute
- Aquatic Chronic: Hazardous to the aquatic environment - chronic
- AS/NZS: Australian Standards/New Zealand Standards
- ATE: Acute toxicity estimate
- CAS: Chemical Abstracts Service
- CFR: Code of Federal Regulations
- CLP: Classification, Labelling and Packaging
- DMEL: Derived minimal effect level
- DNEL: Derived no-effect level
- EC: European Community
- EC50: Effective Concentration 50%
- EN: European Standard
- EQ: Excepted quantities
- EU: European Union
- Eye Dam.: Eye damage
- Eye Irrit.: Eye irritation
- IATA: International Air Transport Association
- IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
- IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
- IMDG Code: International Maritime Dangerous Goods Code
- LC50: Median lethal concentration
- LD50: Lethal dose 50%
- log P(o/w): Partition coefficient: octanol/water
- MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
- NOEC: No Observed Effect Concentration
- OECD: Organisation for Economic Co-operation and Development
- OEL: Occupational Exposure Limit Value
- OSHA: Occupational Safety and Health Administration
- PBT: Persistent, bioaccumulative and toxic
- PNEC: Predicted no-effect concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
- Skin Irrit.: Skin irritation
- STOT SE: Specific target organ toxicity - single exposure
- TLV: Threshold Limit Value
- TRGS: Technical Rules for Hazardous Substances
- UN: United Nations
- vPvB: Very persistent and very bioaccumulative
- WEL: Workplace Exposure Limit

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.