

SAFETY DATA SHEET

Denatureret sprit 93 %

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	19.09.2017
Revision date	07.01.2019

1.1. Product identifier

Product name	Denatureret sprit 93 %
Product definition	Completely denatured ethanol, cf. Eurodenaturant 1 + 1 + 1

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

Use of the substance / preparation	<p>1. Stain removal. Recommended use: Always wear gloves when handling the product. Always ensure good ventilation and avoid breathing the product. Use as little as possible to moisten the stain.</p> <p>2. Fuel. Recommended use: Always wear gloves when handling the product. Always ensure good ventilation and avoid breathing the product. Use as little as possible.</p> <p>3. Addition to mortar. Recommended use: Always wear gloves when handling the product. Always ensure good ventilation and avoid breathing the product. Use about 3 liters for mortar.</p>
Relevant identified uses	<p>SU21 Consumer uses: Private households (= general public = consumers) PC35 Washing and cleaning products (including solvent based products)</p> <p>SU21 Consumer uses: Private households (= general public = consumers) PC13 Fuels</p> <p>SU21 Consumer uses: Private households (= general public = consumers) PC10 Building and construction substances not covered elsewhere</p>

1.3. Details of the supplier of the safety data sheet

Company name	Borup Kemi I/S
Postal address	Bækgårdsvej 53
Postcode	DK-4140

City	Borup
Country	Denmark
Telephone number	+45 57 56 00 20
Fax	+45 57 56 00 21
Email	kontakt@borup-kemi.dk
Website	www.borup-kemi.dk

1.4. Emergency telephone number

Emergency telephone	Description: Use your national or local emergency number.
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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
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2.2. Label elements

Hazard pictograms (CLP)



Signal word	Danger
Hazard statements	H225 Highly flammable liquid and vapour.
Precautionary statements	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents / container to hazardous waste handling.
Tactile warnings	Yes
Child-protection	Yes

2.3. Other hazards

Other hazards	Product contains low-boiling liquids. If using respirators must be self-contained.
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SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Ethanol	CAS No.: 64-17-5 EC No.: 200-578-6 Index No.: 603-002-00-5	Flam. Liq. 2; H225	93 vægt%
Butanone	CAS No.: 78-93-3	Flam. Liq. 2; H225	< 1,5 vægt%

	EC No.: 201-159-0 Index No.: 606-002-00-3	Eye Irrit. 2;H319 STOT SE 3;H336 EUH 066	
Propan-2-ol	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	< 1,5 vægt%
Denatonium Benzoate (Bitrex)	CAS No.: 3734-33-6 EC No.: 223-095-2		< = 0,010 vægt%
Substance comments	See full text of H-phrases in section 16.		

SECTION 4: First aid measures

4.1. Description of first aid measures

General	If medical advice is needed, have product container or label at hand. Burns: Flush with water until pain ceases. Remove clothing that is not stuck to the skin – seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Keep victim under observation. Get medical advice/attention if you feel unwell.
Skin contact	Wash skin with soap and water. Seek medical advice in case of persistent discomfort.
Eye contact	Open eye wide, remove any contact lenses and flush immediately with water (preferably using eye wash equipment). Seek medical advice immediately. Continue flushing until medical attention is obtained.
Ingestion	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Do NOT induce vomiting. Get medical advice/attention.

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

Acute symptoms and effects	Neurotoxic effect: This product contains organic solvents, which can have an effect on the nervous system. Symptoms of neurotoxicity can be: loss of appetite, headache, dizziness, whistling in the ears, tingling sensations in the skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer. The skin will then be more prone to absorb dangerous substances, e.g. allergens.
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4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with powder, foam, carbon dioxide or water mist. Use water or water mist to cool non-ignited stock.
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5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

Personal protective equipment

Use personal protective equipment as required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

Eliminate all ignition sources if safe to do so.
Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment.
Ensure adequate ventilation.

6.2. Environmental precautions

Environmental precautionary measures

Do not discharge large quantities of concentrated spills and residue into drains.

6.3. Methods and material for containment and cleaning up

Containment

Contain and absorb spill with sand or other absorbent, non-combustible material and transfer to suitable waste containers.

6.4. Reference to other sections

Other instructions

See section 8 for type of protective equipment.
See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling

See section 8 for information about precautions for use and personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Storage

The product should be stored safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc.
Keep in tightly closed original packaging.
Must be stored in a cool and ventilated area, away from possible sources of combustion.
Keep fireproof. Emergency Services technical regulations for flammable liquids must be strictly followed, including rules for flammable storage.

7.3. Specific end use(s)

Specific use(s)

See application section 1.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Value	TWA Year
Ethanol	CAS No.: 64-17-5	TWA (8h) : 1920 mg/m ³	

Butanone	CAS No.: 78-93-3	<p>TWA (8h) : 1000 ppm</p> <p>TWA (8h) : 200 ppm</p> <p>Exposure limit letter</p> <p>Letter code: Sk, BMGV</p> <p>TWA (8h) : 600 mg/m³</p> <p>Exposure limit letter</p> <p>Letter code: Sk, BMGV</p> <p>OEL short term value</p> <p>Value: 300 ppm</p> <p>Exposure limit letter</p> <p>Letter code: Sk, BMGV</p> <p>OEL short term value</p> <p>Value: 899 mg/m³</p> <p>Exposure limit letter</p> <p>Letter code: Sk, BMGV</p> <p>Exposure limit letter</p> <p>Letter description: Sk = Can be absorbed through the skin. BMGV = Biological monitoring guidance values.</p>
Propan-2-ol	CAS No.: 67-63-0	<p>TWA (8h) : 400 ppm</p> <p>TWA (8h) : 999 mg/m³</p> <p>OEL short term value</p> <p>Value: 500 ppm</p> <p>OEL short term value</p> <p>Value: 1250 mg/m³</p>
Denatonium Benzoate (Bitrex)	CAS No.: 3734-33-6	

DNEL / PNEC

Substance	Ethanol
DNEL	<p>Group: Professional</p> <p>Route of exposure: Long-term inhalation (local)</p> <p>Value: 1900 mg/m³</p> <p>Group: Professional</p> <p>Route of exposure: Long-term dermal (systemic)</p> <p>Value: 343 mg/kg</p> <p>Group: Professional</p> <p>Route of exposure: Long-term inhalation (systemic)</p> <p>Value: 950 mg/m³</p> <p>Group: Consumer</p> <p>Route of exposure: Acute inhalation (local)</p> <p>Value: 950 mg/m³</p> <p>Group: Consumer</p> <p>Route of exposure: Long-term oral (systemic)</p> <p>Value: 87 mg/kg</p> <p>Route of exposure: Long-term dermal (systemic)</p> <p>Value: 206 mg/kg</p>

PNEC	Route of exposure: Long-term inhalation (systemic) Value: 114 mg/m ³
	Route of exposure: Soil Value: 0,63 mg/kg soil dw
	Route of exposure: Saltwater Value: 0,79 mg/L
	Route of exposure: Freshwater Value: 0,96 mg/L
	Route of exposure: Water Value: 2,75 mg/L Reference: Intermittent releases Water
Substance	Butanone
DNEL	Group: Worker Route of exposure: Long term (repeated) - Dermal - Systemic effect Value: 1161 mg/kg bw/day
	Group: Consumer Route of exposure: Long term (repeated) - Inhalation - Systemic effect Value: 106 mg/m ³
	Group: Consumer Route of exposure: Long term (repeated) - Dermal - Systemic effect Value: 412 mg/kg bw/day
	Group: Consumer Route of exposure: Long term (repeated) - Oral - Systemic effect Value: 31 mg/kg bw/day
	Group: Worker Route of exposure: Long term (repeated) - Inhalation - Systemic effect Value: 600 mg/m ³
PNEC	Route of exposure: Saltwater Value: 55.8 mg/L
	Route of exposure: Water Value: 55.8 mg/L Reference: Intermittent releases
	Route of exposure: Soil Value: 22.5 mg/kg soil dw
	Route of exposure: Freshwater Value: 55.8 mg/L
Substance	Propan-2-ol
DNEL	Group: Worker Route of exposure: Long term (repeated) - Dermal - Systemic effect Value: 888 mg/kg bw/day
	Group: Consumer Route of exposure: Long term (repeated) - Oral - Systemic effect

PNEC	Value: 26 mg/kg bw/day
	Group: Worker
	Route of exposure: Long term (repeated) - Inhalation - Systemic effect
	Value: 500 mg/m ³
	Group: Consumer
	Route of exposure: Long term (repeated) - Dermal - Systemic effect
	Value: 319 mg/kg bw/day
	Group: Consumer
	Route of exposure: Long term (repeated) - Inhalation - Systemic effect
	Value: 89 mg/m ³
	Route of exposure: Saltwater
	Value: 140.9 mg/L
	Route of exposure: Freshwater
	Value: 140.9 mg/L
	Route of exposure: Water
	Value: 140.9 mg/L
	Reference: Intermittent releases
	Route of exposure: Soil
	Reference: 28 mg/kg soil dw

8.2. Exposure controls

Precautionary measures to prevent exposure

Appropriate engineering controls Use protective equipment as directed.

Eye / face protection

Eye protection, comments Goggles are not required when the product is used according to the recommended use.

Goggles are required if the product is used in addition to the applications prescribed in section 1 and associated exposure scenarios. Wear eye protection if exposed to eye contact.

Hand protection

Skin- / hand protection, short term contact Plastic or rubber gloves recommended.

Hand protection, comments Change gloves immediately if contaminated, and wash hands with soap and water.

Respiratory protection

Respiratory protection, comments Respiratory protection not required when used according to recommended use.

Respiratory protection is required if the product is used in addition to the applications prescribed in section 1 and associated exposure scenarios. In this

case, respiratory protection with filter A is required in case of insufficient ventilation.

Hygiene / environmental

Specific hygiene measures	Smoking, consumption of food or liquid, and storage of tobacco, food or liquid, are not allowed in the workroom. Whenever you take a break in using this product and when you have finished using it, all exposed areas of the body must be washed. Always wash hands, forearms and face.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	colourless
Odour	Alcohol odor
Melting point / melting range	Value: < -80 °C
Boiling point / boiling range	Value: 78 °C
Flash point	Value: 13 °C
Lower explosion limit with unit of measurement	Value: ~ 3,3 - 19 vol%
Vapour pressure	Value: ~ 5,7 kPa Temperature: 20 °C
Density	Value: 0,81 g/cm ³
Solubility	Medium: Water Comments: Blandbart. Medium: Fat Comments: Blandbart.
Spontaneous combustability	Value: 371 °C

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to avoid	Keep cool. Protect from sunlight. Take precautionary measures against static discharge.
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10.5. Incompatible materials

Materials to avoid	Avoid contact with strong oxidising agents. Avoid contact with strong acids.
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10.6. Hazardous decomposition products

Hazardous decomposition products	No special precautions regarding contact with other materials at the recommended storage conditions.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance	Ethanol
Acute toxicity	<p>Effect tested: LD50 Route of exposure: Oral Value: 1187 - 15010 mg/kg bw Animal test species: rat</p> <p>Effect tested: LC50 Route of exposure: Inhalation. Duration: 4 hour(s) Value: 115.9 - 133.8 mg/l Animal test species: Rat</p>
Substance	Butanone
Acute toxicity	<p>Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: 4,29 mL/kg bw Animal test species: Rat</p> <p>Type of toxicity: Acute Effect tested: LD50 Route of exposure: Dermal Value: > 10 mL/kg bw Animal test species: Rabbit</p>
Substance	Propan-2-ol
Acute toxicity	<p>Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: 5,84 g/kg bw Animal test species: rat</p> <p>Type of toxicity: Acute Effect tested: LD50 Route of exposure: Dermal Value: 16,4 mL/kg bw Animal test species: rabbit</p> <p>Type of toxicity: Acute Effect tested: LC50</p>

Route of exposure: Inhalation.
Duration: 6 h
Value: > 10000 ppm
Animal test species: rat

Other information regarding health hazards

General	Prolonged or repeated inhalation of vapors may damage the central nervous system.
Skin contact	Degreases and dries the skin. Repeated exposure may cause skin dryness or cracking. May cause irritation of the skin.
Eye contact	May cause irritation of the eye.
Ingestion	Ingestion may cause discomfort.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Ethanol
Acute aquatic, fish	Value: 14.2 - 15.4 g/l Test duration: 96 hour(s) Method: LC50
Substance	Butanone
Acute aquatic, fish	Value: 2993 mg/L Test duration: 96 h Method: LC50
Substance	Propan-2-ol
Acute aquatic, fish	Value: 9640 mg/L Test duration: 96 h Method: LC50
Substance	Ethanol
Acute aquatic, algae	Value: 275 mg/L Test duration: 72 hour(s) Method: EC50
Substance	Butanone
Acute aquatic, algae	Value: 1972 mg/L Test duration: 72 h Method: EC50
Substance	Ethanol
Acute aquatic, Daphnia	Value: 10 g/l Test duration: 48 hour(s) Method: LC50
Substance	Butanone
Acute aquatic, Daphnia	Value: 308 mg/L

	Test duration: 48 h Method: EC50
Substance	Propan-2-ol
Acute aquatic, Daphnia	Value: > 10000 mg/L Test duration: 24 h Method: LC50

12.2. Persistence and degradability

Substance	Ethanol
Biodegradability	Value: 97 % Method: OECD Guideline 301 B Test period: 28 day(s)
Substance	Butanone
Biodegradability	Value: 98 % Method: OECD Guideline 301 D Test period: 28 days
Substance	Propan-2-ol
Biodegradability	Value: 53 % Method: EU Method C.5 Test period: 5 days
Persistence and degradability, comments	Readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential	The product is not bioaccumulable.
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12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

PBT assessment results	The mixture does not meet the criteria for PBT or vPvB.
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12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.
EWC waste code	EWC waste code: 200113 solvents

SECTION 14: Transport information

14.1. UN number

ADR / RID / ADN	1170
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IMDG	1170
ICAO / IATA	1170

14.2. UN proper shipping name

Proper shipping name english ADR / RID / ADN	ETHYL ALCOHOL
ADR / RID / ADN	ETHYL ALCOHOL
IMDG	ETHYL ALCOHOL
ICAO / IATA	ETHYL ALCOHOL

14.3. Transport hazard class(es)

ADR / RID / ADN	3
Classification code ADR / RID / ADN	F1
IMDG	3
ICAO / IATA	3

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. Transport in bulk according to Annex II of Marpol and the IBC Code

Product name	ETHYL ALCOHOL
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Additional information

ADR / RID / ADN hazard label	3
IMDG Hazard label	3
ICAO / IATA Hazard label	3

ADR / RID - Other information

Tunnel restriction code	D/E
Transport category	2
Hazard No.	33
RID other applicable information	33

IMDG / ICAO / IATA Other information

EmS	F-E, S-D
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SECTION 15: Regulatory information

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

Legislation and regulations	People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC. For exceptions, see the Danish Working Environment Authority's Executive Order No. 239 of 6 April 2005.
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15.2. Chemical safety assessment

SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	EUH 066 Repeated exposure may cause skin dryness or cracking. H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Additional information	It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Key literature references and sources for data	EC regulation 1907/2006 (REACH) Directive 2000/532/EC EC Regulation 1272/2008 (CLP) EH40/2005 WELs (United Kingdom (UK), 8/2007).
Information added, deleted or revised	Review.
Version	1
Prepared by	Borup Kemi I/S