

Article No.: 12182961
Print date: 08.03.2018
Version: 4.0

Complesal Microplant
Revision date: 09.11.2017
Issue date: 09.11.2017

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

1.1. product identifiers

Article No. (manufacturer/supplier) 12182961
Identification of the substance or mixture Complesal Microplant
Product code: P21829

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

Relevant identified uses

Fertilizers

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

AGLUKON Spezialdünger GmbH & Co. KG

Heerdter Landstraße 199

40549 Düsseldorf

Germany

Telephone: +49 (0) 211 5064 0

Telefax: +49 (0) 211 5064 247

Dept. responsible for information:

E-mail (competent person)

reach@aglukon.com

1.4. Emergency telephone number

GIZ Mainz, POISON CENTER

Germany

Information in English and German

Tel.: +49 (0) 6131 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Hazard statements

not applicable

Precautionary statements

not applicable

contains:

not applicable

Supplemental Hazard information (EU)

EUH210

Safety data sheet available on request.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Product description / chemical characterization

Description

Hazardous ingredients

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No.

REACH No.

CAS No.

Chemical name

INDEX No.

classification: // Remark

Wt %

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233-139-2	01-2119486683-25-XXXX	
10043-35-3	boric acid	1 < 2
005-007-00-2	Repr. 1B H360FD // This substance has been listed as SVHC (substance of very high concern) in the Candidate List according to Article 59 of REACH.	
268-018-3		
67989-88-2	Ethylenediaminetetraacetic acid copper(II) diammonium salt Acute Tox. 4 H302	3 < 5

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of inhalation

Move victim to fresh air.

Following skin contact

Wash with plenty of soap and water.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water.

4.2. Most important symptoms and effects, both acute and delayed

No known symptoms to date.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

The product itself does not burn.

Suitable extinguishing media:

Water spray jet, Water mist, carbon dioxide, Powder

Extinguishing media which must not be used for safety reasons:

strong water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: nitrogen oxides, Ammonia, Sulphur oxides

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. When using do not eat, drink or smoke. Personal protection equipment: refer to

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section 8. Follow the legal protection and safety regulations.

Precautions against fire and explosion:

No special measures are necessary.

7.2. **Conditions for safe storage, including any incompatibilities**

Requirements for storage rooms and vessels

Protect from heat and direct sunlight. Keep container tightly closed. Always keep in containers that correspond to the material of the original container.

Hints on joint storage

Do not store together with: Food and feedingstuffs.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 0 °C and 30 °C.

7.3. **Specific end use(s)**

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**

Occupational exposure limit values

boric acid

INDEX No. 005-007-00-2 / EC No. 233-139-2 / CAS No. 10043-35-3

BC, OEL, TWA: 2 mg/m³

BC, OEL, STEL: 6 mg/m³

Additional information

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

DNEL:

manganese sulphate monohydrate

INDEX No. 025-003-00-4 / EC No. 232-089-9 / CAS No. 10034-96-5

DNEL long-term dermal (systemic), Workers: 0,0041 mg/kg bw/day

edetic acid

INDEX No. 607-429-00-8 / EC No. 200-449-4 / CAS No. 60-00-4

DNEL acute inhalative (local), Workers: 2,5 mg/m³

DNEL acute inhalative (systemic), Workers: 2,5 mg/m³

DNEL long-term inhalative (local), Workers: 2,5 mg/m³

DNEL long-term inhalative (systemic), Workers: 2,5 mg/m³

boric acid

INDEX No. 005-007-00-2 / EC No. 233-139-2 / CAS No. 10043-35-3

DNEL long-term dermal (systemic), Workers: 392 mg/kg bw/day

DNEL long-term inhalative (systemic), Workers: 8,28 mg/m³

DNEL short-term oral (acute), Consumer: 0,98 mg/kg bw/day

DNEL long-term oral (repeated), Consumer: 0,98 mg/kg

DNEL long-term dermal (systemic), Consumer: 196 mg/kg bw/day

DNEL long-term inhalative (systemic), Consumer: 4,15 mg/m³

PNEC:

manganese sulphate monohydrate

INDEX No. 025-003-00-4 / EC No. 232-089-9 / CAS No. 10034-96-5

PNEC aquatic, freshwater: 0,0128 mg/l

PNEC aquatic, marine water: 0,4 µg/l

PNEC sediment, freshwater: 0,0114 mg/kg

PNEC sediment, marine water: 1,4 µg/kg

PNEC, soil: 25,1 mg/kg

PNEC sewage treatment plant (STP): 56 mg/l

edetic acid

INDEX No. 607-429-00-8 / EC No. 200-449-4 / CAS No. 60-00-4

PNEC aquatic, freshwater: 2,2 mg/l

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PNEC aquatic, marine water: 0,22 mg/l
PNEC aquatic, intermittent release: 1,2 mg/l
PNEC, soil: 0,72 mg/kg
PNEC sewage treatment plant (STP): 43 mg/l

boric acid

INDEX No. 005-007-00-2 / EC No. 233-139-2 / CAS No. 10043-35-3

PNEC aquatic, freshwater: 2,02 mg B/L
PNEC aquatic, marine water: 2,02 mg B/L
PNEC, soil: 5,4 mg B/kg
PNEC sewage treatment plant (STP): 10 mg B/L

8.2. Exposure controls

See section 7. No additional measures necessary.

Occupational exposure controls

Respiratory protection

Usually no personal respirative protection necessary.

Hand protection

For prolonged or repeated handling the following glove material must be used: e.g. NBR (Nitrile rubber).

Thickness of the glove material: No data available. Breakthrough time (maximum wearing time): No data available.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.

Eye protection

Wear closely fitting protective glasses in case of splashes.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical state: Liquid
Colour: green-brown

Odour: characteristic

Odour threshold: not applicable

pH at 20 °C: 6,4

Melting point/freezing point: not applicable

Initial boiling point and boiling range: not determined

Flash point: not applicable

Evaporation rate: not applicable

Flammability (solid, gas):

Burning time (s): not applicable

Upper/lower flammability or explosive limits:

Lower explosion limit: not applicable

Upper explosion limit: not applicable

Vapour pressure at 20 °C: not applicable

Vapour density: not applicable

Relative density:

Density at 20 °C: 1,57 g/cm³

Solubility(ies):

Water solubility (g/L) at 20 °C: very soluble

Partition coefficient: n-octanol/water: see section 12

Auto-ignition temperature: not applicable

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Decomposition temperature: not applicable
Viscosity at 20 °C: not determined
Explosive properties: not applicable
Oxidising properties: not applicable

9.2. **Other information**

No information available.

SECTION 10: Stability and reactivity

10.1. **Reactivity**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

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.

10.5. **Incompatible materials**

Alkali (lye)

10.6. **Hazardous decomposition products**

Does not decompose when used for intended uses. Hazardous decomposition byproducts may form with exposure to high temperatures: nitrogen oxides, Ammonia, Sulphur oxides

SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
No data on preparation itself available.

11.1. **Information on toxicological effects**

Acute toxicity

Complesal Microplant

oral, LD50, Rat: > 2000 mg/kg

Calculation method.

copper sulphate pentahydrate

oral, LD50, Rat: 301 mg/kg ; evaluation Harmful if swallowed.

Method: OECD 401

iron (II) sulfate heptahydrate

oral, LD50, Rat: 583 mg/kg ; evaluation Harmful if swallowed.

Method: OECD 401

edetic acid

oral, LD50, Rat: 1780 ; evaluation Harmful if swallowed.

inhalative (dust and mist), LC50, Rat: 1 - 5 mg/l (4 h); evaluation Harmful if inhaled.

Method: OECD 403

skin corrosion/irritation; Serious eye damage/eye irritation

copper sulphate pentahydrate

eyes: evaluation Causes serious eye damage.

Skin: evaluation Causes skin irritation.

iron (II) sulfate heptahydrate

Skin (4 h)

Method: OECD 404

Irritating to skin.

edetic acid

eyes, Rabbit: evaluation Causes serious eye damage.

Respiratory or skin sensitisation

Toxicological data are not available.

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Specific target organ toxicity

edetic acid

Specific target organ toxicity (repeated exposure): evaluation May cause damage to lung through prolonged or repeated exposure by inhalation.

Aspiration hazard

Toxicological data are not available.

Practical experience/human evidence

No information available.

Overall Assessment on CMR properties

EC No. CAS No.	Chemical name	Classification according to Regulation (EC) No 1272/2008 [CLP]
233-139-2 10043-35-3	boric acid	Repr. 1B

Remark

There is no information available on the preparation itself .

SECTION 12: Ecological information

overall evaluation

Classification according to Regulation (EC) No 1272/2008 [CLP]
There is no information available on the preparation itself .

12.1. Toxicity

manganese sulphate monohydrate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 30,6 mg/l (96 h)

Daphnia toxicity, EC50, Daphnia magna: 8,3 mg/l (48 h)

Algae toxicity, ErC50, Desmodesmus subspicatus.: 61 mg/l (72 h)

copper sulphate pentahydrate

Daphnia toxicity, EC50, Daphnia magna: 0,025 mg/l (48 h)

Long-term Ecotoxicity

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

Bioconcentration factor (BCF)

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of proposed waste codes/waste designations in accordance with EWC

020109 Agrochemical waste other than those mentioned in 02 01 08

packaging

Recommendation

Non-contaminated packages may be recycled.

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SECTION 14: Transport information

This mixture is not classified as dangerous according to international transport regulations (ADR/RID, IMDG, ICAO/IATA).

No dangerous good in sense of this transport regulation.

14.1. **UN number**
not applicable

14.2. **UN proper shipping name**

14.3. **Transport hazard class(es)**
not applicable

14.4. **Packing group**
not applicable

14.5. **Environmental hazards**
Land transport (ADR/RID) not applicable
Marine pollutant not applicable

14.6. **Special precautions for user**
Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

tunnel restriction code -

Sea transport (IMDG)

EmS-No. not applicable

Air transport (ICAO-TI / IATA-DGR)

14.7. **Transport in bulk according to Annex II of Marpol and the IBC Code**
Not applicable.

SECTION 15: Regulatory information

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

EU legislation

REACH

SVHC/candidate list: boric acid List of substances of very high concern (SVHC) from which the substances to be included in Annex XIV of the REACH Regulation (list of substances subject to authorisation) are selected. The candidate list is established in accordance with Article 59 of the REACH Regulation.

Directive 2010/75/EU on industrial emissions

VOC-value (in g/L): 0,000

National regulations

Restrictions of occupation

15.2. **Chemical Safety Assessment**

For the following substances of this preparation a chemical safety assessment has been carried out:

EC No.	Chemical name	REACH No.
CAS No.		
233-139-2	boric acid	01-2119486683-25-XXXX
10043-35-3		

SECTION 16: Other information

Full text of classification in section 3:

Repr. 1B / H360FD Reproductive toxicity

May damage fertility. May damage the unborn child.

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

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Acute Tox. 4 / H302

Acute toxicity (oral)

Harmful if swallowed.

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.