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HENDI Liquid Fuel with wick	Revision date : 06-04-2023
	According: Regulation (EC) 1907/2006

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

1.1 Product identifier

Trade name	: Hendi liquid fuel with wick
Chemical name	: Diethylene glycol
CAS number	: 111-46-6
EC number	: 203-872-2
Index number	: 603-140-00-6
Registration number (REACH)	: 01-2119457857-21-XXXX
Synonyms	: Art. 193761, 6 tins in tray, 145gr Art. 193952, 24x tins 145gr Art. 193716, 6 tins in tray, 200gr Art. 193938, 24x tins 200gr Art. 193679, 24x tins 250gr

1.2 Relevant identified uses and uses advised against

Relevant identified uses	: Liquid 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 BV, Innovatielaan 6, 6745 XW De Klomp, The Netherlands tel: +31 (0)317 681040 info@hendi.eu www.hendi.eu
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1.4 Emergency telephone number : Hendi: +31 (0)317 681040 (CET 9:00 – 17:00)

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

EC Index number	: 203-872-2
CLP Regulation (EC 1272/2008)	: Acute Tox. 4 H302 Harmful if swallowed

2.2 Label elements

CLP Regulation (EC 1272/2008)



Pictogram(s)	: GHS07
Signal word	: <u>Warning</u>
Hazard statement(s)	: H302 Harmful if swallowed.
Precautionary statement(s)	: P102 Keep out of reach of children. P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. P501 Dispose of contents/container to an authorized waste disposal.

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2.3 Other hazards : If liquid fuel is used carefully there are no direct other hazards. Substance does not meet criteria for PBT or vPvB in accordance with Annex XIII of Regulation REACH. The substance is not identified as having endocrine disrupting properties.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Chemical name	CAS number	EC number	Registration number	%	Hazard statements (EC 1272/2008)
Diethylene glycol	111-46-6	203-872-2	01-2119457857-21-XXXX	C ≤100%	Acute Tox. 4 (H302)

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

3.2 Mixture: not relevant

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General	: When any doubt always seek medical attention.
Inhalation	: Remove to fresh air. Keep the victim warm and calm. Consult a doctor if disturbing symptoms appear.
Contact with skin	: Remove contaminated clothing and thoroughly wash skin with water and soap. Consult a doctor if disturbing symptoms appear.
Contact with eyes	: Protect non-irritated eye and if possible remove contact lenses. Rinse contaminated eyes thoroughly with water for 10-15 minutes. Avoid powerful water stream, risk of cornea damage. Consult an ophthalmologist if disturbing symptoms appear.
Ingestion	: Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a doctor and show the container or label.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation	: High concentration of vapours and mists may cause headaches, cough, respiratory irritation.
Contact with skin	: The product may cause redness, skin dryness, slight irritation.
Contact with eyes	: Possible redness, tearing, burning sensation.
Ingestion	: May cause nausea, vomiting, gastrointestinal problems, gastrointestinal irritation, after taking high doses, symptoms may occur even within a few minutes: sudden loss of consciousness, convulsions, respiratory and circulatory arrest, death.
Effects exposure	: There are no known effects other than those mentioned above.

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	: Extinguishing powder, carbon dioxide, water spray.
Unsuitable extinguishing media	: High pressure stream of water - risk of expansion of the fire.

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5.2 Special hazards arising from the substance or mixture

: During the fire, the product may produce harmful gases containing e.g. carbon monoxides, other hazardous unidentified products of thermal decomposition. Do not inhale combustion products, they can be dangerous for human health

5.3 Advice for firefighters

: Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Use breathing apparatus and suitable protective clothing when cleaning immediately after a fire in a closed or poorly ventilated area. Cool the endangered containers with water spray from a safe distance. Collect used extinguishing media.

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 only the trained personnel removes the effects of the accident. In case of large spills, isolate the exposed area. Use personal protective measures. Avoid contact with skin and eyes. Do not breathe vapours. Ensure adequate ventilation. Caution: Risk of slipping on the released product.

6.2 Environmental precautions

: Do not allow the product to get into the sewage system, surface waters and soil. 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

: Small leakage: Collect the spilled product with incombustible, absorbing materials (e.g. sand, soil, universal binding agent, silica, etc.) and place it in containers for waste. Collected material treat as waste. Clean and ventilate the contaminated area.
Large leakage: Isolate places where liquid accumulates; pump the collected liquid out.

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. Provide general and / or local ventilation in the workplace in order to maintain the concentration of the harmful agent in the air below the established limit values. Use personal protective equipment. Avoid vapor formation. Avoid contact with skin and eyes. Before break and after work carefully wash hands. Keep unused containers tightly closed. Ensure adequate ventilation.

7.2 Conditions for safe storage including any incompatibilities:

Store in properly labelled, sealed packages in a dry, cool and well-ventilated place. Container that is opened should be properly resealed and kept upright to prevent leakage. Keep away from incompatible materials (see subsection 10.5). Keep away from foodstuffs and animal feed. Avoid sources of heat and direct sunlight. Protect against water and moisture. Recommended storage temperature: < 40°C.

7.3 Specific end use(s)

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

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Please check any national occupational exposure limit values in your country.

Occupational exposure limit values:

Diethylene glycol (CAS 111-46-6)

The Netherlands:	70 mg/m ³ (TGG – 8h)
Germany	10 ppm (TGG – 8h) - 44 mg/m ³ (TGG – 8h)
United Kingdom:	23 ppm (TGG – 8h) - 101 mg/m ³ (TGG – 8h)
Austria:	10 ppm (TGG – 8h) - 44 mg/m ³ (TGG – 8h)
	40 ppm (TGG - 15min) - 176 mg/m ³ (TGG - 15min)
Denmark:	2,5 ppm (TGG – 8h) - 11 mg/m ³ (TGG – 8h)
Sweden:	10 ppm (TGG – 8h) - 45 mg/m ³ (TGG – 8h)
	20 ppm (TGG - 15min) - 90 mg/m ³ (TGG - 15min)
Switzerland	10 ppm (TGG – 8h) - 44 mg/m ³ (TGG – 8h)
	40 ppm (TGG - 15min) - 176 mg/m ³ (TGG - 15min)

Recommended control procedures.

Procedures for monitoring concentrations of hazardous components in the air and procedures for monitoring air purity in the workplace should be applied – if available and justified at a given position – in accordance with the relevant national or European Standards, taking into account the conditions at the site of exposure and the appropriate measurement methods adapted to the working conditions. The mode, type and frequency of test and measurements should meet the requirements of the appropriate laws.

DNEL and PNEC

Diethylene glycol (CAS 111-46-6)

<u>Exposure route</u>	<u>Exposure schema</u>	<u>Worker</u>	<u>DNEL</u>	<u>Consumer</u>
Inhalation	Long-term local	60 mg/m ³		12 mg/m ³
Inhalation	Long-term systemic	44 mg/m ³		12 mg/m ³
Skin	Long-term systemic	43 mg/kg bw/day		21 mg/kg bw/day

8.2 Exposure controls

Individual protection measures, such as personal protective equipment

- a) Eye / face protection : Not required in normal conditions of use. Use safety glasses if there is a risk of eye contamination.
- b) Skin / hand protection : When adjusting the length of the wick, we recommend to use latex disposable gloves. Then carefully wash hands with soap and water.
- c) Respiratory protection : If used as intended, not applicable.
- d) Thermal hazards : Not applicable.
- e) Other : Work in accordance with the principles of safety and hygiene. During operation, do not eat, drink or smoke. Before break and after work wash hand thoroughly. 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 must meet requirements of Regulation 2016/425/EU. The employer is obliged to provide protective equipment relevant to performed activities and in accordance with all quality requirements, including its maintenance and cleaning.

Environmental exposure controls

Prevent direct release to drains/surface waters. Do not contaminate surface waters and drainage ditches with chemicals or used containers. Released product or uncontrolled spills to surface waters should be reported to appropriate authorities in accordance with local and national legislations. Dispose as chemical waste, in accordance with local and national legislation.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Physical state : liquid
- b) Colour : colourless
- c) Odour : odourless
- d) Melting point / freezing point : -6,5°C
- e) Boiling point or initial boiling point and boiling range : 244,9°C (1.013 hPa)
- f) Flammability (solid, gas) : the product is not classified in terms of flammability
- g) Lower and upper explosion limit : 1,7% vol. / -% vol.
- h) Flash point : 138°C
- i) Auto-ignition temperature : 372°C
- j) Decomposition temperature : not determined
- k) pH : 7,1 (500 g/kg, 20°C)
- l) Kinematic viscosity : not determined
- m) Solubility : soluble in water
- n) Partition coefficient n-octanol/water (log value) : -1,98
- o) Vapour pressure : 0,008 hPa (25°C)
- p) Density and/or relative density : 1,118 g/cm³ (20°C)
- q) Relative vapour density : not determined
- r) Particle characteristics : not applicable

9.2 Other information : Dynamic viscosity: 30 mPa.s (25°C)

SECTION 10. STABILITY AND REACTIVITY

- 10.1 Reactivity** : Product is not very reactive, will not undergo dangerous polymerization. See subsection 10.3-10.5
- 10.2 Chemical stability** : The product is stable under normal conditions of use and storage.
- 10.3 Possibility of hazardous reactions** : Not known.
- 10.4 Conditions to avoid** : Avoid contact with moisture. Avoid direct sunlight and sources of heat.
- 10.5 Incompatible materials** : Avoid contact with following materials: Strong oxidants.
- 10.6 Hazardous decomposition products**: Not known.

SECTION 11. TOXICOLOGICAL INFORMATION

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

- a) Acute toxicity : LD₅₀ (oral, rat): 19600 mg/kg
LD₅₀ (oral, human): 1120 mg/kg
LD₅₀ (skin, rabbit): 13300 mg/kg
LC₅₀ (inhalation, rat): > 4,6 mg/l/4h
Harmful if swallowed.
- b) Skin corrosion/irritation : Based on available data, the classification criteria are not met.
- c) Serious eye damage/ irritation : Based on available data, the classification criteria are not met.
- d) Respiratory or skin sensitization : Based on available data, the classification criteria are not met.
- e) Germ cell mutagenicity : Based on available data, the classification criteria are not met.
- f) Carcinogenicity : Based on available data, the classification criteria are not met.

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- g) Reproductive toxicity : Based on available data, the classification criteria are not met.
 h) STOT- single exposure : Based on available data, the classification criteria are not met.
 i) STOT- repeated exposure : Based on available data, the classification criteria are not met.
 j) Aspiration hazard : Based on available data, the classification criteria are not met.

Information on likely routes of exposure

Exposure route: eye exposure, skin exposure, inhalation, ingestion. For more information on the impact of each possible route of exposure, see subsection 4.2.

Symptoms related to the physical, chemical and toxicological characteristics

See subsection 4.2 of the SDS.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

See subsection 4.2 of the SDS.

11.2 Other information:

Endocrine disrupting properties:

The substance is not identified as having endocrine disrupting properties.

Other information: Diethylene glycol in pharmaceutical products caused fatal cases and severe kidney damage in humans.

SECTION 12. ECOLOGICAL INFORMATION

- 12.1 Toxicity** : Diethylene glycol (CAS 111-46-6)
 LC₅₀ (fish) - 75222 mg/l / 96h / Pimephales promelas
 Method: -
 The product is not classified as hazardous to the aquatic environment.
- 12.2 Persistence and degradability** : Diethylene glycol (CAS 111-46-6)
 Easily biodegradable - 102% / 28 days
 Method: EU C.4-A / OECD 301 A / ISO 7827
- 12.3 Bioaccumulative potential** : Diethylene glycol (CAS 111-46-6)
 log Po/w = -1,47 / Method: -
 BCF = - / Method: -
- 12.4 Mobility in soil** : Mobility of the substance depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.
- 12.5 Results of PBT & vPvB assessment:** Substance does not meet criteria for PBT or vPvB in accordance with Annex XIII of Regulation REACH.
- 12.6 Endocrine disrupting properties** : The product is not identified as having endocrine disrupting properties.
- 12.7 Other adverse effects** : Product has no influence on global warming and destruction of the ozone layer.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Recommendations for the product: The waste product should be recovered or disposed of in authorized incineration plants or waste disposal / neutralization plants, in accordance with applicable regulations. Do not empty into drains.

Recommendations for used packaging: Reuse, recycle, eliminate empty containers in accordance with the local legislation. Only containers completely emptied can be reused.

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13.2 Other information

: Take note of framework waste Directive (2008/98/EC) and Directive on packaging and packaging waste (94/62/EC)

Recommended waste codes:

15 01 10*: packaging containing residues of or contaminated by hazardous substances

16 03 05*: organic wastes containing hazardous substances

SECTION 14. TRANSPORT INFORMATION

14.1 UN Number:

Not applicable. Product is not classified as dangerous in accordance with transport regulations.

14.2 UN proper shipping name:

Not applicable. Product is not classified as dangerous in accordance with transport regulations.

14.3 Transport hazard class(es):

Not applicable. Product is not classified as dangerous in accordance with transport regulations.

14.4 Packing group:

Not applicable. Product is not classified as dangerous in accordance with transport regulations.

14.5 Environmental hazards:

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

14.6 Special precautions for user:

Not applicable.

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.

National laws: Ensure compliance with relevant national legal obligations.

15.2 Chemical safety assessment

: Manufacturer carried out a Chemical Safety Assessment for this substance.

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) : H302 = Harmful if swallowed.

Control parameters (Section 8) : DNEL = 'Derived No-Effect Level'
PNEC = 'Predicted No-Effect Concentration'

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Toxicological information (Section 11): LD50= Lethal Dose 50%
 LC50= Lethal Concentration 50%

Ecological information (Section 12) : PBT = Persistent, Bioaccumulative and Toxic Substances
 vPvB = very Persistent and very Bioaccumulative Substances

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

16.4 Training advice

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).

16.5 Other information and disclaimer

Traceability of the product by means of the production date which is indicated on the product.

The content and format of this safety data sheet is in accordance with amendment of Regulation (EC) 1907/2006 via (EU) 2020/878.

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.