

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Basfoliar® Fruit SP 7-8-34

Version: 3.13
Date of last issue: 17.04.2023
Date of first issue: 29.06.2016

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

1.1 Product identifier

Trade name : Basfoliar® Fruit SP 7-8-34
UFI : 7TH5-X0WR-Q00J-FADR

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 irritation, Category 2	H315: Causes skin irritation.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Reproductive toxicity	H360FD: May damage fertility. May damage the unborn child.

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Basfoliar® Fruit SP 7-8-34



Version: 3.13
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Revision Date:
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Chronic aquatic toxicity, Category 3

H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H315 Causes skin irritation.
H318 Causes serious eye damage.
H360FD May damage fertility. May damage the unborn child.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : P201 Obtain special instructions before use.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage:

P405 Store locked up.

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 : Mixture of nutrient salts based on various inorganic salts. trace elements as Metal chelate

Material Safety Data Sheet

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Basfoliar® Fruit SP 7-8-34



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Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
zinc sulphate	7733-02-0 231-793-3 01-2119474684-27-XXXX	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	<= 0,24
manganese sulphate (1:1)	7785-87-7 232-089-9 01-2119456624-35-XXXX	STOT RE 2; H373 Aquatic Chronic 2; H411 Eye Dam. 1; H318	<= 5
potassium hydrogensulphate	7646-93-7 231-594-1	Skin Corr. 1B; H314 STOT SE 3; H335	>= 0,5 - <= 3
Boric acid	11113-50-1 234-343-4 01-2119486683-25-XXXX	Repr. 1B; H360FD	>= 0,3 - <= 5

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.
- If inhaled : Keep patient calm, remove to fresh air, seek medical attention.
If unconscious place in recovery position and seek medical advice.

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Basfoliar® Fruit SP 7-8-34

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- In case of skin contact : Wash thoroughly with soap and water.
- In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.

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 : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water
Water spray

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : In the event of fire and/or explosion do not breathe fumes.

5.3 Advice for firefighters

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

Further information : 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 : Avoid contact with eyes.

6.2 Environmental precautions

Environmental precautions : Do not empty into drains.
Retain and dispose of contaminated wash water.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.

Material Safety Data Sheet

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Basfoliar® Fruit SP 7-8-34



Version: 3.13
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Revision Date:
17.04.2023

6.4 Reference to other sections

none

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : No special measures necessary if stored and handled as prescribed.
- Advice on protection against fire and explosion : No special precautions required.
- Hygiene measures : At the end of the shift the skin should be cleaned and skin-care agents applied.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep away from heat. Keep away from sources of ignition - No smoking. Keep away from direct sunlight. Keep away from combustible material. Protect from contamination. Protect against humidity (product is hygroscopic and tends to cake or disintegrate)
- Storage class (TRGS 510) : 11, Combustible Solids

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
manganese sulphate (1:1)	manganese sulphate	(Inhalable fraction)	0,5 mg/m ³	DE TRGS 900
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., The threshold value is based on the element content of the corresponding metal., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW (Inhalable fraction)	0,5 mg/m ³ (Manganese)	DE TRGS 900
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., The threshold value is based on the element content of the corresponding metal., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the			

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Basfoliar® Fruit SP 7-8-34

Version: 3.13
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	unborn child			
			0,5 mg/m ³	
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	
none				
Mangansulfat	7785-87-7, 7785-87-7	manganese: 20 µg/l (Blood)	Immediately after exposure or after working hours, In case of long-term exposure: after more than one shift	TRGS 903

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

Substance name	End Use	Exposure routes	Potential health effects	Value
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

8.2 Exposure controls

Personal protective equipment

Hand protection

Remarks : Protective gloves The selection of suitable depends upon the material, and also upon the quality of the gloves. The degree of protection will vary from manufacturer to manufacturer.

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Basfoliar® Fruit SP 7-8-34



Version: 3.13
Date of last issue: 17.04.2023
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Revision Date:
17.04.2023

As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Respiratory protection : Particle filtering disposable mask DIN EN 149 with filter FFP2.

Environmental exposure controls

General advice : Do not empty into drains.
Retain and dispose of contaminated wash water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : crystalline

Colour : light grey

Odour : slightly pungent

Odour Threshold : No data available

pH : ca. 5, Concentration: 100 g/l (20 °C)

Melting point/range : 155 °C

Boiling point/boiling range : Not applicable

Flash point : No data available

Evaporation rate : Not applicable

Flammability (solid, gas) : not readily ignited

Upper explosion limit : Not applicable

Lower explosion limit : Not applicable

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Basfoliar® Fruit SP 7-8-34

Version: 3.13
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Revision Date:
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Relative density	:	No data available
Bulk density	:	ca. 1.100 kg/m ³
Solubility(ies)		
Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	ca. 155 °C To avoid thermal decomposition, do not overheat.
Viscosity		
Viscosity, dynamic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	Not considered an oxidizing substance
Particle characteristics		
Particle Size Distribution	:	D50 = 325 µm D50 Tolerance range = 260 µm - 390 µm Measurement technique: Sieve analysis

9.2 Other information

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 : Hazardous decomposition products formed under fire conditions.

10.4 Conditions to avoid

Conditions to avoid : To avoid thermal decomposition, do not overheat.

10.5 Incompatible materials

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Basfoliar® Fruit SP 7-8-34

Version: 3.13
Date of last issue: 17.04.2023
Date of first issue: 29.06.2016

Revision Date:
17.04.2023

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : Nitrose gases
ammonia

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): > 2.000 mg/kg

Components:

zinc sulphate:

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

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

manganese sulphate (1:1):

Acute oral toxicity : LD50 (Rat): 2.150 mg/kg

potassium hydrogensulphate:

Acute oral toxicity : LD50 Oral (Rat): 2.340 mg/kg

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:

zinc sulphate:

Species: Rabbit

Assessment: Irritating to skin.

Boric acid:

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Basfoliar® Fruit SP 7-8-34



Version: 3.13
Date of last issue: 17.04.2023
Date of first issue: 29.06.2016

Revision Date:
17.04.2023

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Product:

Remarks: May irritate eyes.

Components:

zinc sulphate:

Species: Rabbit
Result: Risk of serious damage to eyes.

Boric acid:

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

Respiratory or skin sensitisation

Product:

Result: non-sensitizing

Components:

Boric acid:

Method: OECD Test Guideline 406
Result: non-sensitizing

germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: Contains no hazardous ingredients according to GHS

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.

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Basfoliar® Fruit SP 7-8-34

Version: 3.13
Date of last issue: 17.04.2023
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Revision Date:
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Carcinogenicity

Product:

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: No toxicity 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: 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.

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Version: 3.13
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11.2 Information on other hazards

Endocrine disrupting properties

No data available

Further information

Product:

Remarks: The product was not tested. The statement was derived from products of similar structure and composition.

SECTION 12: Ecological information

12.1 Toxicity

Components:

zinc sulphate:

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

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

manganese sulphate (1:1):

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 30 mg/l
aquatic invertebrates

potassium hydrogensulphate:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 3.500 mg/l

12.2 Persistence and degradability

Components:

Boric acid:

Biodegradability : Remarks: Not applicable

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

Product:

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Basfoliar® Fruit SP 7-8-34

Version: 3.13
Date of last issue: 17.04.2023
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Mobility : Remarks: No data available

Components:

Boric acid:

Mobility : Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : Remarks: No data available

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 : water endangering
Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Check if agriculture use is possible.
Contact manufacturer.

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

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

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Basfoliar® Fruit SP 7-8-34

Version: 3.13

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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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : contains Boric acid

Water contaminating class (Germany) : WGK 2 water endangering

Other regulations : This product is subject to Regulation (EU) 2019/1148; suspicious transactions, disappearance or theft of the product must be reported to the relevant authority.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this product.

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.
H335 : May cause respiratory irritation.
H360FD : May damage fertility. May damage the unborn child.
H373 : May cause damage to organs through prolonged or repeated exposure.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.
H411 : Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Acute : Acute aquatic toxicity

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Basfoliar® Fruit SP 7-8-34



Version: 3.13
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Aquatic Chronic	: Chronic aquatic toxicity
Eye Dam.	: Serious eye damage
Repr.	: Reproductive toxicity
Skin Corr.	: Skin corrosion
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure

(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 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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