according to EC Regulation No. 1907/2006 (REACH),

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

1.1 **Product identifier** Chemical name: **ENERGEN STIMUL / ENERGEN STIMUL PLUS / ENERGEN** FRUKTUS / ENERGEN FRUKTUS PLUS / ENERGEN FOLIAR / ENERGEN FOLIAR PLUS EGT system spol. s r.o. Producer: Na Kopci 38, 74781 Otice Address: 1.2 Relevant identified uses of the substance or mixture and uses advised against Intended use: Plant nutrition. To support the growth of field crops, forest cultures, fruit and special crops. 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 Emergency telephone number 1.4 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 The mixture is not classified to be hazardous. Regulation No. 1272/2008 (CLP):

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:

according to EC Regulation No. 1907/2006 (REACH),

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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 Regulatior 1278/200	n (EC) No
Ethanol	≤ 2,5	64-17-5	Eye Irrit. 2	H319
		200-578-6	SCL: C > 50%	
		603-002-00-5	Flam. Liq. 2	H225
		01-2119457610-43-0000		
Succinic-acid	≤ 0,2	110-15-6	Eye Dam. 1	H318
		203-740-4		
		-		
		01-2119896114-34-0000		
Anthranilic acid	≤ 0,2	118-92-3	Eye Dam. 1	H318
		204-287-5		
		-		
		01-2119943045-43-0000		
Indol	≤ 0,2	120-72-9	Acute Tox. 4	H302
		204-420-7	Acute Tox. 3	H311
		-		
		-		
(ethylendioxy)dimethanol	≤ 0,15	3586-55-8	Acute Tox. 4	H302
		222-720-6	Eye Dam. 1	H318
		-	Skin Irrit. 2	H315
		-		

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 offects	hath asute and delayed

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.

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Section 5: Firefighting measures

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d soil.

Section 6: Accidental release measures

6.1	Personal precautions, protective equi	pment 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 containmer	nt 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

Avoid contact with skin and eyes. Use appropriate PPE. Use only in wellventilated 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.

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7.3 Specific end use(s)

See section 1.2

Section 8: Exposure controls/personal protection

8.1 Control parameters

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		PEL	NPK-P	Note
Substance		(mg/m³)	(mg/m³)	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/m³	Systemic chronic	Inhalation	114 mg/m³
			Systemic chronic	Oral	87 mg/kg bw/day

Succinic-acid (CAS: 110-15-6)

Workers			General population		
Exposure	Route	Value	Exposure	Route	Value
Systemic	Dormal	71 mg/kg bw/day	Systemic	Dormal	43 mg/kg bw/day
chronic	Dermal	/ I Hig/kg Dw/uay	chronic	Dermal	45 mg/kg bw/day
Systemic	Inhalation	10 mg/m³	Systemic	Inhalation	10 mg/m ³
chronic			chronic		10 mg/m
			Systemic	Oral	43 mg/kg bw/day
			chronic	Ulai	

PNECs:

Ethanol (CAS: 64-17-5)

Compone	nt of the environment / organisms	PNEC	Value	
	Freshwater	PNEC water, fresh.	0,96 mg/L	
	Freshwater - Intermittent releases	PNEC water, fresh.	2,75 mg/L	
Inland	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	
	Marine water	PNEC water, mar.	0,79 mg/L	
Sea	Sediment (marine water)	PNEC sed., mar.	2,9 mg/kg sediment dw	
	Predators	PNEC oral., pred.	0,38 g/kg food	

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Succinic-acid (CAS: 110-15-6)

Compone	nt of the environment / organisms	PNEC	Value
	Freshwater	PNEC water, fresh.	0,1 mg/L
	Freshwater - Intermittent releases	PNEC water, fresh.	1 mg/L
Inland	Sediment (freshwater)	PNEC sed., fresh.	0,079 mg/kg sediment dw
	Soil	PNEC soil	0,018 mg/kg soil dw
	Microorganisms in sewage treatment	PNEC sew. treat.	3 mg/L
600	Marine water	PNEC water, mar.	0,01 mg/L
Sea	Sediment (marine water)	PNEC sed., mar.	0,008 mg/kg sediment dw

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).
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: Colour: Odour: Odour threshold: pH : Melting point/freezing point (°C): Initial boiling point and boiling range (°C):	Liquid No data available. No data available. No data available. 6,5 - 8,0 No data available. 90-100
Flash point (°C): Evaporation rate: Flammability (solid, gas): Upper/lower flammability or explosive limits:	No data available. No data available. Not flammable. Not explosive.
Vapour pressure (20 °C): Vapour pressure (50 °C): Vapour density:	No data available. No data available. No data available.

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	Relative density (g/cm3, 20 °C):	1,2
	Solubility(ies) (20 °C): Partition coefficient: n-octanol/water:	No data available. No data available.
	Auto-ignition temperature: Decomposition temperature: Viscosity (20 °C): Refractive index (20 °C) Oxidising properties: Explosive properties:	No data available. No data available. No data available. No data available. No oxidising properties. No explosive properties.
9.2	Other information VOC (%): Dry matter content:	No data available. 30-40%

Section 10: Stability and reactivity

Additional information:

10.1	Reactivity	
10.2	Chemical stability	No data available.
10.3	Possibility of hazardous reactions	Stable at normal conditions.
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

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

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

Carcinogenicity:

Test type	Results	Exposure	Tested organisms
OECD 453, key study	>= 1,3 mg/L air [NOAEC]	inhalation:	rat
		vapour	14

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
OECD 416, key study	15 % in drinking water [NOAEL]	oral: drinking water	mouse

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
IOECD 405. kev studv	Category 1 (irreversible effects on the eye)	Eye	rabbit

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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:

Test type	Results	Exposure	Tested organisms
	No data available.		

Succinic-acid (CAS: 110-15-6)

Acute toxicity:

Test type	Results	Exposure	Tested organisms
OECD 401, key study	> 6 740 mg /kg [LD50]	oral	rat
OECD 403, key study	> 1,284 mg/L [LC50]	inhalation	rat

Serious eye damage / irritation:

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

Skin corrosion / irritation:

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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, weight of evidence	not sensitising	Skin	guinea pig
OECD 429, weight of evidence	not sensitising	Skin	mouse

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	12500 mg/L drinking	oral	rat
DECD 408, Rey study	water [NOAEL]	oral	rat

Carcinogenicity:

Test type	Results	Exposure	Tested organisms
	No data available.		

Germ cell mutagenicity:

Test type	Results	Exposure	Tested organisms
	No data available.		

Reproductive toxicity:

Test type	Results	Exposure	Tested organisms
	No data available.		

Aspiration hazard:

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	
Aguto toxicity to fich	Lonomic macrochirus	15400 mg/L [LC50] / 96 h	
Acute toxicity to fish:	Lepomis macrochirus	12700 mg/L [EC50] / 96 h	
Acute toxicity to invertebrates	Daphnia magna	> 10000 mg/L [EC50] / 48 h	
Acute toxicity to aquatic algae:	Pseudokirchneriella	ca. 22000 mg/L [EC50] / 96 h	OECD 201
Acute toxicity to aquatic algae.	subcapitata		OECD 201

Anthranilic acid (CAS: 118-92-3)

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

Succinic-acid (CAS: 110-15-6)

Toxicity	Tested organisms	Results	Test type	
Acute toxicity to fish:	Danio rerio	> 100 mg/L [LC50] / 96 h 100 mg/L [NOEC] / 96 h	OECD 203	
Acute toxicity to invertebrates	y to invertebrates Daphnia magna > 100 mg/L [EC50] / 48 h		OECD 202	
Acute toxicity to aquatic algae:	Pseudokirchneriella subcapitata	> 100 mg/L [EC50] / 72 h 100 mg/L [NOEC] / 72 h	OECD 201	

12.2 Persistence and degradability

12.3 Bioaccumulative potential

12.4 Mobility in soil

12.6 Other adverse effects

No data available.

No data available.

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.

Test reports No. 1062/2012 and 1063/2012, prepared by Beekeeping Research Institute 6/2012, prove product safety for bees.

Section 13: Disposal considerations

13.1	Waste treatment methods Catalogue No. of mixture waste: Waste codes / waste designations according to LoW:	02 01 09 - Agrochemical waste other than those mentioned in 02 01 08 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.
	Physical / chemical properties that may affect waste treatment method:	No data available.
	Sewage disposal-relevant information:	Residues of an unused product, which is not used as a product, as well as

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.

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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
с (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

H-statements	;
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H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.

according to EC Regulation No. 1907/2006 (REACH), revision date:

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-	
PBT	Persistent, bioacumulative and toxic
vPvB	Very persistent and very bioacumulative
VOC	Volatile organic substances content
CAS	Chemical Abstracts Service
EINECS	European Inventory of Existing Commercial chemical Substances
LD50	Lethal dose for 50%
LD0	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
	vPvB VOC CAS EINECS LD50 LD0 LC50 EC50 LC0 NOEL NOAEL NOAEL LOEL LOAEL LOAEL LOAEL LOAEL LOAEC NEL DNEL PNEC OEL

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.

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.

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