

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Basfoliar® Buffer SL



Version: 2.5
Date of last issue: 23.12.2022
Date of first issue: 18.05.2016

Revision Date:
06.04.2023

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

1.1 Product identifier

Trade name : Basfoliar® Buffer SL

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

Use of the Substance/Mixture : Fertilizer

1.3 Details of the supplier of the safety data sheet

Company : COMPO EXPERT GmbH
Krögerweg 10
D-48155 Münster

Telephone : +49 (0) 251 29 79 81 – 000

Telefax : +49 (0) 251 29 79 81 - 111

E-mail address of person responsible for the SDS : info@compo-expert.com

1.4 Emergency telephone number

GBK GmbH - Global Regulatory Compliance - 24h
Telephone: +49 (0) 6132 - 84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Category 1A H314: Causes severe skin burns and eye damage.

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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| | | |
|--------------------------|---|--|
| Hazard pictograms | : | |
| Signal word | : | Danger |
| Hazard statements | : | H314 Causes severe skin burns and eye damage. H412 Harmful to aquatic life with long lasting effects. |
| Precautionary statements | : | Prevention: P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. 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 or doctor/ physician. Storage: P405 Store locked up. Disposal: P501 Dispose of contents/ container to an approved waste disposal plant. |

2.3 Other hazards

Irritating to eyes and skin.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Watery mixture of organic and inorganic fertilizing salts, trace elements and complexing agents.

Hazardous components

| Chemical Name | CAS-No. EC-No. Registration number | Classification | Concentration (% w/w) |
|---------------|--|----------------|--------------------------|
|---------------|--|----------------|--------------------------|

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| | | | |
|----------------------|-----------------------|---|---------------|
| orthophosphoric acid | 7664-38-2 | Skin Corr. 1B; H314 | >= 10 - <= 25 |
| | 231-633-2 | | |
| | 01-2119485924-24-XXXX | specific concentration limit Skin Corr. 1B; H314 >= 25 % Skin Irrit. 2; H315 10 - < 25 % Eye Irrit. 2; H319 10 - < 25 % | |
| zinc sulphate | 7733-02-0 | Acute Tox. 4; H302 Eye Dam. 1; H318 | >= 1 - <= 2,5 |
| | 231-793-3 | Aquatic Acute 1; H400 | |
| | 01-2119474684-27-XXXX | Aquatic Chronic 1; H410 | |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Take off immediately all contaminated clothing.
Wash contaminated clothing before re-use.
- If inhaled : Fresh air.
Obtain medical attention.
- In case of skin contact : Wash off with soap and water.
Consult a doctor if skin irritation persists.
- In case of eye contact : Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
- If swallowed : Drink plenty of water.

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Fresh air.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : The product is not flammable.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : No particular hazards known.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Environmental precautions : Product should not reach open waters.
Do not allow product to enter the sewage system

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Apply means of neutralization.

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Dispose contaminated material waste according to chapter 13.

Clean thoroughly.

Flush with water.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Handle and open container with care.

Advice on protection against fire and explosion : No special precautions required.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed. Keep away from heat. Keep away from direct sunlight.

Further information on storage conditions : Requirements for storage areas and containers No special precautions required.

Advice on common storage : not required

Storage class (TRGS 510) : 8B, Non-combustible, corrosive hazardous materials

Recommended storage temperature : 5 - 35 °C

7.3 Specific end use(s)

Specific use(s) : Always read the label and product information before use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|----------------------|------------|-------------------------------|---------------------|------------|
| orthophosphoric acid | 7664-38-2 | TWA | 1 mg/m ³ | 2000/39/EC |
| Further information | Indicative | | | |
| | | STEL | 2 mg/m ³ | 2000/39/EC |

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| Further information | Indicative | | | |
|---|--|----------------------------|--|-------------|
| | | (Inhalable fraction) | 2 mg/m ³ | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 2;(I) | | | |
| Further information | Commission for dangerous substances, Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., European Union (The EU has established a limit value: deviations in value and peak limit are possible), When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child | | | |
| | | TLV-C (Inhalable fraction) | 1 ml/m ³ 1 mg/m ³ | other |
| | | TLV-C (Inhalable fraction) | 2 ml/m ³ 2 mg/m ³ | AGW |

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|----------------------|------------------------------------|-----------------|--------------------------|-------|
| Basfoliar® Buffer SL | | | | |
| Remarks: | This information is not available. | | | |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
|----------------------|------------------------------------|-------|
| Basfoliar® Buffer SL | | |
| Remarks: | This information is not available. | |

8.2 Exposure controls

Personal protective equipment

Eye protection : Tightly fitting safety goggles

Hand protection

Remarks : Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

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- | | |
|--------------------------|--|
| Skin and body protection | : Protective suit |
| Respiratory protection | : respiratory protection only if aerosol or dust is formed. |
| Protective measures | : Handle in accordance with good industrial hygiene and safety practice. |

Environmental exposure controls

- | | |
|----------------|--|
| General advice | : Product should not reach open waters. Do not allow product to enter the sewage system |
|----------------|--|
-

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|-----------------------------|-----------------------|
| Physical state | : liquid |
| Colour | : green |
| Odour | : odourless |
| pH | : 0,7, (20 °C) |
| Melting point/range | : No data available |
| Boiling point/boiling range | : No data available |
| Flash point | : No data available |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : not readily ignited |
| Upper explosion limit | : No data available |
| Lower explosion limit | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density | : No data available |

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| | |
|--|---|
| Density | : ca. 1,23 g/cm ³ (20 °C) |
| Solubility(ies) | |
| Water solubility | : completely miscible |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No decomposition if stored and applied as directed. |
| Viscosity | |
| Viscosity, dynamic | : No data available |
| Explosive properties | : Not explosive |
| Oxidizing properties | : not fire-propagating |

9.2 Other information

| | |
|-----------------|---------------------|
| Surface tension | : No data available |
|-----------------|---------------------|

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

| | |
|---------------------|---|
| Hazardous reactions | : No hazardous reactions if stored and handled as prescribed/indicated. |
|---------------------|---|

10.4 Conditions to avoid

| | |
|---------------------|---|
| Conditions to avoid | : No dangerous reaction known under conditions of normal use. Protect from frost, heat and sunlight. |
|---------------------|---|

10.5 Incompatible materials

| | |
|--------------------|---|
| Materials to avoid | : No substances known that should be avoided. |
|--------------------|---|

10.6 Hazardous decomposition products

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| | |
|----------------------------------|--|
| Hazardous decomposition products | : In case of fire hazardous decomposition products may be produced such as: nitrogen oxides |
|----------------------------------|--|

SECTION 11: Toxicological information

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

Acute toxicity

Product:

| | |
|---------------------|---|
| Acute oral toxicity | : LD50 (Rat): 2.949 mg/kg Remarks: information on: Zinc sulfate |
|---------------------|---|

Components:

orthophosphoric acid:

| | |
|---------------------|---|
| Acute oral toxicity | : LD50 (Rat): 2.600 mg/kg Method: OECD Guideline 423 |
|---------------------|---|

zinc sulphate:

| | |
|---------------------|---------------------------------|
| Acute oral toxicity | : LD50 (Rat): 862 - 4.429 mg/kg |
|---------------------|---------------------------------|

| | |
|-----------------------|------------------------------------|
| Acute dermal toxicity | : LD50 Dermal (Rat): > 2.000 mg/kg |
|-----------------------|------------------------------------|

Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

Components:

zinc sulphate:

Species: Rabbit

Assessment: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Irritating to eyes.

Components:

zinc sulphate:

Species: Rabbit

Result: Risk of serious damage to eyes.

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Respiratory or skin sensitisation

Product:

Remarks: None known.

germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects
The product has not been tested. The information is derived from the properties of the individual components.

Carcinogenicity

Product:

Remarks: Contains no ingredient listed as a carcinogen

Reproductive toxicity

Product:

Effects on fertility :
Remarks: No toxicity to reproduction

Effects on foetal development : Remarks: Contains no ingredient listed as toxic to reproduction

STOT - single exposure

Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

No data available

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Further information

No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,43 mg/l
Exposure time: 96 h
Remarks: information on:
Zinc sulfate

Components:

zinc sulphate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,43 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,86 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Scenedesmus quadricauda (Green algae)): 0,52 mg/l
Exposure time: 120 h

Toxicity to bacteria : EC50 (Bacteria): 22,75 mg/l
Exposure time: 0,5 h

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Elimination: no

12.4 Mobility in soil

Product:

Mobility : Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : Remarks: No data available

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12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

Additional ecological
information

: Do not flush into surface water or sanitary sewer system.
Depending on local conditions and existing concentrations,
disturbances in the biodegradation process of activated
sludge are possible.
Due to the pH-value of the product, neutralization is generally
required before discharging sewage into treatment plants.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

| | |
|------------------------|--|
| Product | : Check if agriculture use is possible. The local regulations on waste-water treatment must be followed. |
| Contaminated packaging | : Observe national and local legal requirements. Suitable cleaning agents Water |

SECTION 14: Transport information

14.1 UN number or ID number

| | |
|------|-----------|
| ADN | : UN 1805 |
| ADR | : UN 1805 |
| RID | : UN 1805 |
| IMDG | : UN 1805 |
| IATA | : UN 1805 |

14.2 UN proper shipping name

| | |
|------|-----------------------------|
| ADN | : PHOSPHORIC ACID SOLUTION |
| ADR | : PHOSPHORIC ACID SOLUTION |
| RID | : PHOSPHORIC ACID SOLUTION |
| IMDG | : PHOSPHORIC ACID SOLUTION |
| IATA | : Phosphoric acid, solution |

14.3 Transport hazard class(es)

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| | |
|-------------|-----|
| ADN | : 8 |
| ADR | : 8 |
| RID | : 8 |
| IMDG | : 8 |
| IATA | : 8 |

14.4 Packing group

| | |
|--|------------|
| ADN | |
| Packing group | : III |
| Classification Code | : C1 |
| Hazard Identification Number | : 80 |
| Labels | : 8 |
| ADR | |
| Packing group | : III |
| Classification Code | : C1 |
| Hazard Identification Number | : 80 |
| Labels | : 8 |
| Tunnel restriction code | : (E) |
| RID | |
| Packing group | : III |
| Classification Code | : C1 |
| Hazard Identification Number | : 80 |
| Labels | : 8 |
| IMDG | |
| Packing group | : III |
| Labels | : 8 |
| EmS Code | : F-A, S-B |
| Segregation group | : |
| IATA | |
| Packing instruction (cargo aircraft) | : 856 |
| Packing instruction (passenger aircraft) | : 852 |
| Packing instruction (LQ) | : Y841 |
| Packing group | : III |
| Labels | : 8 |

14.5 Environmental hazards

| | |
|---------------------------|------|
| ADN | |
| Environmentally hazardous | : no |
| ADR | |
| Environmentally hazardous | : no |

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RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Water contaminating class : WGK 2 water endangering
(Germany)

15.2 Chemical Safety Assessment

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed.
H314 : Causes severe skin burns and eye damage.
H318 : Causes serious eye damage.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Acute : Acute aquatic toxicity
Aquatic Chronic : Chronic aquatic toxicity
Eye Dam. : Serious eye damage
Skin Corr. : Skin corrosion

(Q)SAR - (Quantitative) Structure Activity Relationship; 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; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on

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Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TRGS - Technical Rule for Hazardous Substances; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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