

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

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

1.1 Product identifier

Trade name: Green On® Kartoffel / Potato / Patata / Pomme de terre

UFI: WM0R-QWG9-0J9Q-MADG

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

General use:

Fertilizer Reserved for industrial and professional use.

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; H315Causes skin irritation.Eye Dam. 1; H318Causes serious eye damage.Aquatic Acute 1; H400Very toxic to aquatic life.Aquatic Chronic 1; H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling	(CLP)
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Signal word:	Danger	
Hazard statements:	H315 H318 H410	Causes skin irritation. Causes serious eye damage. Very toxic to aquatic life with long lasting effects.



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Precautionary statements:	P273 P280	Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
	P305+P351+P338 P310 P391	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. 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: No data available

SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Hazardous ingredients:

Identifiers	Designation Classification	Content
REACH 01-2120856527-44-xxxx list no. 838-538-0 CAS 52139-31-8	Manganese monoglycinate sulfate Skin Irrit. 2; H315.	50 - 75 %
REACH 01-2120932679-40-xxxx CAS 2917586-55-9	Zinc monoglycinate sulfate hydrate Aquatic Acute 1; H400. Aquatic Chronic 1; H410.	25 - 50 %
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.	1 - 10 %
REACH 01-2120856529-40-xxxx EC No. 241-221-4 CAS 17169-60-7	Ferrous monoglycinate sulfate Eye Irrit. 2; H319.	1 - 10 %
REACH 01-2119457026-42- EC No. 201-069-1 CAS 77-92-9	xxxxCitric 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 damage. 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. 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.	
	Recommendation: Store at room temperature.	
Hints on joint storage:	Keep away from food, drink and animal feedingstuffs. Do not store together with: strong acids, strong bases, strong 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.

PNEC

Information about Citric acid:

- PNEC water (freshwater): 0.44 mg/L
- PNEC water (marine water): 0.044 mg/L
- PNEC sediment (freshwater): 34.6 mg/kg dw
- PNEC sediment (marine water): 3.46 mg/kg dw
- PNEC soil: 33.1 mg/kg dw
- PNEC sewage treatment plant: 1000 mg/L
- PNEC sediment (freshwater): 7.52 mg/kg wet weight
- PNEC sediment (marine water): 0.752 mg/kg wet weight
- PNEC soil: 29.2 mg/kg wet weight

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.

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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.	
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. 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 Form: microgranulate
Colour:	white, blue, brown
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: 3.5
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



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Auto-ignition temperature: Bulk density: Evaporation rate: Additional information: No data available 900 - 1200 g/L No data available conductivity: 764 µS (1g/L, 23,5°C, pH=3,5) 2,79 mS (5g/L, 23,1°C, pH=3,12)

SECTION 10: Stability and reactivity

10.1 Reactivity

Refer to subsection "Possilbility 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

Strong acids, strong bases, strong oxidizing agents.

10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.Thermal decomposition:No data available

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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.

11.2 Information on other hazards

Endocrine	disrupting	properties:

Endoornio diorupting proporti	
	No data available
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.



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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 glycinate 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

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

No data available

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.



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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number:

Recommendation:

Agrochemical waste containing hazardous substances * = Evidence for disposal must be provided. 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)

14.3 Transport hazard class(es)

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

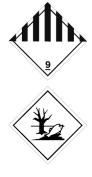
14.4 Packing group

ADR/RID, ADN, IMDG, IATA-DGR Ш

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





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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:	Т
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
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

Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg A97 A158 A179 A197 A215 9L

14.7 Maritime transport in bulk according to IMO instruments

No data available

Special Provisions:

Emergency Response Guide-Code (ERG):

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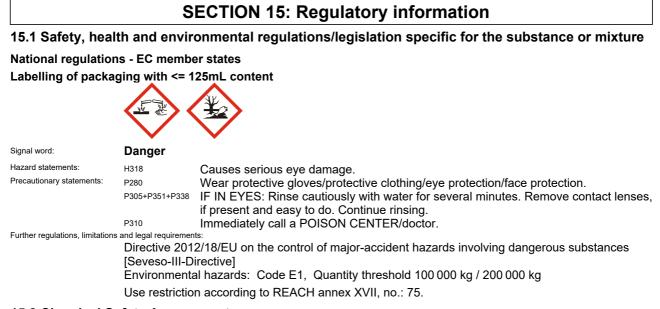


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15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information		
Wording of the H-phrases u	nder 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: Date of first version: Department issuing data sh	General revision 29/9/2023 eet: see section 1: Department responsible for information	



Abbreviations and acronyms:

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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.