

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1 Product identifier

Trade name : Hendi Chafing Dish Fuel
 Synonyms : Art. 195109 bottle1 ltr
 Art. 195505 jerrycan 5 ltr

1.2 Relevant identified uses and uses advised against

Relevant identified uses : Chafing dish fuel for professional use in chafing dish apparatus.
 Uses advised against : This product should not be used, without asking advice from the supplier, for other applications than identified above.

1.3 Details of the supplier of the safety data sheet

Supplier : Hendi b.v., Steenoven 21, 3911 TX Rhenen, Nederland
 tel: 0031 317 681040 www.hendi.eu

1.4 Emergency telephone number

: NL NVIC Poison Centre: +31 (0)30- 2748888 (only for medical personnel in case of acute or unintentional poisoning).

UK National Poisons Information Service: In an emergency, members of the public should always contact their general practitioners, NHS 24 (Scotland) or NHS 111 (England and Wales) or local A&E department. Members of the public seeking specific information on poisons in the Republic of Ireland can contact the National Poisons Information Centre on 01 809 2166.

SECTION 2. HAZARDS IDENTIFICATION
2.1 Classification of the substance or mixture

EC Index number : 200-578-6
 CLP Regulation (EC 2016/918) : Flam. Liq. 2 (H225) & Eye Irrit. 2 (H319)
 Highly flammable liquid and vapour.
 Causes serious eye irritation.

2.2 Label elements

CLP Regulation (EC 2016/918)
 Pictogram(s)

: GHS02 & GHS07



Signal word : Danger

Hazard statement(s) : H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.

Precautionary statement(s) : 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+233 Store in a well ventilated place. Keep container tightly closed.
 P235 Keep cool.
 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.

Safety data sheet	Page: 2 of 8
	Issue date: 18-05-2018
Hendi Chafing Dish Fuel Ethanol UN 1993	Revision date: 22-11-2017
	According: (EC) 2015/830 of 28 May 2015 amending Regulation (EC) 1907/2006

2.3 Other hazards

: Before refilling let the fuel can cool down completely and clean it thoroughly.
 Use only with fuel can holder.
 Do not move if ignited.

If chafing dish fuel is used carefully there are no direct other hazards.

Product does not contain ingredients, which meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: not relevant

3.2 Mixture: with a cellulose-derivative thickened denatured ethanol, viscous

Chemical name	CAS number	EC number	Registration number	% (v/v)	Hazard statements (CLP 2016/918)
Ethanol	64-17-5	200-578-6	01-2119457610-43	50-80	Flam. Liq. 2 (H225), Eye Irrit. 2 (H319)
Methanol (Substance with occupational exposure limits defined on the Community level)	67-56-1	200-659-6	01-2119433307-44	<3	Flam. Liq. 2 (H225), Acute Tox. 3 (H331), Acute Tox. 3 (H311), Acute Tox. 3 (H301), STOT SE 1 (H370)
Butanon (Substance with occupational exposure limits defined on the Community level)	78-93-3	201-159-0	01-2119457290-43	<2	Flam. Liq. 2 (H225), Eye Irrit. 2 (H319), STOT SE 3 (H336)
Denatonium benzoate (Bitrex)	3734-33-6	223-095-2	-	<0,01	Acute Tox. 4 (H302), Skin Irrit. 2 (H315), Eye irrit. 2 (H319), STOT SE 3 (H335)

The full text of each relevant hazard statement is listed in Section 16.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General : When any doubt always seek medical attention.
 Inhalation : Fresh air, half-seated position, rest, if necessary consult a physician
 Contact with skin : Remove contaminated clothing and thoroughly wash skin with water and soap. In case of persisting irritation consult a physician.
 Contact with eyes : Protect non-irritated eye and if possible remove contact lenses. Wash out with lukewarm water for at least 15 minutes. Avoid powerful water stream, risk of cornea damage. In case of persisting irritation consult a physician.
 Ingestion : Ingestion almost impossible because of the presence of the component Bitrex. Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention and show the container or label.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation : In case of high concentration of vapours, product can cause cough, headache, dizziness, drowsiness, coordination disorders. Similar symptoms as after ingestion.
 Contact with skin : In case of frequent or long exposure product can cause: redness, drying, cracking of the skin.
 Contact with eyes : May cause redness, tearing, burning, pain.
 Ingestion : May cause nausea, vomiting, headaches, dizziness, coordination disorders, drowsiness.

4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured.
 Symptomatic treatment.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Fire-extinguishing powder, CO₂, water spray, alcohol-resistant foam.
 Unsuitable extinguishing media : High pressure stream of water – risk of expansion of the fire.

5.2 Special hazards arising from the substance or mixture

: During the fire, the product may produce hazardous fumes containing carbon monoxide, carbon dioxide. Do not inhale combustion products, they can be dangerous for human health

5.3 Advice for firefighters

: Highly flammable liquid and vapours. Product's vapours can create explosive mixtures with air. Product vapours are heavier than air and accumulate in the lower parts of the premises. Cool down containers at a safe distance with water spray to prevent bursting. Use personal protection typical in case of fire. Self-contained breathing apparatus and protective clothing should be worn in the fire zone and also when cleaning immediately after a fire in a closed or poorly ventilated area.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment & emergency procedures:

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that removing the problem and its results is conducted by a trained personnel only. In case of large spills, isolate the exposed area. Be aware of fire and explosion. Remove all sources all open fires and ignition sources. No smoking. Warning, there is a risk of slipping on spilled product.

6.2 Environmental precautions

: In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services

6.3 Methods and material for containment and cleaning up

: Collect with incombustible, liquid-binding material (e.g. sand, soil, universal binding agent, silica, etc.) and place it in labelled (plastic) containers. Collected material treat as waste. Clean the contaminated place. Apply adequate ventilation and use sparkle- and explosion safe tools.

6.4 Reference to other sections

: For personal protection - section 8. Disposal - section 13

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

: Handle in accordance with good occupational hygiene and safety practices. Avoid contact with skin and eyes. Before break and after work carefully wash hands. Keep containers tightly closed after use. Keep in well-ventilated place. Keep away from the heat and fire sources. Take precautionary measures against static discharge. Do not smoke.

7.2 Conditions for safe storage

: Keep only in fire- and explosion-safe, dry, cool places with good ventilation and in tightly closed packing. Keep away from food, beverages or animal food. Keep away from heat and direct sunlight. Keep away from fire. Storage apart from oxidizing substances.

7.3 Specific end use(s)

: Chafing dish fuel only for professional use in chafing dish apparatus.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters
Occupational exposure limit values :
Ethanol (CAS 64-17-5)

- Listed on the Dutch list of carcinogenic substances (2015)
- OEL 8 hour TGG = 260 mg/m³; 15 min TGG = 1900 mg/m³; skin notation (H) (Netherlands 2008)
- OEL 8 hour TGG = 960 mg/m³, 500 ppm; 15 min TGG = 1920 mg/m³, 1000 ppm (Germany-AGS 2009)
- OEL 8 hour TGG = 1900 mg/m³, 1000 ppm; 15 min TGG = 9600 mg/m³, 5000 ppm (France 2010)
- OEL 8 hour TGG = 1900-1920 mg/m³, 1000 ppm (Belgium, 2009; Denmark 2007; United Kingdom 2005; Spain 2010)

Methanol (CAS 67-56-1)

- Listed on the Dutch NON-exhaustive list of reprotoxic (2015)
- OEL 8 hour TGG = 133 mg/m³, 100 ppm; skin notation (H) (Netherlands 2010)
- SCOEL 8 hour TGG = 260 mg/m³; 15 min TGG = 520 mg/m³; skin notation (H) (Europe – SCOEL, 2007)
- OEL 8 hour TGG = 260-270 mg/m³, 200 ppm; skin notation (H) (Denmark, 2007; Germany-AGS 2009)
- OEL 8 hour TGG = 260 mg/m³, 200 ppm; 15 min TGG = 1300 mg/m³, 1000 ppm (France 2008)
- OEL 8 hour TGG = 266 mg/m³, 200 ppm; 15 min TGG = 333 mg/m³, 250 ppm (Belgium, 2009; United Kingdom 2005)

Butanon (CAS 78-93-3)

- SCOEL 8 hour TGG = 590 mg/m³; 15 min TGG = 900 mg/m³; (H) (Europe – SCOEL, 1999)
- OEL 8 hour TGG = 600 mg/m³; 15 min TGG = 600 mg/m³; (H) (Germany-AGS)
- OEL 8 hour TGG = 145 mg/m³; (H) (Denmark 2007)
- OEL 15 min TGG = 300 mg/m³; (Finland 2007)
- OEL 8 hour TGG = 600 mg/m³; 15 min TGG = 899 mg/m³; (United Kingdom 2005)
- OEL 8 hour TGG = 220 mg/m³; (Norwegian 2009)
- OEL 8 hour TGG = 295 mg/m³; 15 min TGG = 590 mg/m³; (H) (Austria 2007)
- OEL 8 hour TGG = 150 mg/m³; 15 min TGG = 300 mg/m³; (Sweden 2005)
- OEL 8 hour TGG = 590 mg/m³; 15 min TGG = 590 mg/m³; (Switzerland 2009)
- OEL 8 hour TGG = 600 mg/m³; 15 min TGG = 900 mg/m³; (France 2008; Belgium 2009; Spain 2010)

Recommended control procedures:

Procedures concerning the control over the dangerous components concentrations in the air and control over the air quality in the workplace should be applied – if they are available and justified for the position – in accordance with the current national and European Standards, with the conditions within the exposure place and a proper test methodology adapted to the working conditions.

Biological limits : not known

DNEL / PNEC values:
DNEL-values for ethanol

DNEL workers, inhalation, short-term, local: 1900 mg/m³
 DNEL workers, dermal, long-term, systemic: 343 mg/kg body weight
 DNEL workers, inhalation, long-term, systemic: 950 mg/m³
 DNEL consumer, inhalation, short-term, local: 950 mg/m³
 DNEL consumer, dermal, long-term, systemic: 206 mg/kg body weight
 DNEL consumer, inhalation, long-term, systemic: 114 mg/m³
 DNEL consumer, oral, long-term, systemic: 87 mg/kg body weight

PNEC-values for ethanol

PNEC fresh water: 0.96 mg/L
 PNEC marine water: 0.79 mg/L
 PNEC periodic release: 2.75 mg/L
 PNEC fresh water sediment: 3.6 mg/L
 PNEC marine water sediment: 2.9 mg/L
 PNEC soil: 0.63 mg/kg soil
 PNEC sewage treatment plant: 580 mg/L
 PNEC oral: 0.72 g/kg food

8.2 Exposure controls

Individual protection measures, such as personal protective equipment

- a) Eye / face protection : Goggles. If used as intended, not applicable.
- b) Skin / hand protection : If used as intended, not applicable. After use, clean up spilled parts and clean hands immediately with water and soap. Do not use gloves because of the risk of remaining spilled parts on the gloves.
- c) Respiratory protection : If used as intended, not applicable. At high concentrations of vapors of in case of sudden incidents, use half masks / masks with organic vapors absorber.
- d) Other : Work in accordance with the principles of safety and hygiene. During operation, do not eat, drink or smoke. Avoid contact with skin and eyes. Ensure good general and/or local ventilation at work stations to ensure the maintenance of concentrations of hazardous components in the atmosphere below the exposure limit values.

Personal protective equipment should be selected based to activities carried out, the associated risks must be approved by a specialist before handling the product.

Environmental exposure controls : Do not allow the large quantity of mixture to contaminate surface water, ground water, sewage system or soil.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	: viscous liquid gel, green and colourless
Odour	: characteristic
Odour threshold	: not determined
pH	: not applicable
Melting point / freezing point	: -70°C
Initial boiling point and boiling range	: 78°C
Flash point	: 21°C
Evaporation rate	: not determined
Flammability (solid, gas)	: flammable liquid
Upper / lower flammability or explosive limits	: 15% vol / 3,5% vol (ethanol)
Vapour pressure (20°C)	: 5,9 kPa
Vapour density	: not determined
Density (20°C)	: 860 kg/m ³
Solubility(ies)	: soluble in water
Partition coefficient: n-octanol/water	: not determined
Auto-ignition temperature	: 425°C (ethanol)
Decomposition temperature	: not determined
Viscosity	: not determined
Explosive properties	: not shown
Oxidising properties	: not shown

9.2 Other information : No further research data available.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity : Product is reactive, will not undergo dangerous polymerization. See section 10.3-10.5

10.2 Chemical stability : The product is stable under normal conditions.

10.3 Possibility of hazardous reactions : Hydrogen may be formed in reaction with light metals.

10.4 Conditions to avoid : Avoid direct sunlight, fire and heat sources.

10.5 Incompatible materials : Strong oxidants, light metals.

10.6 Hazardous decomposition products: Not known.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	: LD ₅₀ (oral rat): 7 000 mg/kg LD ₅₀ (skin rabbit): 13 153 mg/kg LCL ₀ (inhalation rat): 12 200 mg/l/4h
Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Eye damage/ irritation	: Causes serious eye irritation.
Sensitisation	: Based on available data, the classification criteria are not met.
Repeated dose toxicity	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Mutagenicity	: Based on available data, the classification criteria are not met.
Toxicity for reproduction	: Based on available data, the classification criteria are not met.
STOT- single exposure	: Based on available data, the classification criteria are not met.
STOT- repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

11.2 Other information : Information regarding acute and/or delayed results of the exposure was defined on the basis of the information on product's classification and/or toxicological studies as well as the experience and knowledge of the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity	: The product is not classified as dangerous for environment.
12.2 Persistence and degradability	: Product is easily biodegradable.
12.3 Bioaccumulative potential	: Not expected to bioaccumulate.
12.4 Mobility in soil	: Product mixes with water and spreads in the aquatic environment.
12.5 Results of PBT & vPvB assessment:	Substances contained in the product are not classified as PBT or vPvB.
12.6 Other adverse effects	: Product does not contribute to ozone depletion or global warming.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	: <u>For the product</u> : the waste should be disposed in authorized incinerations or waste treatment/ disposal plant, in accordance with the local legislation. Residues store in original containers. <u>For used packaging</u> : recycling, liquidation of empty containers dispose in accordance with the local legislation. Only containers completely emptied can be recycled.
13.2 Other information	: Take note of framework waste Directive (2008/98/EC) and Directive on packaging and packaging waste (94/62/EC)

SECTION 14. TRANSPORT INFORMATION**14.1 UN Number:**ADR/RID/ADN/IMDG/ICAO/IATA
UN 1993**14.2 UN proper shipping name:**ADR/RID/ADN/IMDG/ICAO/IATA
FLAMMABLE LIQUID, N.O.S. (ETHANOL)**14.3 Transport hazard class(es):**

3

14.4 Packing group:

III

14.5 Environmental hazards:

According to transport regulations, product is not dangerous for the environment.

14.6 Special precautions for user:

Other information ADR: Limited quantity 5 ltr

Tunnel restriction code: (D/E)

Shippers of dangerous goods packed in limited quantities shall prior to the transport, inform the carrier provably the total gross mass of such goods.

If there is more than 8000 kg gross limited quantities, you should take into account the applicable ADR regulations, transport dangerous goods by road. See ADR handbook 3.4.13 - 3.4.14 - 3.4.15

14.7 Transport in bulk according to Annex II of Marpol and the IBC code:

Not applicable.

SECTION 15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation (EC)**

REACH (EC 1907/2006)

- a) Substance of potential concern (Art.59) : Components are not included as substance of potential concern.
- b) Authorisation (Title VII) : Components are not included on authorisation list.
- c) Restrictions (Title VIII) : Components are not included on list of restrictions.

Other legislation (EC) : See section 2 and section 13.

National laws : See section 8.

15.2 Chemical safety assessment

: No chemical safety assessment has been carried out by the supplier of the mixture.

SECTION 16. OTHER INFORMATION
16.1 Revision comments

A vertical line in the left margin indicates that there is a relevant amendment from the previous version.

16.2 Abbreviations and acronyms used in the safety data sheet

Hazard statements (Section 3) : H225 = Highly flammable liquid and vapour.
 H301 = Toxic if swallowed.
 H302 = Harmful if swallowed.
 H311 = Toxic in contact with skin.
 H315 = Causes skin irritation.
 H319 = Causes serious eye irritation.
 H331 = Toxic if inhaled.
 H335 = May cause respiratory irritation.
 H336 = May cause drowsiness or dizziness
 H370 = Causes damage to organs.
 Eye Irrit. 2 Eye Irritation, cat. 2
 Flam. Liq. 2 Flammable Liquid cat. 2
 Acute Tox. 3 Acute Toxicity cat. 3
 STOT SE 1, 3 Specific target organ toxicity - single exposure cat. 1, 3

Control parameters (Section 8) : DNEL= 'Derived No-Effect Level'
 OEL= 'Occupational Exposure Limit'
 PNEC= 'Predicted No-Effect Concentration'
 SCOEL= 'Scientific Committee on Occupational Exposure Limits'
 TGG= 'Time Weighted Average'

Toxicological information (Section 11): LD50= Lethal Dose 50%
 Ecological information (Section 12) : PBT = Persistent, Bio accumulative and Toxic Substances
 vPvB = very Persistent and very Bio accumulative Substances

Transport information (Section 14) : ADN = European Agreement concerning the international carriage of dangerous goods by inland waterways.
 ADR = European Agreement concerning the international carriage of dangerous goods by road.
 IATA = International Air Transport Association.
 ICAO = International Civil Aviation Organization.
 IMDG = International Transport of Dangerous Goods by sea
 RID = International Regulations governing the carriage of dangerous goods by rail.

16.3 References and sources for data : Safety data sheet manufacturer
 ECHA dissemination database
 SER limits database

16.4 Other information and disclaimer
Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training. Persons related to the transportation of the dangerous goods in compliance with the ADR Agreement should be properly trained within the scope of performed tasks (general training, on-the-job training and training related to the safety issues).

All information given in this Safety Data Sheet is exclusively related to the product described and is provided assuming that the product will be used in a way and for the purposes as stated by the manufacturer. The information is based on our present state of knowledge and will be reviewed regularly. This Safety Data Sheet has only been set up with the intention to describe the safety aspects of the product and therefore should not be construed as guaranteeing specific properties of the product of concern or its suitability for a particular application. It is the user's own responsibility to take the precautionary measures described and also to take care that this information is complete and adequate for the use of this product. It is recommended to pass through the information in this Safety Data Sheet, whenever necessary in an adapted form, to all staff and interested parties of concern.

- *Changes, printing and typesetting errors reserved.*