

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Basfoliar® CalPlus Flo



Version: 2.4
Date of last issue: 23.12.2022
Date of first issue: 12.08.2016

Revision Date:
06.04.2023

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

1.1 Product identifier

Trade name : Basfoliar® CalPlus Flo
UFI : X8U2-G0AG-Q001-U5DY

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

Use of the : Fertilizer
Substance/Mixture

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 : info@compo-expert.com
responsible for the SDS

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)

Acute toxicity, Category 4 H302: Harmful if swallowed.

Serious eye damage, Category 1 H318: Causes serious eye damage.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms

:



Signal word

: Danger

Hazard statements

: H302
H318

Harmful if swallowed.
Causes serious eye damage.

Precautionary statements

: **Prevention:**

P264

Wash hands thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P280

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

Response:

P301 + P312

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

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.

P330

Rinse mouth.

Disposal:

P501

Dispose of contents / container in accordance with local / regional / national / international regulations.

2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature

: Liquid mixture of organic and inorganic salts of fertilizers.

Hazardous components

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

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Calcium nitrate Tetrahydrate	13477-34-4 233-332-1 01-2119495093-35-XXXX	Acute Tox. 4; H302 Eye Dam. 1; H318	$\geq 50 - < 60$
Boric acid	11113-50-1 234-343-4 01-2119486683-25-XXXX	Repr. 1B; H360FD	$\geq 0 - \leq 0,5$

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- If inhaled : Remove to fresh air.
If symptoms persist, seek medical advice.
- In case of skin contact : Take off immediately all contaminated clothing.
Wash off immediately with soap and plenty of water.
Consult a doctor if skin irritation persists.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,
for at least 15 minutes.
If symptoms persist, seek medical advice.
- If swallowed : Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.
no specific Antidote known

SECTION 5: Firefighting measures

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5.1 Extinguishing media

Suitable extinguishing media : Product does not burn, fire-extinguishing activities according to surrounding.

Unsuitable extinguishing media : No information available.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : In case of combustion evolution of dangerous gases possible.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

Further information : Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. Prevent fire extinguishing water from contaminating surface water or the ground water system. 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 : Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

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). Rinse 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 : Avoid contact with skin, eyes and clothing.

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Handle in accordance with good industrial hygiene and safety practice.

Hygiene measures : Avoid contact with skin, eyes and clothing. Hands and/or face should be washed before breaks and at the end of the shift. When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage : Keep away from food, drink and animal feedingstuffs.

Storage class (TRGS 510) : 12, Non Combustible Liquids

Recommended storage temperature : 5 - 20 °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
Boric acid	11113-50-1	TWA	2,6 mg/m ³	DE TRGS 900
		STEL	5,2 mg/m ³	DE TRGS 900
			0,5 mg/m ³	

We are not aware of any national exposure limit.

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Calcium nitrate Tetrahydrate	Workers	Inhalation	Specific effects	24,5 mg/m ³
Remarks:	Exposure time: 1 DAY			
	Workers	Skin contact	Specific effects	13,9 mg/kg
Remarks:	Exposure time: 1 DAY			

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	Consumers	Inhalation	systemic effects	6,3 mg/m ³
	Consumers	Skin contact	systemic effects	8,33 mg/kg
	Consumers	Ingestion	systemic effects	8,33 mg/kg
Remarks:	Exposure time: 1 DAY			
Boric acid	Workers	Inhalation	Long-term exposure, Systemic effects	8,28 mg/m ³
	Workers	Skin contact	Long-term exposure, Systemic effects	392 mg/kg
	Consumers	Ingestion	Short-term exposure, Systemic effects	0,98 mg/kg
	Consumers	Ingestion	Long-term exposure, Systemic effects	0,98 mg/kg
	Consumers	Inhalation	Long-term exposure, Systemic effects	4,15 mg/m ³
	Consumers	Skin contact	Long-term exposure, Systemic effects	196 mg/kg

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

Substance name	Environmental Compartment	Value
Calcium nitrate Tetrahydrate	Fresh water	0,45 mg/l
	Marine water	0,045 mg/l
	Ceiling Limit Value	4,5 mg/l

8.2 Exposure controls

Engineering measures

Ensure thorough ventilation of stores and work areas.

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166

Hand protection

Remarks : Chemical resistant protective gloves (EN 374). PVC or other

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plastic material gloves

Skin and body protection : Wearing of closed work clothing is recommended.

Respiratory protection : Avoid inhalation of vapour.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Prevent further leakage or spillage if safe to do so.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: liquid
Colour	: green
Odour	: odourless
Odour Threshold	: No data available
pH	: 5,5 - 6
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: does not flash
Evaporation rate	: No data available
Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 1,46 - 1,52 g/cm ³

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Solubility(ies)

Water solubility : soluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water

: Not applicable

Auto-ignition temperature

: Not applicable

Decomposition temperature

: No decomposition if stored and applied as directed.

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties

: Not explosive

Oxidizing properties

: Not considered an oxidizing substance

9.2 Other information

Surface tension : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable

No decomposition if stored and applied as directed.

10.2 Chemical stability

The product is chemically stable.

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : No decomposition if stored and applied as directed.

10.5 Incompatible materials

Materials to avoid : No dangerous reaction known under conditions of normal use.

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10.6 Hazardous decomposition products

Stable under normal conditions.

SECTION 11: Toxicological information

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

Acute toxicity

Product:

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Components:

Calcium nitrate Tetrahydrate:

Acute oral toxicity : LD50: > 300 mg/kg

Acute inhalation toxicity : Remarks: Not relevant because of low vapour pressure.

Remarks: Not relevant because of low dust formation.

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Guideline 402

Boric acid:

Acute oral toxicity : LD50 (Mouse): 3.450 mg/kg

LD50 (Rat): 2.660 mg/kg

Acute inhalation toxicity : LC50 (Rat): 2 mg/l

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg

Skin corrosion/irritation

Product:

Remarks: May irritate skin.

Components:

Calcium nitrate Tetrahydrate:

Species: Rabbit

Result: No skin irritation

Boric acid:

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Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Components:

Calcium nitrate Tetrahydrate:

Species: Rabbit
Result: Irritating to eyes.

Boric acid:

Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

Respiratory or skin sensitisation

Product:

Remarks: May cause sensitisation by inhalation and skin contact.

Components:

Boric acid:

Method: OECD Test Guideline 406
Result: non-sensitizing

germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Components:

Boric acid:

Genotoxicity in vitro : Test Type: Mammalian cell gene mutation assay
Result: Mutagenicity tests revealed no genotoxic potential.
Remarks: In vitro tests did not show mutagenic effects

Germ cell mutagenicity-Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Product:

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Remarks: Contains no ingredient listed as a carcinogen

Components:

Boric acid:

Species: Rat

Application Route: Oral

Method: OECD Test Guideline 451

Remarks: Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Product:

Effects on fertility

:
Remarks: Contains no ingredient listed as toxic to reproduction

Effects on foetal development

: Remarks: Contains no ingredient listed as toxic to reproduction

Components:

Boric acid:

Effects on foetal development

: Remarks: Animal ingestion studies in several species, at high doses, indicate that borates cause reproductive and developmental effects.

Reproductive toxicity - Assessment

: May damage fertility. May damage the unborn child.

STOT - single exposure

Product:

Assessment: May cause respiratory irritation.

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

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Endocrine disrupting properties

No data available

Further information

Product:

Remarks: Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Components:

Calcium nitrate Tetrahydrate:

Toxicity to fish : LC50 (Guppy): 1.378 mg/l
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 490 mg/l

Toxicity to algae : LC50 (other aquatic plant): > 1.700 mg/l

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

Components:

Calcium nitrate Tetrahydrate:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

Boric acid:

Biodegradability : Remarks: Not applicable

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

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Components:

Calcium nitrate Tetrahydrate:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

12.4 Mobility in soil

Product:

Mobility : Remarks: No data available

Components:

Boric acid:

Mobility : Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : Remarks: Not applicable

Components:

Boric acid:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT)..
Remarks: Not applicable

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

Additional ecological information : There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Fertilizer
Check if agriculture use is possible.

Contaminated packaging : Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

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SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not relevant

SECTION 15: Regulatory information

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

Water contaminating class : WGK 1 slightly water endangering
(Germany)

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed.
H318 : Causes serious eye damage.
H360FD : May damage fertility. May damage the unborn child.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Eye Dam. : Serious eye damage
Repr. : Reproductive toxicity

(Q)SAR - (Quantitative) Structure Activity Relationship; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European

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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 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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