FIRE LIGHTER GEL

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Annex II as amended by Regulation (EU) No 830/2015
Date of issue: 02.03.2018

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

1.1. Product identifier

Product type: Mixture/Solid Fuel

Product name: Fire Gel 500ml 100%Bio

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

1.2.1. Relevant identified uses

Main use category: Fire lighter gel

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Biofire OÜ
Tornimäe 5, Tallinn
10145, Estonia
Tel: +372 58805037
www.biofire.ee

1.4. Emergency telephone number

Poison information centre number (Estonia): 16662 (from abroad +372 6269390)
Open Mon 9:00 - 21:00, Tue-Sun 24H.

Emergency number: 112

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) no 1272/2008 (CLP)

Flam. solid H228
Eye Irrit. 2 H319

Full text of hazard classes and H-statements : see section 16

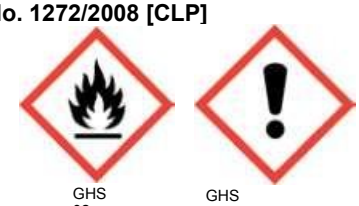
Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Pictogram(s) (CLP):



GHS 02 GHS 07

Signal word (CLP): Danger

Hazardous ingredients: Ethanol

Hazard statements (CLP): H228 – Flammable solid
H319 - Causes serious eye irritation.

Precautionary statements (CLP): P102 - Keep out of reach of children.
P103 - Read label before use.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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.
P403+P235 - Store in a well-ventilated place. Keep cool.

2.3. Other hazards

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Chemical name	Product identifier	%	Classification according to Regulation (EC) 1272/2008 (CLP)
Ethanol/Denatured	(CAS no) 64-17-5 (EC no) 200-578-6 (EC index no) 603-002-00-5 (REACH-no) 01-2119457610-43-0000	70-80%	Flam. Liq. 2, H225 Eye Irrit. 2, H319

Full text of H-statements: see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

First aid measures general: Never give anything by mouth to an unconscious person. Depending on the victim's condition: doctor/hospital.

First aid measures after inhalation: Remove the victim into fresh air. Consult a doctor/medical service if you feel unwell.

First aid measures after skin contact: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.

First aid measures after eye contact: Rinse immediately with plenty of water for at least 15 minutes. Take victim to an ophthalmologist if irritation persists.

First aid measures after ingestion: Do not induce vomiting. Rinse mouth with water. Immediately after ingestion: give plenty of water to drink. Consult a doctor/medical service if you feel unwell.

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

Symptoms/injuries after inhalation: EXPOSURE TO HIGH CONCENTRATIONS: coughing, dry/sore throat, dizziness, headache.

Symptoms/injuries after skin contact: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: dry skin, slight irritation.

Symptoms/injuries after eye contact: Irritation of the eye tissue. Liquid splashes in the eye may cause irritation.

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

No additional information available.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Extinguishing powder ABC, BC powder, foam, carbon dioxide.

Unsuitable extinguishing media: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Hazards arising from the substance or mixture: Highly flammable.In a fire or if heated, a pressure increase will occur and the container may burst. May ignite from spark.

Hazardous combustion products: Combustion products may include the following:
No.

Reactivity: Heated up to explosive reaction with (strong) oxidants. Combustion products CO and CO_2.

5.3. Advice for fire-fighters

Special protective equipment for fire fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing

	for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Special precautions for fire-fighters:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Full containers must be taken away from the fire area if possible without risk.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General measures:	Keep away from sparks and open flames. Isolate danger area. Keep upwind and away from low areas where vapours may accumulate and ignite. Use explosion protected electrical equipment and lighting. Prevent entry into sewers. Keep container closed. Wash contaminated clothes. Avoid breathing vapour.
6.1.1. For non-emergency personnel	Gloves, safety goggles, protective clothing. In case of large spillages/confined places: self-contained breathing apparatus.
6.1.2. For emergency responders	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

6.2. Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up:	Stop leak if without risk. Absorb with liquid-binding material e.g. sand, earth, vermiculite and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4. Reference to other sections

No additional information available

7.1. Precautions for safe handling

Precautions for safe handling:	Comply with the legal requirements. Work under local exhaust/ventilation. Avoid inhaling vapour. Avoid contact with eyes, skin and clothing. Immediately take of contaminated clothes. Use explosion protected electrical equipment and lighting. Take precautionary measures against static discharge. Keep container tightly closed. Keep away from ignition sources/sparks. Prevent entry into sewers.
Hygiene measures:	Always wash hands and face after handling the product and before the end of the work.

7.2. Conditions for safe storage, including any incompatibilities

Storage temperature:	5– +30 °C
Heat-ignition:	KEEP AWAY FROM: heat sources, ignition sources, oxidizing agents, (strong) acids. (strong) bases
Storage area:	Comply with the legal requirements Store in a cool area. Store in a dry area.Keep out of direct sunlight.
Special rules on packaging:	SPECIAL REQUIREMENTS: closed, dry, clean, correctly labelled, meet the legal requirements.
Packaging materials:	Store in original containers.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Ethanol (ethyl alcohol) (64-17-5)		
Estonia	Limit value 8 h (mg/m³)	1000 mg/m³ Estonian regulation no 293 (EE)
Estonia	Limit value 8 h (ppm)	500 ppm Estonian regulation no 293 (EE)
Estonia	Limit value 15 min (mg/m³)	1900 mg/m³ Estonian regulation no 293 (EE)
Estonia	Limit value 15 min (ppm)	1000 ppm Estonian regulation no 293 (EE)

8.2 Exposure controls

Appropriate engineering controls:	Use under adequate ventilation. Use enclosure, local exhaust ventilation or other technical measures to keep worker exposure to airborne contaminants below any applicable limit value. Technical mitigation measures must also keep gas, vapour or dust concentration below lower explosive limit.

Individual protection measures, such as personal protective equipment

Hygiene measures:	Special measures are not necessary. According to good industrial hygiene exposure to each chemical must be kept to a minimum.
Eye protection:	Special measures are not necessary. In case of splashes wear safety goggles.
Hand protection:	Special measures are not necessary. In case of frequent exposure wear protective gloves according to the requirements of Directive 89/686/EMÜ and standard EN 374.
Skin and body protection:	Special measures are not necessary. In case prolonged exposure wear protective clothes.
Respiratory protection:	Air concentration levels must be kept below occupational exposure limit values. Respiratory protection is needed when some activities cause the air concentrations to exceed the occupational exposure limit values.
Environmental exposure controls:	Avoid spreading into drains, surface and ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Flam. Solid/Gel
Colour:	Colourless, transparent
Odour:	Faint odour of alcohol
Odour threshold:	Not determined
pH:	5,8-6 1L
Melting point:	Not applicable owing to gelled nature
Freezing point:	Not determined
Initial boiling point and boiling range:	78 °C
Flash Point:	<23°C
Evaporation rate (butyl acetate=1):	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Not determined
Vapour pressure:	Not determined
Vapour density at 20 °C:	Not determined
Relative density:	Not determined
Solubility(ies):	Water: complete Ethanol: complete
Log Pow:	Not determined
Log Kow:	Not determined
Auto-ignition temperature:	490 °C
Decomposition temperature:	Not determined
Viscosity, kinematic:	Not determined
Viscosity, dynamic:	Not determined
Explosive properties:	Not determined
Oxidising properties:	Not determined

9.2 Other information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

No decomposition anticipated if stored sealed in original package. Product is stable under normal ambient conditions when storing or handling.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Keep away from heat sources, sparks, open flames and hot surfaces.

10.5. Incompatible materials

Keep away from oxidising agents, (strong) acids, (strong) bases.

10.6. Hazardous decomposition products

No additional information available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity: Not classified.

Ethanol (ethyl alcohol) (64-17-5)	
LC50 inhalation rat:	Male: 51 mg/l, female: 55 mg/l (4h, OECD 403, test result)
LD50 dermal rabbit:	> 10000 mg/kg
LD50 ingestion rat:	> 10000 mg/kg

Skin corrosion/irritation: Not classified.
Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitisation: Not classified.
Germ cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
STOT-single exposure: Not classified.
STOT-repeated exposure: Not classified.
Aspiration hazard: Not classified.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology – air: Not dangerous for the ozone layer (Regulation (EC) No 1005/2009 of the European Parliament and of the Council).

Ecology – water: Non-bioaccumulating. Readily biodegradable in water.

Ethanol (ethyl alcohol) (64-17-5)	
LC50 fish	> 1000 mg/l (OECD 212: test result)
EC50 daphnia	> 1000 mg/l

12.2. Persistence and degradability

Ethanol (ethyl alcohol) (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Test data on substance mobility not available.
Biochemical oxygen demand (BOD)	1,24 g O^2/g substance
Chemical oxygen demand (COD)	1,99 g O^2/g substance

12.3. Bioaccumulative potential

Ethanol (ethyl alcohol) (64-17-5)	
Log Pow	- 0,35 (20 °C)
Bioaccumulative potential	Low bioaccumulative potential (Log Kow < 4).

12.4. Mobility in soil

Ethanol (ethyl alcohol) (64-17-5)	
Surface tension	5% aqueous solution (20 °C): 56,4mN/m

12.5. PBT and vPvB assessment

No additional information available.

12.6. Other adverse effects

No additional information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste residues not to eliminate via the drain, but process in a suitable effluent treatment plant. Product surplus and non-recyclable products dispose of via a licensed waste disposal contractor. This product, its solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This chemical and its container must be disposed of in a safe way. Emptied containers that have not been cleaned or rinsed should be handled with care. Empty containers or liners may retain some product residues. Vapor from product residues may create in the container a highly flammable or explosive atmosphere. Do not cut, weld or grind used containers unless they have been cleaned thoroughly. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

According to ADR / RID / ADNR / IMDG / ICAO / IATA requirements.

14.1. UN number

UN-No (ADR):	1325
UN-No (IMDG):	1325
UN-No (IATA):	1325
UN-No (ADN):	1325
UN-No (RID):	1325

14.2. UN proper shipping name

UN proper shipping name (ADR):	Flammable solid, Organic, n.o.s.
UN proper shipping name (IMDG):	Flammable solid, Organic, n.o.s.
UN proper shipping name (IATA):	Flammable solid, Organic, n.o.s.
UN proper shipping name (ADN):	Flammable solid, Organic, n.o.s.
UN proper shipping name (RID):	Flammable solid, Organic, n.o.s.

14.3. Transport hazard class(es)

ADR

Class (UN) (ADR): 4.1

IMDG

Class (UN) (IMDG): 4

IATA

Class (UN) (IATA): 4

ADN

Class (UN) (ADN): 4

RID

Class (UN) (RID): 4

14.4. Packing group

Packing group (UN) (ADR):	III
Packing group (UN) (IMDG):	III
Packing group (UN) (IATA):	III
Packing group (UN) (ADN):	III
Packing group (UN) (RID):	III

14.5. Environmental hazards

Environmental hazards:	No
Marine pollutant:	No
Other information:	No additional information available.

14.6. Special precautions for user

Tunnel restriction code (ADR):	2.2.41
Hazard identification number (Kemler No.):	40

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

15.1.1. EL Regulations

Does not contain restricted substances listed in Annex XVII of REACH.
Does not contain substances included in the candidate list of REACH.
Does not contain substances of REACH Annex XIV.
(EC) No. 1907/2006 (REACH).
(EU) No. 830/2015 (amending Annex II or REACH).
(EC) No. 1272/2008 (CLP).

15.1.2. National Regulations

Estonia

Chemicals Act (RT I 1998, 47, 697).
Waste Act (RT I 2004, 43, 298).
Regulations No. 106, No. 293 and No. 102.

15.2. Chemical Safety Assessment

Supplier has assessed the safety of the product.

SECTION 16: OTHER INFORMATION

Used classification method according to (EC) Regulation No. 1272/2008 [CLP/GHS]:

Flam. Solid H228	Test method
Eye Irrit. 2 H319	summation method

Abbreviations / acronyms:

ADN/ADNR = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service number.
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
EINECS = European Inventory of Existing Commercial chemical Substances
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No-Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
SVHC = Substance of High Concern
UN = United Nations
vPvB = Very Persistent and Very Bioaccumulative

Full text of hazard categories and undescribed hazard statements:

Eye Irrit. 2	Eye irritation, Hazard Category 2
H228	Flammable solid
H319	Causes serious eye irritation.

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Note to reader

This information is based on our current knowledge and is intended to describe only to the health, safety and environmental requirements of the product. Any final determination of the suitability of the material remains the user's own discretion. All materials can have unknown risks and therefore should be treated with caution. Although in this safety data sheet are described certain hazards, we do not give any guarantee that these are the only hazards that exist.