

# Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

## Basfoliar® Multi Si SL



Version: 1.3  
Date of last issue: 23.12.2022  
Date of first issue: 05.12.2019

Revision Date:  
07.04.2023

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

#### 1.1 Product identifier

Trade name : Basfoliar® Multi Si 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

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Acute aquatic toxicity, Category 1 H400: Very toxic to aquatic life.

Chronic aquatic toxicity, Category 1 H410: Very toxic 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

: Warning

Hazard statements

: H410

Very toxic to aquatic life with long lasting effects.

Precautionary statements

: P391

Collect spillage.

### 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)
zinc oxide	1314-13-2 215-222-5 01-2119463881-32-XXXX	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	$\geq 5 - \leq 15$
copper oxide (CuO)	1317-38-0 215-269-1	M-Factor (Acute aquatic toxicity): 100  M-Factor (Chronic aquatic toxicity): 10	$\geq 5 - \leq 15$

For explanation of abbreviations see section 16.

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### 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.   |
| In case of eye contact  | : Immediately flush eye(s) with plenty of water.<br>If symptoms persist, seek medical advice.         |
| If swallowed            | : Rinse mouth with water.<br>Drink 1 or 2 glasses of water.<br>If symptoms persist, call a physician. |

#### 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   | : In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction.<br>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. |
|--------------------------------------|--|

#### 5.3 Advice for firefighters

- |   |  |
|---|--|
| Special protective equipment for firefighters | : In the event of fire, wear self-contained breathing apparatus. |
| Further information                           | : The product is not flammable.                                  |
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### SECTION 6: Accidental release measures

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### 6.1 Personal precautions, protective equipment and emergency procedures

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

### 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.

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## 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 : Protect from atmospheric humidity. Keep away from direct  
sunlight. Keep in a cool, well ventilated place away from  
reducing agents.

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

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

Recommended storage temperature : 5 - 30 °C

Other data : Protect against falling below the following temperature: -5°C

### 7.3 Specific end use(s)

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

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

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Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
zinc oxide	1314-13-2		2 mg/m <sup>3</sup>	

### 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/m <sup>3</sup>
	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
zinc oxide	Fresh water	0,0206 mg/l
	Marine water	0,0061 mg/l
Remarks:	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

Ensure thorough ventilation of stores and work areas.

### Personal protective equipment

Eye protection : Safety glasses

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### 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.  
respiratory protection 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	: pink
Odour	: odourless
Odour Threshold	: No data available
pH	: 8 - 9, Concentration: 10 g/l (20 °C)
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: Not applicable
Evaporation rate	: No data available
Flammability (solid, gas)	: does not ignite
Upper explosion limit	: Not applicable

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Lower explosion limit	: Not applicable
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 1,45 g/cm <sup>3</sup> (20 °C)
Solubility(ies)	
Water solubility	: completely soluble
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
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## 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.

### 10.3 Possibility of hazardous reactions

Hazardous reactions	: Reacts with reducing agents.
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### 10.4 Conditions to avoid

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

### 10.5 Incompatible materials

Materials to avoid : Strong reducing agents

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed., No hazardous decomposition products are known.

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## SECTION 11: Toxicological information

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

#### Acute toxicity

##### Product:

Acute oral toxicity : No data available:

Acute inhalation toxicity : LC50 (Rat): 5 mg/l  
Exposure time: 4 h

##### 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

#### Skin corrosion/irritation

##### Product:

Result: No skin irritation

##### Components:

##### **zinc oxide:**

Remarks: non-irritant

#### Serious eye damage/eye irritation

##### Product:

Remarks: slight irritation

##### Components:



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### **zinc oxide:**

Method: OECD Test Guideline 405

Remarks: non-irritant

### **Respiratory or skin sensitisation**

#### **Product:**

Result: non-sensitizing

#### **Components:**

##### **zinc oxide:**

Method: OECD Test Guideline 406

Remarks: Did not cause sensitisation on laboratory animals.

### **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.

#### **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  
Assessment

### **Reproductive toxicity**

#### **Product:**

Effects on fertility :  
Remarks: No toxicity to reproduction

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

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### **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

### **Further information**

No data available

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### **Product:**

Toxicity to fish : Remarks: No data available

### **Components:**

#### **zinc oxide:**

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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
<b>copper oxide (CuO):</b>	
M-Factor (Acute aquatic toxicity)	: 100
M-Factor (Chronic aquatic toxicity)	: 10

### 12.2 Persistence and degradability

#### **Product:**

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

##### **zinc oxide:**

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

### 12.3 Bioaccumulative potential

#### **Product:**

Bioaccumulation	: Remarks: Does not bioaccumulate.
-----------------	------------------------------------

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

## **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  
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, copper oxide)  
( )

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(zinc oxide, copper oxide)  
( )

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<b>RID</b>	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (zinc oxide, copper oxide) ( )
<b>IMDG</b>	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (zinc oxide, copper oxide) ( )
<b>IATA</b>	: Environmentally hazardous substance, liquid, n.o.s. (zinc oxide, copper oxide) ( )

### 14.3 Transport hazard class(es)

<b>ADN</b>	: 9
<b>ADR</b>	: 9
<b>RID</b>	: 9
<b>IMDG</b>	: 9
<b>IATA</b>	: 9

### 14.4 Packing group

<b>ADN</b>	
Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90
Labels	: 9
<b>ADR</b>	
Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90
Labels	: 9
Tunnel restriction code	: (-)
<b>RID</b>	
Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90
Labels	: 9
<b>IMDG</b>	
Packing group	: III
Labels	: 9
EmS Code	: F-A, S-F
Segregation group	:

**IATA**

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Packing instruction (cargo aircraft) : 964  
Packing instruction (passenger aircraft) : 964  
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

Not applicable for product as supplied.

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## 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
ANNEX I;E1	ENVIRONMENTAL HAZARDS	100.000 kg	200.000 kg

Water contaminating class (Germany) : WGK 2 water endangering

### 15.2 Chemical Safety Assessment

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Not relevant

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### SECTION 16: Other information

#### Full text of H-Statements

H400 : Very toxic to aquatic life.  
H410 : Very toxic to aquatic life with long lasting effects.

#### Full text of other abbreviations

Aquatic Acute : Acute aquatic toxicity  
Aquatic Chronic : Chronic aquatic toxicity

(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

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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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