Material Safety Data Sheet
according to Regulation (EC) No. 1907/2006

Basfoliar Fruit SP 7-8-34

Version: 3.4

Revision Date: 05.07.2017

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

1.1 Product identifier

Trade name : Basfoliar Fruit SP 7-8-34

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
Kroegerweg 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

Quality / Safety / Environment
Telephone:+49 (0) 2151 - 579 - 0

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.
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.
		H412	Harmful to aquatic life with long lasting effects.
Precautionary statements	:	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.
		P310	Immediately call a POISON CENTER or doctor/ physician.
		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

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
potassium nitrate	7757-79-1 231-818-8 01-2119488224-35-XXXX	Ox. Sol. 3; H272	>= 10 - <= 40
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	>= 0,1 - <= 0,24
manganese sulphate	7785-87-7 232-089-9 01-2119456624-35-XXXX	STOT RE 2; H373 Aquatic Chronic 2; H411	>= 0,5 - <= 5
potassium hydrogensulphate	7646-93-7 231-594-1	Skin Corr. 1B; H314 STOT SE 3; H335	>= 0,5 - <= 3

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.
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 fire-fighting	:	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.

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		(Inhalable fraction)	0,5 mg/m3	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			

			0,5 mg/m3	

none

Mangansulfat	7785-87-7, 7785-87-7	manganese: 20 µg/l (Blood)	Immediately after exposition or after working hours, In case of long-term exposition: 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
potassium nitrate	Workers	Inhalation	Systemic effects	36,7 mg/m3
	Workers	Skin contact	Systemic effects	20,8 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Ingestion	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Skin contact	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Inhalation	Systemic effects	10,9 mg/m3

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

Substance name	Environmental Compartment	Value
potassium nitrate	Fresh water	0,45 mg/l
	Marine water	0,045 mg/l
	Ceiling Limit Value	4,5 mg/l
	Sewage treatment plant	18 mg/l

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. 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 : Breathing apparatus only if aerosol or dust is formed.

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

Appearance	:	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
Relative density	:	No data available
Bulk density	:	ca. 1.100 kg/m³
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

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

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 toxicological effects

Acute toxicity

Product:

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

Components:

potassium nitrate:

Acute oral toxicity	:	LD50 (Rat): > 2.000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 0,527 mg/l
Acute dermal toxicity	:	LD50 (Rat): > 5.000 mg/kg

zinc sulphate:

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

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

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

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

Skin corrosion/irritation

Product:
Remarks: May irritate skin.

Components:
potassium nitrate:
Species: Rabbit
Result: No skin irritation

zinc sulphate:
Species: Rabbit
Assessment: Irritating to skin.

Serious eye damage/eye irritation

Product:
Remarks: May irritate eyes.

Components:
potassium nitrate:
Species: Rabbit
Result: No eye irritation

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

Respiratory or skin sensitisation

Product:
Result: non-sensitizing

Components:
potassium nitrate:
Result: non-sensitizing

Germ cell mutagenicity

Product:

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

Components:

potassium nitrate:

Genotoxicity in vitro : Remarks: No data available

Carcinogenicity

Product:

Remarks: Contains no ingredient listed as a carcinogen

Components:

potassium nitrate:

Remarks: Did not show carcinogenic effects in animal experiments.

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:

potassium nitrate:

Effects on fertility : Remarks: No toxicity to reproduction

Effects on foetal development : Remarks: Did not show teratogenic effects in animal experiments.

STOT - single exposure

Product:

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

Components:

potassium nitrate:

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.

Components:

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

Repeated dose toxicity

Components:

potassium nitrate:
Species: Rat
NOAEL: >= 1.500 mg/kg
Exposure time: 1 d

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:

potassium nitrate:

Toxicity to fish	:	LC50 (Fish): > 100 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 490 mg/l Exposure time: 48 h
Toxicity to algae	:	LC50 : >= 1.700 mg/l Exposure time: 10 d

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

manganese sulphate:

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

potassium hydrogensulphate:

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

12.2 Persistence and degradability

Components:

potassium nitrate:

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

12.3 Bioaccumulative potential

Components:

potassium nitrate:

Bioaccumulation	:	Remarks: Does not bioaccumulate.

12.4 Mobility in soil

Product:

Mobility	:	Remarks: No data available

Components:

potassium nitrate:

Mobility	:	Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	Remarks: No data available

Components:

potassium nitrate:

Assessment	:	This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

12.6 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

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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks	:	Not relevant

SECTION 15: Regulatory information

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

Water contaminating class (Germany)	:	WGK 2 water endangering

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this product.

SECTION 16: Other information

Full text of H-Statements

H272	:	May intensify fire; oxidizer.
H302	:	Harmful if swallowed.
H314	:	Causes severe skin burns and eye damage.
H318	:	Causes serious eye damage.
H335	:	May cause respiratory irritation.
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
Aquatic Chronic	:	Chronic aquatic toxicity
Eye Dam.	:	Serious eye damage
Ox. Sol.	:	Oxidizing solids
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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