

Safety Data Sheet
according 1907/2006/EC (REACH), 2015/830/EU

TrikoLogic S

Date : 01/04/2013

Version No. 3

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1 SECTION 1: IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/ UNDERTAKING

Product identifier

1.1 A. Product name: **TRIKOLOGIC S**

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

Relevant identified uses of the substance or mixture:

TrikoLogic is a soil and plant auxiliary substance in compliance with European Regulation 2008/113/EC on organic farming. It improves the health and resistance of plants and strengthens root development.

Uses advised against:

Any use not specified in this section or in section 7.3

Use Descriptor System (REACH): not applicable

1.3 Details of the supplier of the safety data sheet

Supplier identification	Terra Aquatica Sarl (GHE)
Address	Route de Lecture, 32500 Fleurance
Phone number	+33 (0)5 62 06 08 30
E-mail address	info@eurohydro.com

1.4 Emergency telephone number

Medical services/ emergency services	15
Fire and rescue services	18
Police	17
EU Emergency call line	112
Toxicological Information Centre ORFILA (INRS)	01 45 41 59 59
Toxicological Information Centre South West	05 61 77 74 47

2 SECTION 2 : HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Reg. 1272/2008/CLP In accordance with Regulation No. 1272/2008 (CLP), the product is not considered dangerous.

Additional information :

Hazards for humans	None
Environmental hazards	None
Physico-chemical hazards	None
Other hazards	None

Labelling elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

2.2	Hazard pictograms	None
	Signal word	None
	Hazardous substances to be indicated on the label	None
	Hazard statements H:	None
	Precautionary statements P:	Phrases P P102 Keep out of reach of children
2.3	Other hazards	
	Reg. 1272/2008/CLP	None

3 SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1	Substances	Non applicable
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3.2	Mixtures Name	TrikoLogic S
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TrikoLogic S is a biological inoculant based on natural fungal spores *Streptomyces nigrescens* and *Trichoderma harzianum* and an inert (confidential) carrier.

TrikoLogic S is a biological inoculant (fungus), used to control pathogenic fungi. It improves the health and resistance of plants and strengthens root development.

4 SECTION 4 : FIRST AID MEASURES

No known incidents of damage to persons who have used this product.

However, in case of doubt or if symptoms persist, seek medical attention. Do not give anything by mouth to an unconscious person. The general measures described below should be adopted.

4.1	Description of first aid measures	
	Following eye contact	Immediately flush eyes, including under the eyelids, with plenty of clean, clear water. Check if the victim is wearing contact lenses and if so, remove them. Consult a doctor if irritation appears or persists.
	Following skin contact	Non-irritating. Wash thoroughly with soap and water.
	Following ingestion	Do not induce vomiting. Rinse the mouth with water. If a person has swallowed this product and is conscious, give small amounts of water to drink. Call a doctor if adverse health effects persist or worsen.
	Following inhalation	Rinse nose with fresh water. In case of breathing difficulties, consult a doctor as soon as possible.
	Self-protection of the first aider	Depending on the first aid context, wear appropriate protective equipment including a mask or filtered respirator. Always wear protective gloves and a resuscitation mask in case of artificial respiration. Wash hands thoroughly after first aid.
	Other information	For further details of first aid administration, including but not limited to more serious health effects, the doctor may consult the Toxicological Information Centre, hotline:

see section 1.4

4.2	Most important symptoms and effects, both acute and delayed	Potential acute health effects: No known effect
		Signs/symptoms of overexposure: No specific data
4.3	Indication of any immediate medical attention and special treatment needed	No data available

5 SECTION 5 : FIREFIGHTING MEASURES

	Extinguishing media	The product is not flammable. Suitable extinguishing media: In the event of surrounding fire or continued combustion, caused by improper handling, storage or use, the following extinguishing media may be used: carbon dioxide (CO ₂), foam, chemical powders, and in the event of a widespread fire, also water spray. Inappropriate extinguishing media: In case of fire, do not use: Water jet
5.1		
	Special hazards arising from the substance or mixture	Given its flammability characteristics, the product does not present a fire risk under normal storage, handling and use conditions. A fire in the surrounding area will often produce thick black smoke. Exposure to compositional products may pose health risks. Do not breathe the fumes.
5.2		
	Advice for firefighters	<u>Protective actions to be taken when fighting fires</u> Quickly isolate the area by evacuating all persons from the area in the event of a fire. Do not take any action involving personal risk or in the absence of adequate training. Keep containers away from fire if it can be done without risk. Use water or spray to keep containers exposed to fire cool.
5.3		
	Other information	<u>Appropriate protective equipment</u> The product is not combustible. In the event of a fire in the surrounding area, appropriate extinguishing media and protective equipment may be used for the other materials present (full protective clothing and personal respiratory equipment), in accordance with EN469 for a basic level of protection against chemical incidents. Have a minimum of emergency facilities or intervention elements (fire blankets, medicine kit, etc.) in accordance with Directive 89/654/EC. Additional provisions: Respond in accordance with the Internal Emergency Plan and the Fact Sheets on Accident and Other Emergency Response. Remove all sources of ignition. In case of fire, refrigerate containers and storage tanks for products that may ignite and explode as a result of high temperatures. Avoid spilling products used to extinguish the fire in the aquatic environment.
5.4		

6 SECTION 6 : ACCIDENTAL RELEASE MESURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Personal precautions: Avoid dust generation, ensure adequate ventilation and respiratory protection (see section 8). Avoid contact with skin and eyes. Do not eat, drink or smoke.

For emergency responders Emergency responders will be equipped with personal protective equipment appropriate to the nature of the hazard.
(See section 8).

Environmental precautions

Avoid contamination of sewers, surface water and groundwater. If this happens, inform the competent authorities.

6.2

Methods and material for containment and cleaning up

6.3

For containment: Sewer coverage

For cleaning up: Collect the spilled product by mechanical means and remove any residues by water jets. Provide adequate ventilation at the location of the spill. The disposal of the contaminated material must be carried out in accordance with the provisions of point 13.

Reference to other sections

Collect the remains in an identified container: see point 13 for disposal.

6.4

Personal protective equipment: see section 8

Withdrawal considerations: see section 13.

See section 1 for emergency contact information.

7 SECTION 7 : HANDLING AND STORAGE

Precautions for safe handling

Avoid the formation of suspended particles and the dispersion of the product in the air.

7.1

Use adequate ventilation in areas where suspended particles develop.

Keep away from flames and sparks. Do not smoke. Keep away from heat sources and other sources of fire.

Do not eat, drink or smoke in work areas.

Wash hands after each use.

Conditions for safe storage, including any incompatibilities

Ensure adequate local ventilation or extraction.

7.2

Store in a cool, dry place. Keep the container tightly closed in a dry and well-ventilated place.

Close containers before and after each use to avoid sources of moisture or heat.

Store in areas with impermeable pavement.

Avoid contact with strong oxidizing agents.

Specific end use(s)

No specific end uses.

7.3

Good practices: keep in closed containers. Close containers before and after each use to avoid sources of moisture or heat. Store in areas with waterproof pavement.

8 SECTION 8 : EXHIBITION CONTROLS/INDIVIDUAL PROTECTION

8.1	Control parameters	Not applicable
		Respect good industrial hygiene practices.
8.2	Exposure controls	
	Appropriate engineering controls	No particular control
	Individual protection measures, such as personal protective equipment	Use individual protections placed on the market in accordance with the provisions of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016. Personal protective equipment must be adapted to the risk, kept clean and properly maintained in accordance with the provisions of the Labour Code.
	Eye/face protection	It is not necessary to wear safety glasses, but it is possible to wear glasses that comply with the NF EN166 standard before handling any products.
	Skin protection	Hands : Not required but it is possible to wear safety gloves. Others : Not required
	Respiratory protection	Ensure adequate ventilation, especially in enclosed areas.
	Body protection	Not required
	Environmental exposure controls	No protective measures.

9 SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Physical state: Solid (powder) Color: White, whitish
Odour	Slight smell of rich soil.
pH	8.3
Melting point	Not applicable
Freezing point	Not determined
Initial boiling point and boiling range	Not determined
Flash point	Not determined
Evaporation rate	Not applicable
Flammability (solid, gas)	Non inflammable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density	5.5
Solubility(ies) 20°C	Entirely soluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature	Not determined
Not determined	Not determined
Viscosity	Not determined
Explosive properties	Non applicable
Oxidising properties	Not determined
Refraction index	Not determined

Rotary power Not determined

10 SECTION 10 : STABILITY AND REACTIVITY

10.1	Reactivity	No particular risk of reaction with other materials under normal conditions of use.
10.2	Chemical stability	TrikoLogic S is stable at room temperature in closed packages and under normal storage and handling conditions.
10.3	Possibility of hazardous reactions	No risk of dangerous reactions under normal use and storage conditions.
10.4	Conditions to avoid	Prolonged exposure to temperatures above 30°C. Storage in a damp place.
10.5	Incompatible materials	Any substance acting on organic materials, fungicides and strong acids.
10.6	Hazardous decomposition products	None known

11 SECTION 11 : TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

a) acute toxicity;	(a) Rat, LD50 >5.05 mg/kg body weight, practically non-toxic
(b) skin corrosion/irritation;	b) Rabbit, no irritation/corrosion was observed.
(c) serious eye damage/irritation;	(c) Rabbit, no eye damage was observed.
(d) respiratory or skin sensitisation;	(d) Guinea pig, buehler test: sensitizer.
(e) germ cell mutagenicity;	(e) Non-observed
(f) carcinogenicity;	(f) Non-observed
(g) reproductive toxicity;	(g) Non-observed
(h) STOT-single exposure;	(h) Non-observed
(i) STOT-repeated exposure;	(i) Non-observed
(j) aspiration hazard	(j) Non-observed
Information on likely exposure pathways	Ingestion: Slight irritation possible. No known significant effects or critical hazards. Inhalation: Nasal irritation possible. No known significant effects or critical hazards. Skin Exposure: No known significant effects or critical hazards. Eye exposure: Slight irritation. No known significant effects or critical hazards.
Symptoms related to the physical, chemical and toxicological characteristics	No known symptoms
Delayed and immediate effects as well as chronic effects from short- and long-term exposure	No known effect
Interactive effects	No data
Absence of specific data	No data
Mixtures	No data
Mixture versus substance information	Mixture not containing substances subject to registration. No known adverse effects or symptoms resulting from exposure to the mixture or its components.
Other information	Comply with good industrial hygiene practices

12 SECTION 12 : ECOLOGICAL INFORMATION

12.1	Toxicity	Not applicable. The active ingredient is naturally occurring and practically non-toxic, non-allergenic and non-pathogenic to fish, non-target insects, non-target plants and freshwater invertebrates.
12.2	Persistence and degradability	Not applicable
12.3	Bioaccumulative potential	Not applicable
12.4	Mobility in soil	Not applicable
12.5	Results of PBT and vPvB assessment	Not applicable
12.6	Other adverse effects	No data

13 SECTION 13 : DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods	Product : Remains of the product may be spread in the field or composted in small quantities. Packaging: Empty packaging can be disposed of in household waste or in recycling bins.
	Waste codes / waste designations according to LoW:	Not applicable

14 SECTION 14 : TRANSPORT INFORMATION

Non-hazardous transport. In the event of an accident and product spillage, proceed as described in point 6

14.1	UN number	Non-hazardous transport
14.2	UN proper shipping name	Non-hazardous transport
14.3	Transport hazard class(es)	Non-hazardous transport
	ADR	Non-hazardous transport
	IMDG	Non-hazardous transport
	OACI/IATA	
14.4	Packing group	Non-hazardous transport
14.5	Environmental hazards	Non-hazardous transport
14.6	Special precautions for user	Non-hazardous transport
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Non applicable/ Non-hazardous transport

15 SECTION 15 :REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	
	Reg. 1272/2008/CE	The product does not contain substances that can be classified as carcinogenic. 1 or 2 according to Reg.1272/2008/EC and subsequent updates.

Reg. 830/2015/CE (REACH) Not applicable

Special hazards To our knowledge, none.

15.2 Chemical safety assessment Evaluation not carried out / not applicable

16 SECTION 16 : OTHER INFORMATION

Abbreviations and acronyms:

ADR: European Agreement on the Transport of Dangerous Goods by Road

CASE NUMBER: Chemical Abstract Service number

EC50: Concentration that gives effect to 50% of the test population.

EC NUMBER: Identification number in ESIS (European Archives of Existing Substances)

CLP: EC Regulation 1272/2008

DNEL: Level calculated without effect

EmS: Emergency calendar

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA DGR: International Air Transport Association Dangerous Goods Regulations

IC50: Immobilizing concentration of 50% of the test population.

IMDG: International Maritime Code for the Transport of Dangerous Goods

IMO: International Maritime Organization

INDEX NUMBER: Identification number VI Annex of the CLP

LC50: Lethal concentration 50% lethal concentration

LD50: Lethal dose 50%.

LEP: Occupational exposure level

PBT: Persistent, bioaccumulative and toxic according to REACH

PEC: Predicted environmental concentration

PEL: Predictable exposure level

PNEC: Predictable concentration without effects

REACH: EC Regulation 1907/2006

RID: Regulations concerning the International Transport of Dangerous Goods by Rail

TLV: Threshold limit value

PLAFUND TLV: Concentration that must not be exceeded at any time during the working exposure

TWA STEL: Short-term exposure limit

TWA: Weighted Average Exposure Limit

VOC: Volatile organic compound

vPvB: Very persistent and bioaccumulative according to REACH

Key literature references and sources for data

Regulation (EC) 1907/2006 of the European Parliament (REACH)

Regulation (EC) 1272/2008 of the European Parliament (CLP)

Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)

Regulation (EC) 453/2010 of the European Parliament Regulation (EC) 286/2011 of the European Parliament (II Atp. CLP)

16.2 The Merck index. Ed. 10 Handling and chemical safety

Niosh - Register of toxic effects of chemical substances

INRS - Toxicological Data Sheet

Patty - Industrial hygiene and toxicology

16.3	Indication of changes:	Version: 3 Modification: updated to comply with Euroepan standard, name change (Subculture becomes TrikoLogic S)
16.4	Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]: Note	Non Applicable Product that can be used in organic farming in accordance with EEC regulation 2008/113/. The indicated mixture does not require an MSDS according to REACH requirements. Form prepared for information purposes. This safety data sheet complies with the requirements established by Regulation 830/2015/EU. It does not in any way exempt the user from knowing and applying all the documents that govern his activity. The user will take under his responsibility the precautions related to the specific use of the product. All the regulatory requirements mentioned are intended simply to assist the recipient in fulfilling their responsibilities. This list should not be considered exhaustive. This sheet supplements the technical operating instructions but does not replace them. The information contained herein is based on our knowledge of the product (manufacturer's active ingredient safety data sheet and other bibliographic data) on the date indicated. They are given in good faith. In addition, the user's attention is drawn to the possible risks involved when a product is used for purposes other than those for which it was created. The addressee must ensure that he is not responsible for anything else according to texts other than those mentioned. It is the responsibility of our customers to comply with the regulations in force. The information describes the safety aspects of the product. They are not intended to guarantee specific properties.