

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	: 01-2119457857-21
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

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 b.v., Steenoven 21, 3911 TX Rhenen, Nederland Tel: 0031 317681040 www.hendi.eu
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1.4 Emergency telephone number : Contact National Poison Intoxication Centre

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

EC Index number	: 203-872-2
CLP Regulation (EG 1272/2008)	: Acute Tox. 4 (H302), STOT RE 2 (H373)

2.2 Label elements

CLP Regulation (EG 1272/2008)	: GHS07 & GHS08
Pictogram(s)	



Signal word : Warning

Hazard statement(s) : H302 Harmful if swallowed.
 H373 May cause damage to kidneys through prolonged or repeated exposure.

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.

2.3 Other hazards : If the liquid fuel is used carefully there are no direct other hazards.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
3.1 Substance:

Chemical name	CAS number	EC number	Registration number	% (v/v)	Hazard statements (CLP 1272/2008)
Diethylene glycol 2-2'-oxydiethanol	111-46-6	203-872-2	01-2119457857-21	>99,5%	Acute Tox. 4 (H302) STOT RE 2 (H373)

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

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|-------------------|--|
| General | : When any doubt always seek medical attention. |
| Inhalation | : Remove to fresh air, half-seated position. Keep the victim calm. Consult a doctor if disturbing symptoms appear. |
| Contact with skin | : Take off contaminated clothes. Wash skin thoroughly with plenty of water with soap. Consult a doctor if disturbing symptoms appear. |
| Contact with eyes | : Protect non-irritated eye and (if possible) remove contact lenses. Wash out with plenty of water thoroughly for 15 minutes. Avoid powerful water stream – risk of cornea damage. Consult an oculist if disturbing symptoms appear. |
| Ingestion | : Call a doctor immediately, show container or label. Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. In case of fainting, lay the victim down in a recovery position. |

4.2 Most important symptoms and effects, both acute and delayed

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|--------------------|---|
| Inhalation | : Due to the low vapour pressure of the product has a low inhalation toxicity, high vapour pressure (heated product) or mist, may cause slight irritation of respiratory tract. |
| Contact with skin | : Prolonged exposure may cause redness, drying, slight irritation. |
| Contact with eyes | : May cause redness, tearing, slight irritation. |
| Ingestion | : May cause irritation of digestive tract, disorders of the central nervous system, kidney and liver damage; firstly, intoxication causes similar symptoms as after alcohol intoxication: agitation, problems with speaking, with balance, coordination disorders, headaches and dizziness, drowsiness etc.; then nausea and vomiting. May cause breathing disorders, in case of a severe intoxication: collapse, fainting, coma, possible death due to respiratory arrest. Lethal dose is: 0,1-5 g/kg. |
| Prolonged exposure | : Prolonged intoxication may cause renal disorder and damage with polyuria, oliguria and finally- anuria, laboratory tests demonstrated possibility of proteinuria, urinary casts and erythrocytes in urine and increased concentration of nitrogen in the blood. Serious changes in liver, such as: enlargement, congestion, fatty degeneration, may occur. |

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. After ingestion, perform gastric lavage with caution (risk of choking). Intensive conservative treatment. Constant monitoring and levelling of acid-base imbalances.

SECTION 5. FIREFIGHTING MEASURES
5.1 Extinguishing media

- Suitable extinguishing media : Fire-extinguishing powder, CO₂, alcohol-resistant foam, water spray.
 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 oxides. Do not inhale combustion products, they can be dangerous for human health.

5.3 Advice for firefighters

- : Self-contained breathing apparatus and protective clothing resistant to chemicals 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. Use personal protective measures. Avoid contact with skin and eyes. Ensure adequate ventilation. Be prepared for fire and explosion. Remove immediately all open fires and ignition sources. Warning! Risk of slipping on the spilled product.

6.2 Environmental precautions

- : Isolate the spillage, remove the top layer of 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

- : Collect with incombustible, liquid-binding materials (e.g. sand, soil, universal binding agent, silica, etc.) and place it in containers for waste. Use spark- and explosion-safe tools. Collected material treat as waste. Clean the contaminated area.

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. Unused containers keep tightly closed. Ensure adequate ventilation. Work away from the ignition sources.

7.2 Conditions for safe storage

- : Keep only in a separated, well-ventilated area, in original, tightly closed container, placed vertically. Store in a dry, cool area, protect from freezing. Avoid heat and fire sources and direct exposure to sunlight. Keep away from ignition sources. Avoid oxidizing agents, acids and bases. No smoking. Keep away from food and animal food.

7.3 Specific end use(s)

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters

- Occupational exposure limit values** : Diethylene glycol (CAS 111-46-6)
- OEL 8 hour TGG = 70 mg/m³; skin notation (H) (Netherlands 2007)
 - OEL 8 hour TGG = 44 mg/m³, 10 ppm (Germany-AGS 2009)
 - OEL 8 hour TGG = 44 mg/m³, 10 ppm; 15 min TGG = 176 mg/m³, 40 ppm (Austria 2007; Switzerland 2009)
 - OEL 8 hour TGG = 101 mg/m³, 23 ppm (United Kingdom 2007)
 - OEL 8 hour TGG = 11 mg/m³, 2,5 ppm (Denmark 2007)

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.

Biological limits : Not known

DNEL / PNEC values : Diethylene glycol (CAS 111-46-6) DNEL value
 Inhalation (employee, long term exposure, local effects) 60 mg/m³
 Inhalation (population, long term exposure, local effects) 60 mg/m³
 Skin (employee, long term exposure, general effects) 106 mg/kg
 Skin (population, long term exposure, local effects) 53 mg/kg
PNEC value
 Fresh water (aquatic toxicity, fresh water) = 10 mg/l
 Sea water (aquatic toxicity, sea water) = 1 mg/l
 Soil (bottom) = 1,53 mg/kg
 Sediment (sediment, fresh water) = 20,9 mg/kg

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 : 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) Other : Work in accordance with the principles of safety and hygiene. Do not eat, drink or smoke when using the product. 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. Possible emissions from the ventilation systems and processing equipment should be controlled in order to determinate their compatibility with environmental protection regulations.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties

- Appearance : liquid, colourless
- Odour : faint
- Odour threshold : not determined
- pH (concentrate, 20°C) : 6-9
- Melting point / freezing point : -6,5°C
- Initial boiling point and boiling range : 244,9°C
- Flash point : 138°C (closed crucible)

Evaporation rate	: not determined
Flammability (solid, gas)	: not applicable
Upper / lower flammability or explosive limits	: 10,8%/ 1,6% vol
Vapour pressure (25°C)	: 0,008 hPa
Vapour density	: 3,66
Relative density (20°C)	: 1,18 g/cm ³
Solubility(ies)	: soluble in water
Partition coefficient: n-octanol/water	: -1,98
Auto-ignition temperature	: 229°C
Decomposition temperature	: not determined
Viscosity (25°C)	: 30 mPa·s
Explosive properties	: not display
Oxidising properties	: not display

9.2 Other information : refractive index: 1,447

SECTION 10. STABILITY AND REACTIVITY

- 10.1 Reactivity** : Product is feebly 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** : Not known.
- 10.4 Conditions to avoid** : Avoid direct sunlight, fire, heat and ignition sources.
- 10.5 Incompatible materials** : Strong oxidants, acids.
- 10.6 Hazardous decomposition products:** No hazardous decomposition products.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	
LD ₅₀ (rat, oral)	> 16 500 mg/kg
LD ₅₀ (human, oral)	1 120 mg/kg
LD ₅₀ (rabbit, skin)	13 300 mg/kg
LC ₅₀ (rat, aerosol)	> 4,6 mg/l/4h

Harmful if swallowed.

Skin corrosion/ irritation:
Based on available data, the classification criteria are not met.

Serious eye damage/ irritation:
Based on available data, the classification criteria are not met.

Respiratory or skin sensitization:
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.

Reproductive toxicity:

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:

May cause damage to kidneys, through prolonged or repeated exposure.

Aspiration hazard:

Based on available data, the classification criteria are not met.

Effects on organs:

Central Nervous System: headaches, dizziness, blurred vision, blackout, convulsions, coma.

Lungs: possible oedema and/ or pneumonia.

Heart and circulatory system: possible acute left ventricular failure, concussion, cardiac arrest.

Kidneys: acute renal failure, uraemia.

Blood and circulatory system: coagulation disorders, possible hemolysis, metabolic acidosis.

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

Toxicity for fish	LC ₅₀	752 000 mg/l/96h (<i>Pimephales promelas</i>)
Toxicity for Daphnia	EC ₅₀	100 000 mg/l/24h (<i>Daphnia magna</i>)
Toxicity for algae	EC ₅₀	2700 mg/l/8 days (<i>Scenedesmus quadricauda</i>)
Toxicity for aquatic microorganisms	EC ₁₀	> 1995 mg/l/30 min (<i>active sediment, municipal waste, fresh water</i>)

The product is not classified as dangerous for environment.

12.2 Persistence and degradability

: Product is biodegradable (70-80%, 28 days, method: OECD 301B).

12.3 Bioaccumulative potential

: Not expected to bioaccumulate (log Po/w) -1,98

12.4 Mobility in soil

: Product is easily soluble in water and spreads in the aquatic environment

12.5 Results of PBT & vPvB assessment:

Not applicable.

12.6 Other adverse effects

: Product does not contribute to ozone depletion or global warming.

SECTION 13. DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods

: For the product: the waste should be disposed in authorized incinerations or waste treatment/ disposal plant, in accordance with the local legislation. Residues store in original containers.
For used packing: 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:**

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:

None

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 13.

National laws : See section 8.

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.
H373= May cause damage to organs through prolonged or repeated exposure.

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

Toxicological information (Section 11): LD50= Lethal Dose 50%
Ecological information (Section 12) : LC50= Lethal Concentration 50%

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.*