

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

TerraPlus® K 6-3-18



Version: 2.6
Date of last issue: 23.12.2022
Date of first issue: 22.03.2016

Revision Date:
06.04.2023

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

1.1 Product identifier

Trade name : TerraPlus® K 6-3-18

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)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Supplemental Hazard Statements : EUH210 Safety data sheet available on request.

2.3 Other hazards

According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Fertilizer
organic
inorganic

Hazardous components

| Chemical Name | CAS-No. EC-No. Registration number | Classification | Concentration (% w/w) |
|---------------|---|--|--------------------------|
| iron sulphate | 7720-78-7 231-753-5 01-2119513203-57-XXXX | Acute Tox. 4; H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315 Acute toxicity estimate Acute oral toxicity: 500 mg/kg | $\geq 1 - \leq 2$ |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled : Move to fresh air.
Obtain medical attention.
If unconscious place in recovery position and seek medical advice.
In case of lung irritation, first treatment with dexametason aerosol (spray).

In case of skin contact : Wash off 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 : Ingestion may provoke the following symptoms:

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Methaemoglobinemia

Risks : Later control for pneumonia and lung oedema.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.
There is no specific antidote available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water

Unsuitable extinguishing media : Foam
Dry chemical
Carbon dioxide (CO₂)
Sand

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Thermal decomposition can lead to release of irritating gases and vapours.
Nitrogen oxides (NO_x)
ammonia

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 : Keep away from children.

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.

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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 : Keep away from direct sunlight.
Keep away from heat.
Protect from contamination.
Protect from moisture.
- Advice on protection against fire and explosion : The product is not flammable. Keep away from heat and sources of ignition. Keep away from combustible materials.
- Hygiene measures : 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 heat. Keep away from sources of ignition - No smoking. Keep away from combustible material. Protect from contamination. When stored loose do not mix with other fertilizers. Protect from moisture.
- Advice on common storage : Keep away from strong acids.
Keep away from strong bases.
Keep away from combustible materials.
- Storage class (TRGS 510) : 13, Non Combustible Solids
- Dampness : Keep in a dry place.

7.3 Specific end use(s)

- Specific use(s) : Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---------------|-----------|-------------------------------|----------------------------|---------|
| iron sulphate | 7720-78-7 | TWA | 1 mg/m ³ (Iron) | GB EH40 |

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

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|----------------|---------|-----------------|--------------------------|-------|
|----------------|---------|-----------------|--------------------------|-------|

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| | | | | |
|---------------|---------------------|--------------|--------------------------------------|-----------|
| iron sulphate | Workers | Skin contact | Acute effects, systemic effects | 2,8 mg/kg |
| Remarks: | Exposure time: 24 h | | | |
| | Workers | Inhalation | Acute effects, systemic effects | 9,9 mg/m3 |
| | Workers | Skin contact | Chronic effects, systemic effects | 2,8 mg/kg |
| Remarks: | Exposure time: 24 h | | | |
| | Workers | Inhalation | Chronic effects, systemic effects | 9,9 mg/m3 |
| | Consumers | Ingestion | Acute effects, systemic effects | 1,4 mg/kg |
| Remarks: | Exposure time: 24 h | | | |
| | Consumers | Skin contact | Acute effects, systemic effects | 1,4 mg/kg |
| Remarks: | Exposure time: 24 h | | | |
| | Consumers | Inhalation | Acute effects, systemic effects | 2,5 mg/m3 |
| | Consumers | Ingestion | systemic effects, Chronic effects | 1,4 mg/kg |
| Remarks: | Exposure time: 24 h | | | |
| | Consumers | Skin contact | Chronic effects, systemic effects | 1,4 mg/kg |
| Remarks: | Exposure time: 24 h | | | |
| | Consumers | Inhalation | Chronic effects, systemic effects | 2,5 mg/m3 |

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

| Substance name | Environmental Compartment | Value |
|----------------|---|-------|
| iron sulphate | Water | |
| Remarks: | This product has no known ecotoxicological effects. | |

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| | | |
|--|---|--------------|
| | Behaviour in waste water treatment plants | 2483 mg/l |
| | Fresh water sediment | 246000 mg/kg |
| | Marine sediment | 246000 mg/kg |
| | Soil | 276000 mg/kg |

8.2 Exposure controls

Personal protective equipment

Eye protection : In case of dust formation:
Safety glasses

Hand protection
Material : Gloves

Skin and body protection : No special protective equipment required.

Respiratory protection : respiratory protection only if aerosol or dust is formed.
Respirator with a particle filter (EN 143)
P1 filter

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 : solid
Colour : various
Odour : odourless
Odour Threshold : No data available

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| | |
|--|---|
| pH | : ca. 5, Concentration: 100 g/l (20 °C) |
| Melting point/range | : No data available |
| Boiling point/boiling range | : Not applicable |
| Flash point | : Not relevant |
| Evaporation rate | : Not applicable |
| Flammability (solid, gas) | : The product is not flammable. |
| Upper explosion limit | : Not explosive |
| Lower explosion limit | : Not explosive |
| Vapour pressure | : Not applicable |
| Relative vapour density | : Not applicable |
| Relative density | : Not applicable |
| Bulk density | : ca. 1.150 kg/m ³ |
| Solubility(ies) | |
| Water solubility | : soluble |
| Partition coefficient: n-octanol/water | : Not applicable |
| Viscosity | |
| Viscosity, dynamic | : Not applicable |
| Viscosity, kinematic | : 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

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10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

Decomposes on heating.

10.3 Possibility of hazardous reactions

Hazardous reactions : Evolution of ammonia under influence of alkalies.

10.4 Conditions to avoid

Conditions to avoid : Keep away from heat and sources of ignition.

10.5 Incompatible materials

Materials to avoid : Sulphur, chlorites, chloride, chlorates, Hypochlorites, acid or alkaline reacting substances, flammable oxidizable substances, nitrites, metallic salts, metallic powder, herbicide, chlorinated hydrocarbons, organic compounds.

10.6 Hazardous decomposition products

Hazardous decomposition products : Nitrogen oxides (NO_x)
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 : Remarks: This information is not available.
Health injuries are not known or expected under normal use.

Components:

iron sulphate:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401

LD50 (Rat): 657 - 4.390 mg/kg
Method: Calculation method

Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

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

Acute dermal toxicity : LD50 (Rat): > 1.992 mg/kg

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Method: Converted acute toxicity point estimate

Skin corrosion/irritation

Product:

Result: non-irritant

Remarks: The product has not been tested. The information is derived from the properties of the individual components.

Components:

iron sulphate:

Method: OECD Test Guideline 404

Result: Skin irritation

Remarks: Irritating to skin and mucous membranes

Serious eye damage/eye irritation

Product:

Species: Rabbit

Method: OECD Test Guideline 405

Result: non-irritant

Components:

iron sulphate:

Method: OECD Test Guideline 405

Result: Eye irritation

Respiratory or skin sensitisation

Product:

Result: non-sensitizing

Remarks: The product has not been tested. The information is derived from the properties of the individual components.

Components:

iron sulphate:

Method: OECD TG 429

Result: Did not cause sensitisation on laboratory animals.

germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

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Carcinogenicity

Product:

Remarks: Contains no ingredient listed as a carcinogen

Components:

iron sulphate:

Carcinogenicity - Assessment : Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

Reproductive toxicity

Product:

Effects on fertility :
Remarks: No toxicity to reproduction

Effects on foetal development : Remarks: Did not show teratogenic effects in animal experiments.
Information given is based on data obtained from similar substances.

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.

Components:

iron sulphate:

Remarks: No known effect.

Repeated dose toxicity

Components:

iron sulphate:

Species: Rat

NOAEL: 284 - 324 mg/kg

Application Route: Oral

Exposure time: 90 d

Remarks: Information given is based on data obtained from similar substances.

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Species: Rat
NOAEL: 100 mg/kg
Application Route: Oral
Exposure time: 49 d

Application Route: by inhalation
Remarks: This information is not available.

Application Route: Dermal
Remarks: This information is not available.

Aspiration hazard

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

11.2 Information on other hazards

Endocrine disrupting properties

No data available

Experience with human exposure

Product:

General Information : Danger of methaemoglobin formation.

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:

iron sulphate:

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Components:

iron sulphate:

Biodegradability : Remarks: The methods for determining the biological

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degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Components:

iron sulphate:

Bioaccumulation : Remarks: Accumulation in aquatic organisms is unlikely.

12.4 Mobility in soil

Product:

Mobility : Remarks: Groundwater contamination is unlikely.

Distribution among environmental compartments : Remarks: No data available

Components:

iron sulphate:

Distribution among environmental compartments : Medium:Soil
Remarks: immobile

12.5 Results of PBT and vPvB assessment

Product:

Assessment : Remarks: No data available

Components:

iron sulphate:

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

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

Additional ecological information : Information refers to the main component.
Do not flush into surface water or sanitary sewer system.

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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

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

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

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Full text of H-Statements

H302 : Harmful if swallowed.
H315 : Causes skin irritation.
H319 : Causes serious eye irritation.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Eye Irrit. : Eye irritation
Skin Irrit. : Skin irritation

(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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