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

1.1 Product identifier

Trade name: HVO100

REACH registration No.:
01-2120043692-58-xxxx
01-2119450077-42-xxxx

This safety data sheet pertains to the following products:
352 = HVO100

List number: 700-571-2

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

General use: Fuel / Fuel.
Lubricant, Additive, Coatings and thinners.

1.3 Details of the supplier of the safety data sheet

Company name: Enilive Deutschland GmbH
Street/POB-No.: Theresienhöhe 30
Postcode, city: 80339 München
Germany
Email: mbx.enide.hse@enilive.com
Telephone: +49 (0)89-59 07-0
Telefax: +49 (0)89-59 63-03
Department responsible for information:
HSE
Telephone: +49 (0)89-59 07-0, Email: mbx.enide.hse@enilive.com

1.4 Emergency telephone number

GIZ-Nord, Göttingen
Telephone: +49 551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Flam. Liq. 3; H226 Flammable liquid and vapour.
Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.
(EUH066) Repeated exposure may cause skin dryness or cracking.

2.2 Label elements

Labelling (CLP)



Signal word: **Danger**

Hazard statements:	H226	Flammable liquid and vapour.
	H304	May be fatal if swallowed and enters airways.
	EUH066	Repeated exposure may cause skin dryness or cracking.
Precautionary statements:		
	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P280	Wear protective gloves/protective clothing/eye protection.
	P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
	P331	Do NOT induce vomiting.
	P370+P378	In case of fire: Use extinguishing powder, carbon dioxide or sand to extinguish.
	P403+P235	Store in a well-ventilated place. Keep cool.
	P501	Dispose of contents/container in accordance with national regulation.

Special labelling

Text for labelling: Contains: Renewable hydrocarbons (diesel type fraction)

2.3 Other hazards

Potentially explosive mixtures may form if adequate ventilation is not provided.
Vapours are heavier than air and will spread at floor level.
Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may lead to a narcotic effect.
Special danger of slipping by leaking/spilling product.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical characterisation: Renewable hydrocarbons (diesel type fraction)
UVCB

List number: 700-571-2

Additional information: Renewable hydrocarbons (diesel type fraction) obtained from the catalytic hydrotreatment of vegetable oils and/or animal fats followed by hydroisomerisation. Predominantly rich in saturated hydrocarbons with a carbon number range from C15 to C18.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:
If medical advice is needed, have product container or label at hand.
Take off contaminated clothing and wash it before reuse.
Caution if victim vomits: Risk of aspiration!

In case of inhalation:
Move victim to fresh air; if necessary, provide artificial respiration or oxygen.
Make sure he/she is warm and comfortable. Seek medical treatment in case of troubles.

Following skin contact:
Thoroughly wash skin with soap and water. In case of skin reactions, consult a physician.

After eye contact:
Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing.
Subsequently consult an ophthalmologist.

After swallowing:
Do not induce vomiting.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs.
Rinse mouth with water. Never give anything by mouth to an unconscious person.
Immediately get medical attention.
Caution if victim vomits: Risk of aspiration!

4.2 Most important symptoms and effects, both acute and delayed

May be fatal if swallowed and enters airways.
Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. When swallowed and vomited immediately, aspiration into the lungs may occur resulting in chemical pneumonia or suffocation.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
Only in case of small fires: extinguishing powder, carbon dioxide, earth, sand.
In case of large fires water spray jet, foam.

Extinguishing media which must not be used for safety reasons:
Full water jet.

5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour.
Air combined with vapours may form potentially explosive mixtures that are heavier than air. Vapours may proceed on the ground over great distances and cause fire and backflashes.
May form dangerous gases and vapours in case of fire. Furthermore, there may develop: unidentified organic and inorganic compounds, Carbon monoxide and carbon dioxide, aldehydes.

5.3 Advice for firefighters

Special protective equipment for firefighters:
Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information: Hazchem-Code: 3Y

Heating will lead to pressure increase: danger of bursting and explosion. Keep containers cool with water spray.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Do not allow fire water to penetrate into surface or ground water.
Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe mist/vapours/spray. Avoid contact with the substance. In case of leakage, eliminate all ignition sources. If possible, eliminate leakage. Provide adequate ventilation. Wear appropriate protective equipment. Keep unprotected people away.
Take off contaminated clothing and wash it before reuse.
Educate and train employees in safe use of product.
Cordon off downwind area at risk and warn inhabitants.

6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains. Danger of explosion!

6.3 Methods and material for containment and cleaning up

In case of spills of large quantities:
Prevent spread over a wide area (e.g. by containment or oil barriers). Remove from the water surface (e.g. skimming, sucking). Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Final cleaning.

Additional information: Take precautionary measures against static discharges. Use explosion-proof equipment and non-sparking tools/utensils.
Do not enter empty storage tanks until measurements of hydrogen sulphide concentration and available oxygen have been carried out.

Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.
When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking. Take action to prevent static discharges.
Use only explosion-protected equipment/instruments. Do not weld.
In partially filled containers explosive mixtures may form.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Ground and bond container and receiving equipment. Prevent shock, rubbing and blows.
Store in a well-ventilated place. Keep container tightly closed. Keep only in original container.
Store in a cool dry place. Protect from heat and direct sunlight.
Storage temperature: < 55 °C.
Suitable material for containers/equipment: steel

Hints on joint storage:

Do not store together with: strong oxidizing agents, acids.
Keep away from food, drink and animal feedingstuffs.

Further details:

Use only antistatically equipped (spark-free) tools.
Wear antistatic work clothing. Do not enter empty storage tanks until measurements of hydrogen sulphide concentration and available oxygen have been carried out.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information:

Contains no substances with occupational exposure limit values.

DNEL/DMEL:

DNEL, workers, inhalative, systemic, long-term: 147 mg/m³
DNEL, workers, dermal, systemic, long-term: 42 mg/kg bw/d

DNEL, consumers, inhalative, systemic, long-term: 94 mg/m³
DNEL, consumers, dermal, systemic, long-term: 18 mg/kg bw/d
DNEL, consumers, oral, systemic, long-term: 18 mg/kg bw/d

8.2 Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment. Explosion protection required. Do not enter empty storage tanks until measurements of hydrogen sulphide concentration and available oxygen have been carried out.

Personal protection equipment

Occupational exposure controls

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Use filter type AX (= against vapours of low boiling organic substances) according to EN 14387.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection:

Protective gloves according to BS EN ISO 374-1.
Glove material: nitriles or PVC
Breakthrough time: >240min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to BS EN ISO 16321-1.

Body protection: Antistatic chemical resistant protective clothing.

General protection and hygiene measures:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe mist/vapours/spray. Take off contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
When handling large quantities, supply emergency spray.

Environmental exposure controls

Do not allow to enter into ground-water, surface water or drains.
Do not apply industrial sludge to natural soils.
Sealing of all relevant soil surfaces.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Colour: clear, colourless
Odour:	slight smell, petroleum
Odour threshold:	not determined
pH:	Not applicable
Melting point/freezing point:	<= -20 °C
Initial boiling point and boiling range:	242 °C (EU A2)
Flash point/flash point range:	> 55 °C (EU A9)
Evaporation rate:	Not applicable
Flammability:	Flammable liquid and vapour.
Explosion limits:	LEL (Lower Explosion Limit): reference: gas oils (including diesel fuels, home heating oils and gas oil blending streams) 0.60 Vol-% (By analogy) UEL (Upper Explosive Limit): reference: gas oils (including diesel fuels, home heating oils and gas oil blending streams) 7.50 Vol-% (By analogy)
Vapour pressure:	at 25 °C: approx. 87.1 Pa (EU A4) at 50 °C: Not determined
Vapour density:	Not determined
Density:	770 - 790 kg/m³ (EN ISO 3675 / EN ISO 12185)
Solubility:	Soluble in organic solvents
Water solubility:	at 25 °C: 0.075 mg/L (practically insoluble, EU A6)
Partition coefficient: n-octanol/water:	at 20 °C: approx. 8.4 log K(o/w) (EU A8) Based on the n-octanol/water partition coefficient accumulation in organisms is possible.
Auto-ignition temperature:	> 204 °C (EU A15)
Decomposition temperature:	Not determined
Dynamic viscosity:	Not determined
Viscosity, kinematic:	at 40 °C: 2.6 mm²/s (ASTM D 445)

Explosive properties: No data available
Oxidizing characteristics: No data available

9.2 Other information

Ignition temperature: No data available
Additional information: Relative density (20°C): 0.72 (EU A3)

SECTION 10: Stability and reactivity

10.1 Reactivity

Flammable liquid and vapour.
Vapours can form explosive mixtures with air.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.
Heating will lead to pressure increase: danger of bursting and explosion.

10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.
Protect from direct sunlight.
Prevent shock, rubbing and blows.

10.5 Incompatible materials

Strong oxidizing agents, acids

10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.
Thermal decomposition: Not determined

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD50 Rat, oral:	(read-across) > 2,000 mg/kg bw (EU Method B.1)
LC50 Rat, inhalative:	(read-across) 4,467 ppm (OECD 436)
LD50 Rat, dermal:	(read-across) > 2,000 mg/kg (EU Method B.3)
NOAEL Rat, oral:	> 1,000 mg/kg bw (OECD 408)

Toxicological effects:

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Repeated exposure may cause skin dryness or cracking. (EU Test B.4 - Rabbit, read-across).

Serious eye damage/irritation: Based on available data, the classification criteria are not met.
Specific symptoms in animal studies (EU Test B.5 - Rabbit, read-across): Not an irritant.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.
Specific symptoms in animal studies (EU Test B.4: Rabbit, read-across) - not sensitising.

Skin sensitisation: Based on available data, the classification criteria are not met.
Specific symptoms in animal studies (EU Test B.42 - guinea pig, EU Test B.6 - Mouse, read-across): not sensitising

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.
(OECD 471 (Ames test), read-across; EU-Test B.17, read-across)

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

Reproductive toxicity: Based on available data, the classification criteria are not met.
(OECD 416 read-across)

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

Aspiration hazard: Asp. Tox. 1; H304 = May be fatal if swallowed and enters airways.

Symptoms

In case of inhalation: Nausea, Headache, vomiting
In case of ingestion:
When swallowed and vomited immediately, aspiration into the lungs may occur resulting in chemical pneumonia or suffocation.
After contact with skin:
Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).
After eye contact: Irritation and redness may occur.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Fish toxicity:
LL50 Oncorhynchus mykiss: >1,000 mg/L/96h (OECD 203)
Daphnia toxicity:
EL50 Daphnia magna (Big water flea): >100 mg/L/48h (OECD 202)
EL50 Daphnia magna (Big water flea): >100 mg/L/21d (OECD 211)
NOEC Daphnia magna (Big water flea): 1 mg/L/21d (OECD 211)
Algae toxicity:
EL50 Desmodesmus subspicatus (green algae): growth rate >100 mg/L/72h (OECD 201)

12.2 Persistence and degradability

Further details:

Biodegradability: 82% /28d
Product is readily biodegradable. (OECD 301B)

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

Bioconcentration factor (BCF): 116.3

12.4 Mobility in soil

log Koc: >5.63

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

General information:

Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number:

13 07 03* = other fuels (including mixtures)
* = Evidence for disposal must be provided.

Recommendation:

Dispose of waste according to applicable legislation.

Package

Recommendation:

Dispose of waste according to applicable legislation.
Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:

UN 1202

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 1202, DIESEL FUEL

14.3 Transport hazard class(es)

ADR/RID:	Class 3, Code: F1
IMDG:	Class 3, Subrisk -
IATA-DGR:	Class 3



14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

III

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board:	ADR/RID: Hazard identification number 30, UN number UN 1202
Hazard label:	3
Special Provisions:	640K ADR664
Limited quantities:	5 L
EQ:	E1
Package - Instructions:	P001 IBC03 LP01 R001
Special provisions for packing together:	MP19
Portable tanks - Instructions:	T2
Portable tanks - Special Provisions:	TP1
Tank coding:	LGBF
Tunnel restriction code:	D/E

Sea transport (IMDG)

EmS:	F-E, S-E
Special Provisions:	-
Limited quantities:	5 L
Excepted quantities:	E1
Package - Instructions:	P001, LP01
Package - Provisions:	-
IBC - Instructions:	IBC03
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T2
Tank instructions - Provisions:	TP1
Stowage and handling:	Category A.
Properties and observations:	Immiscible with water.
Segregation group:	none

Air transport (IATA)

Hazard label:	Flamm. liquid
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y344 - Max. Net Qty/Pkg. 10 L
Passenger and Cargo Aircraft:	Pack.Instr. 355 - Max. Net Qty/Pkg. 60 L
Cargo Aircraft only:	Pack.Instr. 366 - Max. Net Qty/Pkg. 220 L
Special Provisions:	A3
Emergency Response Guide-Code (ERG):	3L

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

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: 3Y

No data available

National regulations - EC member states

List number: 700-571-2

Further regulations, limitations and legal requirements:

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: Physical hazards: Code P5c,
Quantity threshold 5 000 000 kg / 50 000 000 kg

Use restriction according to REACH annex XVII, no.: 3, 40 ,75

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Further information

Abbreviations and acronyms:

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
AS/NZS: Australian Standards/New Zealand Standards
Asp. Tox.: Aspiration toxicity
BCF: Bioconcentration Factor
Bw: Body weight
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EL50: Effective loading rate 50%
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
EN: European Standard
EQ: Excepted quantities
EU: European Union
Flam. Liq.: Flammable liquid
IATA: International Air Transport Association
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
IMO: International Maritime Organization
LC50: Median lethal concentration
LD50: Lethal dose 50%
LEL: Lower Explosion Limit
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
NOAEL: No Observed Adverse Effect Level
NOEC: No Observed Effect Concentration
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
PVC: Polyvinyl chloride
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
TRGS: Technical Rules for Hazardous Substances
UN: United Nations
UVCB: Substance of unknown or variable composition, complex reaction products or biological materials
vPvB: Very persistent and very bioaccumulative

Reason of change: Changes in section 1: Article number, Information about: REACH No
Changes in section 1.3: Details of the supplier of the safety data sheet (e-mail)
Changes in section 2: Labelling
Changes in section 8: PNEC
Changes in section 14: Transport information (Special Provisions: ADR/RID, ADN)
General revision

Date of first version: 4/4/2024

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

Most recent product information is available at:
https://sumdat.net/hrhkxz6b