

SAFETY DATA SHEET

ENERGEN GERMIN / ENERGEN GERMIN FH

according to EC Regulation No. 1907/2006 (REACH),
and Commission Regulation (EU) 2015/830

issue date: 2018-05-02
revision date: --
version: 1.0

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

1.1 Product identifier

Chemical name: **ENERGEN GERMIN / ENERGEN GERMIN FH**

Producer: **EGT system spol. s r.o.**
Address: **Na Kopci 38, 74781 Otice**

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

Intended use: Microelements fertilizer.

Uses advised against: All other than recommended uses.

1.3 Details of the supplier of the safety data sheet

Supplier of SDS: EGT system spol. s r.o.
Address: Na Kopci 38, 74781 Otice
Identification No.: 27845249
Tel: +420 777 285 386
www:
Responsible person: Consulteco s.r.o., Táborská 922, 293 01 Mladá Boleslav, tel. 777331771, ing. Radka Vokurková

1.4 Emergency telephone number

National Poisons Information Service (Birmingham Unit)
City Hospital, Dudley Rd, Birmingham B187QH, United Kingdom
Fax: +44 121 507 55 88, Emergency telephone: 844 892 0111
E-mail: mail@npis.org

Section 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to the EC Regulation No. 1272/2008 (CLP): The mixture is not classified to be hazardous.

2.2 Label elements

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

Hazard pictogram(s): None.

Signal word: None.

Contain: ---

Hazard statement(s): None.

Precautionary statement(s): None.

Supplemental (hazard) information: EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
EUH210 Safety data sheet available on request.

2.3 Other hazards:

see section 12.5

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Section 3: Composition / information on ingredients

3.1 Substances

3.2 Mixtures

Aqueous solution of humic substances, trace elements and other additives.

Name of the compound	Content (%)	CAS No. EINECS No. Index No. REACH No.	Classification according to Regulation (EC) No 1278/2008 (CLP)	
Ethanol	≤ 1	64-17-5	Eye Irrit. 2	H319
		200-578-6 603-002-00-5 01-2119457610-43-0000	SCL: C > 50% Flam. Liq. 2	H225
Anthranilic acid	≤ 0,3	118-92-3 204-287-5 -	Eye Dam. 1	H318
		01-2119943045-43-0000		
(ethylenedioxy)dimethanol	≤ 0,1	3586-55-8 222-720-6 -	Acute Tox. 4 Eye Dam. 1 Skin Irrit. 2	H302 H318 H315
		01-2120733841-56-0000		

For full text of H-statements see SECTION 16

Section 4: First aid measures

4.1 Description of first aid measures

General advice:

In any case, avoid chaotic behaviour. In need of medical treatment always bring the original container with the label or safety data sheet.

Inhalation:

Interrupt exposure. Move person into fresh air, keep warm and at rest.

Skin contact:

Remove contaminated clothing and shoes. Wash contaminated skin with soap and water. If irritation occurs, seek medical attention.

Eye contact:

Remove contact lenses if present and start to rinse with clean water, the affected eye wide open, from the inner corner to the outer and also under the eyelids, for at least 15 minutes. If irritation persists, seek medical attention.

Ingestion:

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person or having convulsions.

Protection of first aiders:

It is necessary to ensure the safety of the rescuer and the rescued too.

4.2 Most important symptoms and effects, both acute and delayed

May cause eye irritation to more sensitive people.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

The product is not flammable. Foam, powder, CO2, water mist.

Unsuitable extinguishing media:

Not known.

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5.2 Special hazards arising from the substance or mixture

Combustion products and hazardous gases: smoke, carbon monoxide, carbon dioxide.

5.3 Advice for firefighters

Rescue teams exposed to smoke or gases must be equipped with means for eye and respiratory protection. When using in enclosed areas, an insulating respirator must be used. Cool containers exposed to fire with water mist. Segregate firefighting water separately and prevent it to enter water and soil.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, replace contaminated clothing. Avoid contact with skin and eyes, soiling of clothing and footwear. Ensure ventilation of the affected area. All persons not involved in rescue work should be taken to a safe distance.

6.2 Environmental precautions

Prevent leakage into the environment, avoid ingress into surface water and sewers and soil.

6.3 Methods and material for containment and cleaning up

In case of leakage, locate and, if possible, drain the product. Residuals or smaller amounts to be absorbed in a suitable sorbent (universal sorbent, diatomaceous earth, earth, sand) and placed in suitable labelled containers and handed over to disposal in accordance with applicable regulations. By biodegradation test, this product can be applied to fields or other agricultural areas.

6.4 Reference to other sections

see section 7,8 and 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Use appropriate PPE. Use only in well-ventilated areas with fresh air intake or with adequate ventilation. Do not eat, drink, smoke. After working, wash your hands. Observe statutory regulations on occupational safety and health.

7.2 Conditions for safe storage, including any incompatibilities

Store in well sealed original containers in dry, cool and well-ventilated areas. Store in a vertical position to prevent leakage and dripping. Keep away from food, feed and medication.

7.3 Specific end use(s)

See section 1.2

Section 8: Exposure controls/personal protection

8.1 Control parameters

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Exposure limits: The national occupational exposure limit values that correspond to Union occupational exposure limit values in accordance with Directive 98/24/EC, including any notations as referred to in Article 2(3) of Commission Decision 2014/113/EU

Substance	CAS No.	PEL (mg/m ³)	NPK-P (mg/m ³)	Note
Ethanol	64-17-5	1000	3000	

DNELs:

Ethanol (CAS: 64-17-5)

Workers			General population		
Exposure	Route	Value	Exposure	Route	Value
Systemic chronic	Dermal	343 mg/kg bw/day	Systemic chronic	Dermal	206 mg/kg bw/day
Systemic chronic	Inhalation	950 mg/m ³	Systemic chronic	Inhalation	114 mg/m ³
			Systemic chronic	Oral	87 mg/kg bw/day

PNECs:

Ethanol (CAS: 64-17-5)

Component of the environment / organisms		PNEC	Value
Inland	Freshwater	PNEC water, fresh.	0,96 mg/L
	Freshwater - Intermittent releases	PNEC water, fresh.	2,75 mg/L
	Sediment (freshwater)	PNEC sed., fresh.	3,6 mg/kg sediment dw
	Soil	PNEC soil	0,63 mg/kg soil dw
	Microorganisms in sewage treatment	PNEC sew. treat.	580 mg/L
Sea	Marine water	PNEC water, mar.	0,79 mg/L
	Sediment (marine water)	PNEC sed., mar.	2,9 mg/kg sediment dw
	Predators	PNEC oral., pred.	0,38 g/kg food

DNELs and PNECs values for the other components of the mixture haven't been determined.

8.2 Exposure controls

Appropriate engineering controls: Technical measures appropriate working procedures have priority over personal protective equipment.
Observe the usual hygiene principles. Do not eat, drink, smoke. Before breaks and after work wash your hands with warm water and soap.

Individual protection measures

Respiratory protection: Not needed. In case of dust production use mas with suitable mask / filter (type ABEK - EN14387 - anti-gas and combined filters; type P - EN 143 - filter against particles; type FFP3/FFP2 - EN 149 - half mask against particles; EN 142 - mouthpieces).

Hand protection: Protective working gloves (EN 374-1, min. Class 2). Observe the manufacturer's exact instructions, including the time of use. Replace damaged gloves.

Eye / face protection: Safety glasses with side-plates or facial shields (EN 166).

Skin protection: Working clothes (EN 340) and footwear (EN 347). Protective clothing against liquid chemicals (EN 14605).

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Thermal hazards: None.
Environmental exposure controls: Prevent from leakage into the environment.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Liquid
Colour: No data available.
Odour: No data available.
Odour threshold: No data available.
pH : 8,5
Melting point/freezing point (°C): No data available.
Initial boiling point and boiling range (°C): 90-100
Flash point (°C): No data available.
Evaporation rate: No data available.
Flammability (solid, gas): Not flammable.
Upper/lower flammability or explosive limits: Not explosive.
Vapour pressure (20 °C): No data available.
Vapour pressure (50 °C): No data available.
Vapour density: No data available.
Relative density (g/cm³, 20 °C): 1,2
Solubility(ies) (20 °C): No data available.
Partition coefficient: n-octanol/water: No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity (20 °C): No data available.
Refractive index (20 °C): No data available.
Oxidising properties: No data available.
Explosive properties: No data available.

9.2 Other information

VOC (%): No data available.
Dry matter content: 20-40%
Additional information: --

Section 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable at normal conditions.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

Avoid temperatures under 0°C.

10.5 Incompatible materials

Strong acids and bases.

10.6 Hazardous decomposition products

Hazardous decomposition products do not occur under normal conditions.

Section 11: Toxicological information

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11.1 Information on toxicological effects

Toxicity of the mixture was not tested.

Individual components

Ethanol (CAS: 64-17-5)

Acute toxicity:

Test type	Results	Exposure	Tested organisms
OECD 401, key study	10470 mg/kg bw [LD50]	oral	rat
OECD 403, key study	116,9 mg/L air [LC50]	inhalation	rat
OECD 403, key study	>60 000 ppm [LC50]	inhalation	mouse

Serious eye damage / irritation:

Test type	Results	Exposure	Tested organisms
OECD 405, key study	Category 2A (irritating to eyes)	Eye	rabbit

Skin corrosion / irritation:

Test type	Results	Exposure	Tested organisms
OECD 404, key study	not irritating	Skin	rabbit

Respiratory or skin sensitisation:

Test type	Results	Exposure	Tested organisms
OECD 406, key study	not sensitising	Skin	guinea pig

STOT - single exposure:

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure:

Test type	Results	Exposure	Tested organisms
OECD 408, key study	10 ml/kg of mixture containing 16,25% ethanol [NOAEL] 4 ml/Kg of pure ethanol [LOAEL]	oral	rat

Carcinogenicity:

Test type	Results	Exposure	Tested organisms
OECD 453, key study	>= 1,3 mg/L air [NOAEC]	inhalation: vapour	rat

Germ cell mutagenicity:

Test type	Results	Exposure	Tested organisms
OECD 478, key study	ambiguous	oral: gavage	mouse

Reproductive toxicity:

Test type	Results	Exposure	Tested organisms
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OECD 416, key study	15 % in drinking water [NOAEL]	oral: drinking water	mouse
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Aspiration hazard:

Test type	Results	Exposure	Tested organisms
	No data available.		

Anthranilic acid (CAS: 118-92-3)

Acute toxicity:

Test type	Results	Exposure	Tested organisms
key study	4549 mg/kg bw [LD50]	oral	rat

Serious eye damage / irritation:

Test type	Results	Exposure	Tested organisms
OECD 405, key study	Category 1 (irreversible effects on the eye)	Eye	rabbit

Skin corrosion / irritation:

Test type	Results	Exposure	Tested organisms
	No data available.		

Respiratory or skin sensitisation:

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - single exposure:

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure:

Test type	Results	Exposure	Tested organisms
	No data available.		

Carcinogenicity:

Test type	Results	Exposure	Tested organisms
	No data available.		

Germ cell mutagenicity:

Test type	Results	Exposure	Tested organisms
OECD 474, key study	negative	oral: gavage	mouse

Reproductive toxicity:

Test type	Results	Exposure	Tested organisms
	No data available.		

Aspiration hazard:

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Test type	Results	Exposure	Tested organisms
	No data available.		

Section 12: Ecological information

12.1 Toxicity

Ethanol (CAS: 64-17-5)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish:	<i>Lepomis macrochirus</i>	15400 mg/L [LC50] / 96 h	
Acute toxicity to invertebrates	<i>Daphnia magna</i>	> 10000 mg/L [EC50] / 48 h	
Acute toxicity to aquatic algae:	<i>Pseudokirchneriella subcapitata</i>	ca. 22000 mg/L [EC50] / 96 h	OECD 201

Anthranilic acid (CAS: 118-92-3)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish:	<i>Leuciscus idus</i>	100 mg/L [LC0] / 96 h	
Acute toxicity to invertebrates	<i>Daphnia magna</i>	76 - <= 94 mg/L [EC50] / 48 h	
Acute toxicity to aquatic algae:	<i>Desmodesmus subspicatus</i>	21,1 mg/L [EC50] / 96 h	

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII.

12.6 Other adverse effects

No data available.

Section 13: Disposal considerations

13.1 Waste treatment methods

Catalogue No. of mixture waste: 02 01 09 - Agrochemical waste other than those mentioned in 02 01 08

Waste codes / waste designations according to LoW: 15 01 02 - Plastic packaging

Recommended procedure for mixture waste disposal: After dilution, it is possible to spray it on the compost, on the field after harvesting the grain or on the manure.

Recommended procedure for packaging disposal: Empty packs of the product with plenty of water to achieve the minimum recommended dilution for application. Apply the solution obtained exclusively on the treated plot. Empty containers can be returned to the manufacturer for re-use or deposited in separate waste, or can be handed over to persons authorized to dispose of hazardous waste.

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Physical / chemical properties that may No data available.

affect waste treatment method:

Sewage disposal-relevant information: Residues of an unused product, which is not used as a product, as well as packaging contaminated with unusable, degraded product, is classified as hazardous waste, must not be discharged into sewers, waterways and drinking water sources and must be handed over to places for this purpose designated by the state administration authorities.

Other disposal recommendations: Dispose in accordance with the valid legislation.

Section 14: Transport information

It's not dangerous goods according to ADR.

	Type of transport	ADR/RID	IMDG	ICAO / IATA
14.1	UN number	no	no	no
14.2	UN proper shipping name	no	no	no
14.3	Transport hazard class(es)	no	no	no
	Classification code:	no	no	no
	Hazard identification No.:	no	no	no
	Labels:	no	no	no
14.4	Packaging group	no	no	no

14.5 Environmental hazards

None.

14.6 Special precautions for user

Limited and excepted quantities: None.

Transport category: None.

Tunnel restriction code: None.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No.

Section 15: Regulatory information

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

all as amended and implementing regulations including:

Regulation (EC) No 1272/2008

Regulation (EC) No 1907/2006

Regulation (EC) No 2003/2003 relating to fertilisers

Veterinary approval number CZ 72710186

15.2 Chemical safety assessment

Has not been done. Assessment of individual registered components of the mixture was carried out as part of the registration process substances.

Section 16: Other information

Complete text of Hazard statements from section 3

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H-statements

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

Abbreviations and acronyms:

PBT	Persistent, bioaccumulative and toxic
vPvB	Very persistent and very bioaccumulative
VOC	Volatile organic substances content
CAS	Chemical Abstracts Service
EINECS	European Inventory of Existing Commercial chemical Substances
LD50	Lethal dose for 50%
LDO	Lethal dose for 0%
LC50	Lethal concentration for 50%
EC50	Effect concentration for 50%
LC0	Lethal concentration for 0%
NOEL	No observable effect level
NOAEL	No observable adverse effect level
NOAEC	No observable adverse effect concentration.
LOEL	Lowest observable effect level.
LOAEL	Lowest observable adverse effect level.
LOEC	Lowest observable effect concentration.
LOAEC	Lowest observable adverse effect concentration.
NEL	No effect level.
DNEL	Derived no-effect level
PNEC	Predicted no-effect concentration
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit

Indication of changes:

first edition.

This first edition is in accordance with Regulation (EC) no. 1272/2008 (CLP).

Key literature references and sources for data:

Information from the producer

Material safety data sheets of the components

Database of registered substances and information about them from ECHA

Applicable legislation related to the contents of the safety data sheet.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008: calculation method.

Instructions for training:

Workers who come into contact with hazardous substances/mixtures must be in the necessary extent informed about the effects of these substances/mixtures, about the ways how to deal with them.

Workers must be in the necessary extent informed with protective measures, the principles of first aid, with the necessary sanitation practices and procedures for liquidation of failures and accidents.

A person dealing with this chemical product must be familiar with the safety rules and the data given in the MSDS.

Persons transporting hazardous substances must be familiar with the guidelines for emergency response in accordance with the regulations of ADR / RID.

Other information:

The above information describes the conditions for safe handling and corresponds with current knowledge of the manufacturer.

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The manufacturer bears responsibility for the above described properties of the product when used according to specifications.

The user is responsible for determining suitability of product for specific purposes and adapt security measures if such application is contrary to the manufacturer's recommendations.