

Date 2021.03.24.

Hestia Fireplace Ethanol Natural

Site: 1/14

Version nb: 1

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SAFETY DATA SHEET (According to Regulation 1907/2006/EK)



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

1. 1. Product identifier

Product name:

Hestia Fireplace Ethanol Natural

1. 2. Relevant identified uses of the substance or mixture and uses advised against

Industrial use, Professional use, Consumer use Fireplace Ethanol

1. 3. Details of the supplier of the safety data sheet

Manufacturer/ Supplier: AGRÁR- Bioetanol Energiatermelő Kft.
Address: 7200 Dombóvár, Birkamajor
Tel.: 74/565-302 Fax: - Email: info@agrarbioetanol.hu

Distributor: AGRÁR- Bioetanol Energiatermelő Kft.
Address: 7200 Dombóvár, Birkamajor
Tel.: 74/565-302 Fax: - Email: info@agrarbioetanol.hu

Importer/ Distributor: AGRÁR- Bioetanol Energiatermelő Kft.
Address: 7200 Dombóvár, Birkamajor
Tel.: 74/565-302 Fax: - Email: info@agrarbioetanol.hu

Responsible for the Safety Data Sheet: AGRÁR- Bioetanol Energiatermelő Kft.
+36-74/465-203
info@agrarbioetanol.hu

1. 4. Emergency telephone number

EGÉSZSÉGÜGYI TOXIKOLÓGIAI TÁJÉKOZTATÓ SZOLGÁLAT (ETTSZ)
1096 Budapest, Nagyvárad tér 2.
Tel: 06-80-20-11-99 (24 h, for emergency only)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to 1272/2008/EC

Flammable liquid: category 2.; Eye irritation category 2.,
H225-H319

2.2. Label elements

Label elements according to 1272/2008/EC directive

Identity of all substances in Ethanol
the mixture that contribute
to the classification of the
mixture:



GHS02



GHS07

DANGER

Hazard Statements (H- phrases)

H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

Precautionary Statements (P- phrases)



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P102 - Keep out of reach of children.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground and bond container and receiving equipment.

P241 - Use explosion-proof [electrical/ventilating/ lighting/...] equipment.

P242 - Use non-sparking tools.

P243 - Take action to prevent static discharges.

P271 - Use only outdoors or in a wellventilated area.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P370+P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P403+P235 - Store in a wellventilated place. Keep cool.

P501 - Dispose of contents/container in accordance with all local and national regulations

Supplemental hazard information

2.3. Other hazards

Other hazards Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Vapors form explosive mixtures with air,







The full text of H phrases see Section 16 point.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

The product is a mixture, not a substance.

3.2. Mixtures

Product identifiers	Designation and Classification of components	Amount
CAS 64-17-5	Ethanol	93-95 (V/V) %
01-2119457610-43-0147	GHS02 GHS07  	
	Flammable liquid: category 2.; Eye irritation category 2., H225-H319	
CAS 78-93-3	Ethyl methyl ketone	1-1,6 (V/V) %
EK201-159-0 Reach 01-2119457290-43-xxxx	GHS02 GHS07  	
	Flammable liquid: category 2.; STOT SE category 3. Eye irritation category 2., ??? H225-H319-H336	
CAS 67-63-0	Isopropyl alcohol	1-1,6 (V/V) %
01-2119457558-25-xxxx	GHS02 GHS07  	
	Flammable liquid: category 2.; Eye irritation category 2., STOT SE category 3. H225-H319-H336	



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CAS 3734-33-6 Denatonium benzoate

0,001-0,0025 (m/m)%

GHS07



Acute oral tox.: category 4.; Skin corrosion/irritation category 2., Eye irritation category 2., STOT SE category 3.
H302-H315-H319-H335

(You can see full text of H sentences at 16 point.)

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

4.1.1. Inhaling

Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

4.1.2. Eyes

When substance has got into eyes, wash out immediately with plenty of water for at least 15 minutes, remove contact lenses, get medical attention if irritation develops,

4.1.3. Skin

Wash affected skin with plenty of water and soap, remove soiled clothing immediately, if skin symptoms, seek medical advice,

4.1.4. Swallowed

Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If conscious and alert, rinse mouth and drink 2-4 cups of milk or water. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

EYES: Redness. Pain. Burning.

SKIN: Dry skin.

INHALATION: Cough. Headache. Fatigue. Drowsiness.

INGESTION: Burning sensation. Headache. Confusion. Dizziness. Unconsciousness.

Ethanol, may affect the developing fetus in a dose dependent manner.

Chronic ingestion of ethanol may cause liver cirrhosis

4.3. Indication of any immediate medical attention and special treatment needed



Symptomatic treatment

General advice

If you feel unwell, seek medical advice (show the label where possible). Take off all contaminated clothing immediately

SECTION 5: FIREFIGHTING MEASURES

Fire class according to the National Fire Protection Code (54 / 2014. (XII. 5) BM)



Extremely flammable or explosive class

5.1. Extinguishing media

Use water spray, dry chemical, carbon dioxide, or chemical foam;

5.1.1. Unsuitable extinguishing materials

Prohibited level water-jet up the burning substance, because steamexplosion possible,

5.2. Special hazards arising from the substance or mixture



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Highly flammable. Fire may produce hazardous combustion gases or vapors. The vapours from nearly all flammable and combustible liquids are heavier than air. The vapour trail can spread far from the liquid. If this vapour trail contacts an ignition source, the fire produced can flash back (or travel back) to the liquid. The vapour mixes well with air, explosive mixtures are easily formed. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. In a fire or if heated, a pressure increase will occur and the container may burst.

5.3. Advice for firefighters

Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. Dike fire-control water for containment and recovery. Keep adjacent containers cool by spraying with water

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with the material. Do not breathe vapor or aerosols. Remove all ignition sources. Ensure adequate ventilation. Evacuate the danger area follow the procedures for emergency situations, consult an expert. Stop leak if without risk.

6.2. Environmental precautions

For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway (Explosion hazard). Do not allow to enter drains, sewers or watercourses. Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.

6.3. Methods and material for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). After gathering wash thoroughly the substance place.

6.4. Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protective equipment. See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Technical precautions

Ensure good ventilation/exhaustion at the workplace. Keep away from heat, sparks, open flames, hot surfaces. See specified in chapter 8. Material can accumulate static charges which may cause an electrical spark (ignition source). Ground/bond container and receiving equipment.. Use explosion-proof electrical/ventilating/lighting/...Use only non-sparking tools. Take precautionary measures against static discharge.

7.1.2. Safe handling guidance

Wear appropriate protective clothing and equipment. Ensure adequate ventilation. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Take precautionary measures against static discharge.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures/storage conditions

Keep only in the original container in a cool, dry, wellventilated place away from ignition sources, heat or flame. Store protect from direct sunlight. Protect from Electrostatic charge must during transportation and storage.

7.2.2. Incompatible products

Keep away from heat, flammable substances, oxidants, acids, alkalis and peroxides

7.2.3. Packaging materials

Keep in original, close packing.

7.3. Specific end use(s)

Section 1.2. Partially mentioned partial use, no other special use.



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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

5/2020. (II. 6.) ITM decree:

Component name:	AK value (mg/m ³)	CK value (mg/m ³)	MK value (mg/m ³)
1. Ethanol	1900	3800	
2. Ethyl methyl ketone	600	900	
3. Isopropyl alcohol	500	1000	
4. Denatonium benzoate	nincs hozzárendelve	nincs hozzárendelve	

Other

Ethyl alcohol
 DNEL Short term
 Inhalation 1900 mg / m³ Workers Local
 DNEL Long Term Dermal 343 mg / kg Workers Systemic
 DNEL Long Term Inhalation 950 mg / m³ Workers Systemic
 DNEL Short term Inhalation 950 mg / m³ General population Local
 DNEL Long Term Dermal 206 mg / kg General population Systemic
 DNEL Long Term Inhalation 114 mg / m³ General population Systemic
 DNEL Long Term Oral 87 mg / kg General population Systemic

PNECs

Fresh water 0.96 mg/L
 Freshwater sediments 3.6 mg/kg sediment dw
 Marine water 0.79 mg/L
 Marine sediments No hazard identified
 Food chain No hazard identified
 Microorganisms in sewage treatment 580 mg/L
 Soil (agricultural) 0.63 mg/kg soil dw
 Air No hazard identified

Isopropyl alcohol: Characteristic property: b) Also absorbed through the skin;
 (i) an irritant which irritates the skin, mucous membranes, eyes or all three
 Methyl ethyl ketone: Characteristic property: b - is also absorbed through the skin.
 (i) an irritant which irritates the skin, mucous membranes, eyes or all three.
 ÁK correction group: N

8.2. Exposure controls

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. When using do not eat or smoke. Observe the usual precautions when handling chemicals. Adequate ventilation should be provided so that exposure limits are not exceeded. Use explosion-proof ventilation equipment.

8.2.1. Appropriate engineering controls

8.2.2. Individual protection measures, such as personal protective equipment

8.2.2. a) Eye/face protection



Tightly closing protective goggles (EN 166), eyewash bottle with clean water,

8.2.2. b) Skin protection

Chemical resistant protective clothing should be used according to specifications.

8.2.2. b)i. Hand protection



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Wear suitable protective gloves and protective clothing. Nitrile or butyl rubber with at least 0.4 mm thickness (according to EN 374 Part 3: Level 6 => 480 min.). Always seek advice from glove suppliers. The durability of the recommended protective gloves can be shorter than the permeation times found in the EN 374 due to different influences (e.g. temperature). Breakthrough times and swelling properties of the material must be taken into consideration. Highly resistant materials, neoprene, butyl rubber, viton. Highly resistant material, nitrile rubber.

8.2.2. c) Respiratory protection



No specific recommendation made, but respiratory protection must be used if the general level exceeds the Occupational Exposure Level (OEL). Gas mask when working short-time when atmospheric oxygen is greater than 18%, then with filter type "A" sign enough.

8.2.2. d) Thermal hazard

No data

8.2.3. Environmental exposure control

The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

- | | |
|--|--|
| 9.1. a) Consistence: | Liquid |
| 9.1. b) Colour: | Colourless |
| 9.1. c) Odour | Characteristic alcoholic odor, |
| Odour Threshold | no data |
| 9.1. d) Melting point/freezing point | -114,15 °C (Etanol) |
| 9.1. e) Initial boiling point and boiling range | 77,85 °C (Etanol) |
| 9.1. f) Flammability (solid, gas) | not applicable (product liquid) |
| 9.1. g) Upper/lower Flammability or explosive limits | |
| - lower: | nincs elérhető adat/no data available |
| - upper: | nincs elérhető adat/no data available |
| 9.1. h) Flash-point: | 13 °C |
| Evaporation rate | |
| 9.1. i) Auto-ignition temperature | 362,85°C (Etanol) |
| 9.1. j) Decomposition Temperature: | nincs elérhető adat/no data available |
| 9.1. k) pH-value | nem alkalmazható/not applicable |
| 9.1. l) Viscosity: | 1.2mPas (Etanol) |
| 9.1. m) Solubility(ies) | |
| - Water: | Miscible |
| - Other solvents: | No data |
| 9.1. n) Partition coefficient (n-octanol/water): | -0,35 (etanol/ethanol) |
| 9.1. o) Vapour Pressure (20°C): | nincs elérhető adat/no data available |
| 9.1. p) Relative density | 0,8 g/cm ³ |
| 9.1. q) Vapour Density: | nincs elérhető adat/no data available |
| 9.1. r) Particle characteristic | Ethanol: Not irritant (test on rabbits) (Method: OECD 404) |

9.2. Other Informations

Specific gravity (water=1), (20°C): nincs elérhető adat/no data available
 Other items: Surface tension: (20% in water at 20 ° C) 40mN / m (not surface active) (Ethanol)



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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Vapors form explosive mixtures with air,

10.2. Chemical stability

Stable under normal temperatures and pressures. (room temperature)

10.3. Possibility of hazardous reactions

May cause fire or explosion; strong oxidizer, alkali metals, earth metals

10.4. Conditions to avoid

High temperature, direct sunlight, ignition sources,

10.5. Incompatible materials

Strong oxidizing agents (strong inorganic acids, nitric acid, perchlorates, peroxy compounds, perchloric acid, permanganates, etc.), alkali metals, alkaline earth metals

10.6. Hazardous decomposition products

see section 5.3

SECTION 11: TOXICOLOGICAL INFORMATION

Actual materia

Ethanol
Ethyl methyl ketone
Isopropyl alcohol
Denatonium benzoate

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.a. Acute toxicity

Inhalation

Ethanol: LC50: (4hr) 51 mg / l 30,000 mg / m³ air rat male OECD 403 Not classified. Based on available data, the classification criteria are not met.

Isopropyl alcohol: May cause slight irritation to respiratory tract (<400 ppm). At higher concentrations, narcosis, drowsiness, coordination disorder, drop in blood pressure, nausea, vomiting.

Ethyl methyl ketone: LC50/inhalation/8 hour/rat 23,5 mg/l

Oral

Ethanol: Toxicity symptoms is include dizziness, double vision, signs of drunkenness, nausea. LD50: 10470 mg / kg
Method: OECD 401 (rat)

Ethyl methyl ketone: LD50/oral / hour/rat 2737 mg/kg

Isopropyl alcohol: LD50/oral / hour/rat >2000 mg/kg

Denatonium benzoate : LD50/oral / hour/rat 584 mg/kg

Dermal

Ethanol: LD50: 15800 mg / kg test

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

Ethyl methyl ketone: LD50/dermal/ hour/rabbit 6480 mg/kg

Isopropyl alcohol: LD50/dermal/ hour/rabbit >2000 mg/kg

Denatonium benzoate : LD50/dermal/ hour/rabbit > 2000 mg/kg

11.1.b. Skin corrosion/ Skin irritation

Ethanol: Not irritant (test on rabbits) (Method: OECD 404)

Ethyl methyl ketone: Contact with skin may cause skin dryness and irritation.

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

Denatonium benzoate : Causes skin irritation.

11.1.c. Serious eye damage/ Eye irritation



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Ethanol: Irritant (test on rabbits) (Method: OECD 405)
 Ethyl methyl ketone: Experimental animals: Result (rabbit): severe irritation,
 Isopropyl alcohol: the substance irritates the eyes, skin and respiratory tracts, Causes serious eye irritation.
 Denatonium benzoate : Causes serious eye irritation.

11.1.d. Respiratory or skin sensitisation

Ethanol: not sensitizing, Based on available data, the classification criteria are not met.
 Ethyl methyl ketone: not sensitizing,
 Isopropyl alcohol: not sensitizing,

11.1.e. Germ cell mutagenicity

Ethanol: Negative. Not classified (Based on available data, the classification criteria are not met).
 Ethyl methyl ketone: not mutagenic,
 Isopropyl alcohol: not mutagenic,

11.1.f. Carcinogenicity

Ethanol: No information available,
 Ethyl methyl ketone: none carcinogen,
 Isopropyl alcohol: none carcinogen,

11.1.g. Reproductive toxicity

Ethanol: Consumption of ethanol during pregnancy may affect the unborn child, resulting in spontaneous abortion, developmental problems, or birth defects. NOAEL (oral, mouse) = 13.8g/kg NOAEC (inhalation, rat) >16,000ppm
 Not classified (Based on available data, the classification criteria are not met).

Ethyl methyl ketone: Animal studies indicate that Methyl Ethyl. Ketone may have toxic effects on human reproduction.
 Isopropyl alcohol: No toxicity to reproduction.

11.1.h. Specific target organ toxicity — single

Ethanol: No information available,
 Ethyl methyl ketone: vapours may cause drowsiness and dizziness,
 Isopropyl alcohol: vapours may cause drowsiness and dizziness,
 Denatonium benzoate : May cause respiratory irritation.

11.1.i. Specific target organ toxicity — repeated exposure

Ethanol: No information available,
 Ethyl methyl ketone: no data
 Isopropyl alcohol: no information available,

11.1.j. Aspiration hazard

Ethanol: No information available,
 Ethyl methyl ketone: no data
 Isopropyl alcohol: no information available,

11.1.2. Information on likely routes of exposure

Ethanol: Chronic ingestion of ethanol may cause liver cirrhosis, affect the nervous system and affect the glands in humans. Exposure to high concentrations of ethanol vapours may cause irritation of the eyes, skin and respiratory tract, loss of coordination (ataxia), sleepiness, narcosis (stupor or unconsciousness), impaired perception and lack of coordination. It can also cause lowered inhibitions, dizziness, shallow respiration, unconsciousness and death.
 Ethyl methyl ketone: Acute oral toxicity: Causes nausea, vomiting, pulmonary edema and pneumonia.
 Acute dermal toxicity: Degreasing effect, formation of rough, cracked skin.
 Acute inhalation toxicity: Mucosal irritations, drowsiness. Absorption
 Isopropyl alcohol: may affect the upper respiratory tract and central nervous system,

11.1.3. Symptoms related to the physical, chemical and toxicological characteristics

Ethanol: No information available,

11.1.4. Symptoms related to the physical, chemical and toxicological characteristics

Ethanol: Inhalation of high concentrations of vapor may cause symptoms such as headache, dizziness, fatigue, nausea and vomiting. The product is corrosive. Gastric lavage or emesis is contraindicated. Possible perforation of the stomach and esophagus should be investigated. Ingestion causes severe swelling, severe injury to the affected tissue and risk of perforation

Ethyl methyl ketone: If swallowed in large quantities, nausea and vomiting. After absorption: dizziness, intoxication, dizziness, respiratory paralysis

Isopropyl alcohol: May cause central nervous system depression: Inhalation of high concentrations of vapor may cause symptoms such as headache, dizziness, fatigue, nausea and vomiting.

11.1.5. Interactive effects

Ethanol: The effects of the interactions are unknown;



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11.1.6. Absence of specific data

11.1.7. Mixtures

Ethanol: No information available.

11.1.8. Mixture versus substance information

Ethanol: No information is available on the interaction between the substances in the mixture;

11.2. Endocrine disrupting properties

11.2.1 Endocrine disrupting properties

Ethanol: Information relevant to the evaluation of endocrine disrupting properties for human health.
This product does not contain any known or suspected endocrine disruptors.

Ethyl methyl ketone: no data

Isopropyl alcohol: no information available,

11.2.2 Other informations

Ethanol: Not irritant (test on rabbits) (Method: OECD 404)

Ethyl methyl ketone: Experimental animals: Result (rabbit): mildly irritating to eyes,

Isopropyl alcohol: non irritant,

SECTION 12: ECOLOGICAL INFORMATION

Actual material

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Ethanol

Ethyl methyl ketone

Isopropyl alcohol

Denatonium benzoate

12.1. Toxicity

12.1.1. Water toxicity

Ethanol: Ethyl alcohol 9000 mg / L for 24 hours, result in death of the fish;

Isopropyl alcohol: slightly hazardous for water, CSB value: 97% ThOD

Ethanol: LC50/Rainbow trout (*Oncorhynchus mykiss*) /96 hour 12900-15300 mg/l

LC50/Rainbow trout (*Oncorhynchus mykiss*) /24 hour 11200 mg/l

EC 50/Photobacterium phosphoreum/ 5-30 min Microtox test 34900 mg/l

EC10/LC10, NOEC/Daphnia magna/48 hour 9,6 mg/l

EC10/LC10, NOEC/Chlorella vulgaris /96 hour 11,5 mg/l

Ethyl methyl ketone: LC50/fish,/ hour >100 mg/l

EC 50/Daphnia magna/48 hour >100 mg/l

EC 50/algae/7 days >100 mg/l

Isopropyl alcohol: LC50/fish,/48 hour >100 mg/l

EC 50/Daphnia magna/48 hour >100 mg/l

EC 50/algae/72 hour >100 mg/l

Denatonium benzoate : LC50/*Oncorhynchus mykiss* (rainbow trout)/96 hour > 1000 mg/l

EC50/Daphnia magna/48 hour 13 mg/l

12.1.2. Terrestrial toxicity

Ethanol: No information available,

Ethyl methyl ketone: not determined,

Isopropyl alcohol: No data

12.1.3. Behaviour in waste water treatment plants

Ethanol: No information available,

Ethyl methyl ketone: do not let the remaining materials, packagings to reach water surface, soil and drain,

Isopropyl alcohol: do not let the remaining materials, packagings to reach water surface, soil and drain,

12.2. Persistence and degradability

12.2.1. General



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Ethanol: readily biodegradable Results: 84% (Exposure time: 20 d) The substance is readily biodegradable, and therefore does not accumulate in the environment
 Ethyl methyl ketone: readily biodegradable,
 Isopropyl alcohol:

Easily degradable

Denatonium benzoate : Persistence and degradability
 15% biodegradation (ISO 7827).
 Biodegradation
 15% Dissolved Organic Carbon (DOC)

12.2.2. In water

Ethanol: See. 12.2.1. points
 Ethyl methyl ketone: Water solubility > 10000 mg / l
 Readily biodegradable

Isopropyl alcohol:

> 70% in 10 days

12.2.3. In air

Ethanol: No data
 Ethyl methyl ketone: No data
 Isopropyl alcohol: may not cause destruction of the ozone layer,

12.2.4. In soils and sediments

Ethanol: See. 12.2.1. points
 Ethyl methyl ketone: No data
 Isopropyl alcohol: No data

12.3. Bioaccumulative potential

Ethanol: Does not bioaccumulate Log Kow <4.5 The substance is not bio-accumulative.
 Partition coefficient n-octanol / water (log Kow): 3
 Bioconcentration factor (BCF): 3.2

Ethyl methyl ketone: Partition coefficient: octanol / water 0.3
 Isopropyl alcohol: Bioaccumulation is unlikely. Log Pow: 0.5
 Denatonium benzoate : Log Kow
 1.78 (estimated value)

12.4. Mobility in soil

Ethanol: Due to its reduced solubility in water, it is probably not mobile in the environment.
 Ethyl methyl ketone: No data
 Isopropyl alcohol: The substance is a volatile organic compound (VOC) which evaporates easily from the surface. Due to its volatility it is likely to be mobile in the environment. It disperses rapidly in air
 Denatonium benzoate : The substance is a volatile organic compound (VOC) which evaporates easily from the surface. Due to its volatility it is likely to be mobile in the environment. It disperses rapidly in air

12.5. Results of PBT and vPvB assessment

Ethanol: PBT and vPvB ingredients are not present.
 Ethyl methyl ketone: If swallowed in large quantities, nausea and vomiting. After absorption: dizziness, intoxication, dizziness, respiratory paralysis
 Isopropyl alcohol: May cause central nervous system depression: Inhalation of high concentrations of vapor may cause symptoms such as headache, dizziness, fatigue, nausea and vomiting.

12.6. Endocrine disrupting properties

Ethyl methyl ketone: This substance does not contain any known or suspected endocrine disrupters

12.7. Other adverse effects



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Hestia Fireplace Ethanol Natural: This substance does not contain any known or suspected endocrine disrupters
 Ethanol: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component This substance does not contain any known or suspected endocrine disrupters
 Ethyl methyl ketone: Avoid the material to flow in water, soil and into sewer,
 Isopropyl alcohol: Avoid the material to flow in water, soil and into sewer,

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

13.2. Package disposal

Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.
 Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

13.3. Waste identification codes

Packing: 15 01 10*
 Residue: 07 07 04*

SECTION 14: TRANSPORT INFORMATION

14.1. UN number UN 1170



ADR/ADN/RID

14.2. Proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es): 3

Labels: 3

Classification code F1

14.4. Packing group: II

Hazard identification number: 33

14.5. Environmental hazards: NO

Tunnel restriction code: (D/E)

IMDG

14.2. Proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es) 3

Labels 3

14.4. Packing group: II

EmS: F-E, S-D

Marine pollutant: NO

IATA

14.2. Proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es): 3

Labels 3

14.4. Packing group: II

PAX: 353

CAO: 364



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14.6. Special precautions for user

No data

14.7. Maritime transport in bulk according to IMO instruments

No data

SECTION 15: REGULATORY INFORMATION

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

REACH list of substances subject to authorization (Annex XIV): The product is not subject to REACH restrictions.

15.2. Chemical Safety

Chemical safety assessment has not been performed.

15.3. Seveso category

(219/2011. (X.20.) Korm.rendelet szerint)

SEVESO III - P5.c Flammable liquids SEVESO III - P5.c FLAMMABLE LIQUIDS;

15.4. Storage category

3.A storage category: Flammable liquid,

15.5. WGK - German Water hazard classes

WGK 1

15.6. Other relevant national regulations



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Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

Commission Regulation (EU) 2020/878 of 18 Jun 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulations Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

2000 XXV. law Chemical Safety

Decree No. 44/2000 (XII. 27.) of the Minister of Health on the detailed rules of certain procedures and activities related to hazardous substances and hazardous products, as amended by Decree No. 32/2021. (VII. 26.) of the ITM on the amendment of certain ministerial decrees on occupational safety and health.

5/2020. (II. 6.) ITM Decree on the protection of the health and safety of workers exposed to chemical pathogens

Commission Regulation (EU) 2018/605 of 19 April 2018 amending Annex II to Regulation (EC) No 1107/2009 by setting out scientific criteria for the determination of endocrine disrupting properties

Commission Delegated Regulation (EU) 2017/2100 of 4 September 2017 setting out scientific criteria for the determination of endocrine-disrupting properties pursuant to Regulation (EU) No 528/2012 of the European Parliament and Council

54/2014. (XII. 5) Minister of Interior on the National Fire Protection Regulations

1993. XCIII. law occupational protection Act on Occupational Health and Safety at Work Decree 5/1993. (XII.26.) MmM regulations in a uniform structure

Waste: 2012 CLXXXV. Law on waste; 225/2015. (VIII.7.) Government Decree on detailed rules for certain activities related to hazardous waste.

Decree 72/2013 (VIII.27.) Of the Ministry of Agriculture on the Waste List; 442/2012. (XII.29.) On packaging waste and packaging waste management activities.

Road transport Class:

508/2020. (XI. 18.) on the promulgation of the Protocol amending the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) and the Agreement concerning the International Carriage of Dangerous Goods by Road, concluded on 30 September 1957.

The LXXXIX of 2015. Act on the promulgation of the consolidated text of Annexes "A" and "B" of the ADR with the amendments and additions of 2015. Its domestic application was amended with the publication of NFM Decree 43/2015 (VII.20).

61/2013. (X.17.) NFM Decree 61/2013. (X.17.) NFM Decree on the domestic application of Annexes "A" and "B" of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

387/2021. (VI. 30.) on the promulgation of Annexes "A" and "B" of the Agreement on the International Carriage of Dangerous Goods by Road and on certain issues of its domestic application

Rail transport:

2011 LXXX. Act promulgating the consolidated text of Annex C to the Protocol of 3 June 1999 amending the Convention concerning International Carriage by Rail (COTIF), adopted in Vilnius on 3 June 1999, as amended and supplemented.

388/2021. (VI. 30.) Government Decree. Government Decree on the promulgation of Annex C to Annex C to the Protocol of 3 June 1999 amending the Convention Concerning International Carriage by Rail (COTIF), adopted in Vilnius, and on certain aspects of its domestic application.

62/2013. (X. 17.) NFM Decree on the domestic application of the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID).

Waterway (ADN)

XLII of 2000 Water Transport Act

386/2021. (VI. 30.) on the promulgation of the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) and on certain issues of its domestic application.

2015 LXXXIV. Act on the Promulgation and Domestic Application of the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN), done at Geneva on 26 May 2000.

SECTION 16: OTHER INFORMATION

16.1.a. The review affected this chapters:



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16.1.b. The abbreviation and acronyms used in Safety data sheet

REACH Registration, Evaluation, Authorisation and restriction of Chemicals

CSR Chemical Safety Report

ÁK value (permissible average concentration): the average concentration of air pollutant in workplace air for a shift which does not normally have an adverse effect on the worker's health,

CK value (permissible peak concentration) (shortest allowable maximum air contamination):

MK value (maximum concentration): highest concentration tolerated during shift

OEL Occupational Exposure Limit

DNEL Derived No Effect Level

PNEC Predicted No Effect Concentration

LD50 Lethal Dose 50%

LC50 Lethal Concentration 50%

EC50 Effective Concentration 50%

NOEL No Observable Effect Level

NOEC No Observable Effect Concentration

NOAEC No Observable Adverse Effect Concentration

NOAEL No Observable Adverse Effect Level

STP Sewage Treatment Plant

PBT Persistent, Bioaccumulative, and Toxic

vPvB Very persistent and very bioaccumulative

16.1.c. Key literature references and sources for data

ECHA database - echa.europa.eu

16.1.d. H- phrases

H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H335 - May cause respiratory irritation.

16.2. Technical advisory services

AGRÁR- Bioetanol Energiatermelő Kft.

Address: 7200 Dombóvár, Birkamajor

Tel.: 74/565-302 Fax: -

16.3. Further information

The classification of the product is based on the classification of the ingredients by a summation method.

16.4. General information

This information relates TO THE PRODUCT AS SUCH and is in compliance with the specifications of the enterprise.

In case of products and mixtures, it should be ensured that no new risks arise.

The information on this data sheet is based on our best knowledge at the time of printing the safety data sheet and is provided in good faith. However, certain data are being reviewed.

Users should note the potential for additional risks in case of using the product for purposes other than the recommended application. This data sheet may be used and reproduced for prevention and safety purposes only. The references to legislation, regulations and practical rules, and documents should not be considered complete.

It is the responsibility of the person receiving the product to consult all documents related to the use and handling of the product.

The responsibility of parties handling the product also includes to pass on the whole of the information listed on the safety data sheet and necessary for work safety and for the protection of health and the environment, to the next person who may get in contact in any way with the product (use, storage, cleaning of containers, other operations).

