according to Regulation (EC) No. 1907/2006

Basfoliar® ZnMn Flo



Version: 1.6 Revision Date:
Date of last issue: 06.04.2023 08.03.2024

Date of first issue: 08.09.2020

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

1.1 Product identifier

Trade name : Basfoliar® ZnMn Flo

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

Use of the : Fertiliser

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

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)

Short-term (acute) aquatic hazard, H400:

Category 1

H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard,

H410: Very toxic to aquatic life with long lasting

Category 1

effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

according to Regulation (EC) No. 1907/2006

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Hazard pictograms

*

Signal word : Warning

Hazard statements : H410 Very toxic to aquatic life with long lasting

effects.

Precautionary statements : Prevention:

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

Disposal:

P501 Dispose of contents/ container to an

approved waste disposal plant.

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 fertilzers.

Hazardous components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Registration number		
zinc oxide	1314-13-2	Aquatic Acute 1;	>= 20 - < 30
		H400	
	215-222-5	Aquatic Chronic 1;	
		H410	
	01-2119463881-32-		
	XXXX		

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Ethylene glycol	107-21-1	Acute Tox. 4; H302	>= 1 - < 5
	203-473-3		
		Acute toxicity estimate	
		Acute oral toxicity: 500 mg/kg	
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 specific concentration limit Skin Sens. 1; H317 >= 0,05 %	< 0,005
		Acute toxicity estimate	
		Acute oral toxicity: 500 mg/kg	

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled : If breathed in, move person into fresh air.

In case of skin contact : Wash off with soap and water.

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: Immediately flush eye(s) with plenty of water. In case of eye contact

If symptoms persist, seek medical advice.

If swallowed : Rinse mouth with water.

Drink 1 or 2 glasses of water.

If symptoms persist, seek medical advice.

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

: Treat symptomatically. Treatment

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : In case of fire, use water/water spray/water jet/carbon

dioxide/sand/foam/alcohol resistant foam/chemical powder for

extinction.

Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing

media

: Not relevant

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: In case of combustion evolution of dangerous gases possible.

nitrogen oxides

ammonia

5.3 Advice for firefighters

for firefighters

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

Further information : The product is not flammable.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid contact with skin, eyes and clothing.

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6.2 Environmental precautions

Environmental precautions : Do not let product enter drains, surface water or subsoil water.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Allow to solidify, use mechanical handling equipment.

Shovel into suitable container for disposal.

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

Wash hands before breaks and at the end of workday.

Hygiene measures : Avoid contact with skin, eyes and clothing. 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 away from direct sunlight. Keep in a cool, well ventilated

place away from reducing agents.

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

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

Recommended storage

temperature

: 20 - 25 °C

Other data : Protect from frost, heat and sunlight.

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
zinc oxide	1314-13-2		2 mg/m3	
Ethylene glycol	107-21-1		10 ppm 26 mg/m3	DE TRGS 900
Peak-limit:	2;(I)			

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excursion factor (category)			
	STEL	40 ppm	
		104 mg/m3	
	TWA	20 ppm	
		52 mg/m3	
		10 ml/m3	TRGS 900
		26 mg/m3	(DE)

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

Substance name	End Use	Exposure routes	Potential health effects	Value
zinc oxide	Workers	Inhalation	Long-term exposure	5 mg/m3
	Workers	Ingestion	Long-term exposure, Systemic effects	0,8 mg/kg
	Workers	Skin contact	Long-term exposure, Systemic effects	83 mg/kg

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

Substance name		Environmental Compartment	Value	
Substance name		Livi ominental compartment	Value	
zinc oxide		Fresh water	0,0206 mg/l	
		Marine water	0,0061 mg/l	
Remarks:	Derivation	Derivation of the PNEC, Zinc		
		Fresh water sediment	235,6 mg/l	
	Derivation of the PNEC, Zinc			
		Marine sediment	113 mg/l	
	Derivation of the PNEC, Zinc			
		Soil	106,8 mg/l	
	Derivation of the PNEC, Zinc			
	•	Behaviour in waste water treatment plants	0,052 mg/l	
	Derivation	of the PNEC, Zinc		

8.2 Exposure controls

Engineering measures

according to Regulation (EC) No. 1907/2006

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Ensure thorough ventilation of stores and work areas.

Personal protective equipment

Eye protection : Safety glasses

Hand protection

Remarks : Protective gloves

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

Respiratory protection : No personal respiratory protective equipment normally

required.

Breathing apparatus only if aerosol or dust is formed.

Environmental exposure controls

General advice : Do not let product enter drains, surface water or subsoil

water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour : beige

Odour : odourless

Odour Threshold : No data available

pH : 8-9

Melting point/range : No data available

Boiling point/boiling range : > 100 °C

Flash point : Not applicable

according to Regulation (EC) No. 1907/2006

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Evaporation rate : No data available

Flammability (solid, gas) : does not ignite

Upper explosion limit : not determined

Lower explosion limit : not determined

Vapour pressure : No data available

Relative vapour density : No data available

Density : 1,8 g/cm³

Solubility(ies)

Water solubility : soluble

Partition coefficient: n-

octanol/water

: No data available

Auto-ignition temperature : Not applicable

Decomposition temperature : No data available

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 under recommended storage conditions. No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under normal conditions.

No decomposition if stored and applied as directed.

according to Regulation (EC) No. 1907/2006

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10.3 Possibility of hazardous reactions

Hazardous reactions : Keep away from oxidizing agents, and acidic or alkaline

products.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Materials to avoid : Incompatible with strong acids and oxidizing agents.

Incompatible with bases.

10.6 Hazardous decomposition products

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

SECTION 11: Toxicological information

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

Acute toxicity

Product:

: Remarks: This information is not available. Acute oral toxicity

Components:

zinc oxide:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5,7 mg/l

Exposure time: 4 h

Test atmosphere: vapour

Acute dermal toxicity : Remarks: No data available

Ethylene glycol:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg

Acute inhalation toxicity : LC50 (Rat): 2 ppm

Acute dermal toxicity : LD50 (mouse): > 3.500 mg/kg

1,2-benzisothiazol-3(2H)-one:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg

Skin corrosion/irritation

Product:

Result: No skin irritation

according to Regulation (EC) No. 1907/2006

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Components:

zinc oxide:

Remarks: non-irritant

Serious eye damage/eye irritation

Product:

Remarks: No data available

Components:

zinc oxide:

Method: OECD Test Guideline 405

Remarks: non-irritant

Respiratory or skin sensitisation

Product:

Result: No data available

Components:

zinc oxide:

Method: OECD Test Guideline 406

Remarks: Did not cause sensitisation on laboratory animals.

germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Components:

zinc oxide:

Germ cell mutagenicity- : In vivo tests did not show mutagenic effects

Assessment

Carcinogenicity

Product:

Remarks: Contains no ingredient listed as a carcinogen

Components:

zinc oxide:

Carcinogenicity -: According to experience not expected

according to Regulation (EC) No. 1907/2006

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Assessment

Reproductive toxicity

Product:

Effects on fertility

Remarks: Contains no ingredient listed as toxic to

reproduction

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

development reproduction

Components:

zinc oxide:

Reproductive toxicity - : No toxicity to reproduction

Assessment No experimental indication of genotoxic effects.

STOT - single exposure

Product:

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

Components:

zinc oxide:

Remarks: This information is not available.

STOT - repeated exposure

Product:

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

Components:

zinc oxide:

Remarks: No known effect.

Aspiration hazard

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

11.2 Information on other hazards

Endocrine disrupting properties

No data available

according to Regulation (EC) No. 1907/2006

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Further information

No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: Toxic effects on fish and plankton

Components:

zinc oxide:

Toxicity to fish : LC50 (Fish): 0,14 mg/l

Exposure time: 96 h Test Type: static test

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 2,2 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 0,17 mg/l

Exposure time: 72 h Test Type: static test

1,2-benzisothiazol-3(2H)-one:

Toxicity to fish : LC50 (Salmo trutta (brown trout)): = 2,18 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): = 2,18 mg/l

Exposure time: 48 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): = 0,11

mg/l

Exposure time: 72 h

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Components: zinc oxide:

Biodegradability : Remarks: The methods for determining biodegradability are

not applicable to inorganic substances.

according to Regulation (EC) No. 1907/2006

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12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: The product has not been tested.

12.4 Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among

environmental compartments

: Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : Remarks: Not applicable

Components: zinc oxide:

Assessment : Non-classified PBT substance.

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

Additional ecological

information

: May contribute to eutrophication in static waters, therefore

should not be released into surface waters.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special

disposal required according to local regulations.

Do not flush into surface water or sanitary sewer system.

Contaminated packaging : If recycling is not practicable, dispose of in compliance with

local regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : UN 3082

according to Regulation (EC) No. 1907/2006

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 ADR
 : UN 3082

 RID
 : UN 3082

 IMDG
 : UN 3082

 IATA
 : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (zinc oxide)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (zinc oxide)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (zinc oxide)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (zinc oxide)

IATA : Environmentally hazardous substance, liquid, n.o.s.

(zinc oxide)

14.3 Transport hazard class(es)

ADN : 9
ADR : 9
RID : 9
IMDG : 9
IATA : 9

14.4 Packing group

ADN

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

ADR

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (-)

RID

according to Regulation (EC) No. 1907/2006

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Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

IMDG

Packing group : III
Labels : 9
EmS Code : F-A, S-F

Segregation group : : (-)

IATA

Packing instruction (cargo : 964

aircraft)

Packing instruction : 964

(passenger aircraft)

Packing instruction (LQ) : Y964
Packing group : III
Labels : 9

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Quantity 1 Quantity 2

according to Regulation (EC) No. 1907/2006

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ANNEX I;E1 ENVIRONMENTAL 100.000 kg 200.000 kg

HAZARDS

Water hazard class

(Germany)

: WGK 2 water endangering

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed. H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction.
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 : Short-term (acute) aquatic hazard Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Dam. : Serious eye damage Skin Irrit. : Skin irritation Skin Sens. : Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test

according to Regulation (EC) No. 1907/2006

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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; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; 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; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

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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