

SAFETY DATA SHEET**HETI Jälkidesi**

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued 15.08.2018

Revision date 15.08.2018

1.1. Product identifier

Product name HETI Jälkidesi

Article no. 32. 15748166, 15748575

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

Use of the substance / preparation Disinfectant.

1.3. Details of the supplier of the safety data sheet**Producer**

Company name Berner Ltd/Pro

Office address Hitsaajankatu 24

Postal address P.O.Box 22

Postcode 00811

City Helsinki

Country Finland

Telephone number +3582079100

Email pro@berner.fi

1.4. Emergency telephone number

Emergency telephone Description: HUS Myrkytystietokeskus suora puh. (09) 471 977, 24 h (vaihte (09) 4711)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Flam. Liq. 2; H225
	Eye Irrit. 2; H319
	STOT SE 3; H336

2.2. Label elements

Hazard pictograms (CLP)



Signal word	Danger
Hazard statements	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Precautionary statements	P233 Keep container tightly closed. P210 Keep away from . No smoking. P305 IF IN EYES: P351 Rinse cautiously with water for several minutes. P285 In case of inadequate ventilation wear respiratory protection. P102 Keep out of reach of children.

2.3. Other hazards

Other hazards -

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
ethanol	CAS No.: 64-17-5 EC No.: 200-578-6 Index No.: 603-002-00-5	Flam. Liq. 2;H225 Eye Irrit. 2;H319	30 – 40	
2-Methyl-2-propanol	CAS No.: 75-65-0 EC No.: 200-889-7 Index No.: 603-005-00-1	Flam. Liq. 2; H225 Acute tox. 4; H332 Eye Irrit. 2; H319 STOT SE 3; H335	= 2,5 %	
isopropanol	CAS No.: 67-63-0 EC No.: 200-661-7 Index No.: 603-117-00-0	Flam. Liq. 2;H225 Eye Irrit. 2;H319 STOT SE 3;H336	35 – 45	
Substance comments	Seokset Rekisteröintinumero: Etanoli: 01-2119457610-43-xxxx Isopropanoli: 01-2119457558-25-0000 tert-butyylialkoholi:			

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Take off all contaminated clothing immediately.
Inhalation	Move to fresh air.
Skin contact	Wash off with warm water. If skin irritation persists, call a physician.
Eye contact	Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.
Ingestion	If swallowed, seek medical advice immediately and show this container or label.

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

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

Medical treatment	For specialist advice physicians should contact the Poisons Information Service.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
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5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	Flammable liquid and vapour.
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5.3. Advice for firefighters

Personal protective equipment	Self-contained breathing apparatus
Other information	-

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Keep people away from and upwind of spill/leak. Remove all sources of ignition.
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6.2. Environmental precautions

Environmental precautionary measures	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
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6.3. Methods and material for containment and cleaning up

Other information	Local authorities should be advised if significant spillages cannot be contained.
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6.4. Reference to other sections

Other instructions	For suitable protective equipment, see section 8. Dispose of waste, see section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Keep away from sources of ignition – No smoking. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms.
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7.2. Conditions for safe storage, including any incompatibilities

Storage	Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Store in conformity with local fire regulations.
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7.3. Specific end use(s)

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
ethanol	CAS No.: 64-17-5	Limit value (8 h) : 1000 ppm Limit value (8 h) : 1900 mg/m ³ Limit value (short term) Value: 1300 ppm Limit value (short term) Value: 2500 mg/m ³	
2-Methyl-2-propanol	CAS No.: 75-65-0	Limit value (8 h) : 50 ppm Limit value (8 h) : 150 mg/m ³ Limit value (short term) Value: 75 ppm Limit value (short term) Value: 230 mg/m ³	
isopropanol	CAS No.: 67-63-0	Limit value (8 h) : 200 ppm Limit value (8 h) : 500 mg/m ³ Limit value (short term) Value: 250 ppm Limit value (short term) Value: 620 mg/m ³	

8.2. Exposure controls

Safety signs



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Colourless liquid.
pH	Status: In delivery state Comments: n. 7

Boiling point / boiling range	Comments: 78°C (etanoli)
Flash point	Comments: 17 °C
Lower explosion limit with unit of measurement	Comments: 3,3 t-%
Upper explosion limit with units of measurement	Comments: 19 t-%
Vapour pressure	Comments: 5,9 kPa (20°C) (etanoli)
Relative density	Comments: 0,848 kg/dm³ 20°C
Partition coefficient: n-octanol/water	Comments: Etanoli log Pow = -0,3,
Auto-ignition temperature	Comments: 363 – 425 °C (EtOH)

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable under normal conditions.
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10.2. Chemical stability

Stability	Stable at normal ambient temperature and pressure.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
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10.4. Conditions to avoid

Conditions to avoid	Heat, flames and sparks.
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10.5. Incompatible materials

Materials to avoid	Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
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10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Other information regarding health hazards

Assessment of acute toxicity, classification	<p>Etanoli:</p> <p>LD50/dermal/rat = =10470 mg/kg</p> <p>LD50/dermal/rabbit = =15800 mg/kg</p> <p>LC50/inhalation/ 4 h/rat = =51-55 mg/l</p>
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LC50/hengitysteitse/1h/hiiri = =30000 mg/m³

tert-Butanoli:
LD50/oral/rat = 2733 mg/kg

LC50/inhalation/ 4 h/rat = =29,8 mg/l

LD50/dermal/rabbit = = > 2000 mg/kg

Ihokosketus Pitkäaikainen tai toistuva kosketus saattaa kuivattaa ihoa ja aiheuttaa ärsytystä.

isorpopanoli

LD50/oral/rat = 2000 mg/kg

LD50/dermal/rat = 10470 mg/kg

LD50/dermal/rabbit = =2000 mg/kg

LC50/inhalation/ 4 h/rat = 20 mg/l

LC50/hengitysteitse/1h/hiiri = =30000 mg/m³

Irritation

Ethanol may irritate eyes and dry skin.

SECTION 12: Ecological information

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability, comments

Etanoli: BOD5/COD >0,5; nopeasti biologisesti hajoava.
tert-Butanoli: Luontaisesti hajoava (BOD 2,5 % 28 d)

12.3. Bioaccumulative potential

Bioaccumulative potential

Etanoli: log Pow= -0,3, kertyvyys heikko.
tert-Butanoli: log Pow 0,35
Isopropanoli log Pow < = 4, biokertymistä ei ole odotettavissa

12.4. Mobility in soil

Mobility

The product evaporates readily.

12.5. Results of PBT and vPvB assessment

PBT assessment results

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

SECTION 14: Transport information

14.1. UN number

ADR/RID/ADN	1993
IMDG	1993
ICAO/IATA	1993

14.2. UN proper shipping name

ADR/RID/ADN	Palava neste (isopropanoli, etanoli)
IMDG	Palava neste (isopropanoli, etanoli)

14.3. Transport hazard class(es)

Comments	3
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14.4. Packing group

ADR/RID/ADN	II
IMDG	II
ICAO/IATA	II

14.5. Environmental hazards

14.6. Special precautions for user

14.7. Maritime transport in bulk according to IMO instruments

Pollution category	Not applicable.
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SECTION 15: Regulatory information

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

15.2. Chemical safety assessment

SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.
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Classification according to
Regulation (EC) No 1272/2008
[CLP / GHS]

Flam. Liq. 2; H225
Eye Irrit. 2; H319
STOT SE 3; H336

Additional information

Manufacturer and the label of the product.

Key literature references and
sources for data

REACH
MSDS of the raw materials

Version

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