



SAFETY DATA SHEET

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

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

1.1. Product identifier

Product name Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

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

Identified uses Use as a fuel,

1.3. Details of the supplier of the safety data sheet

Supplier

Oy Teboil Ab
 Äyritie 20, 01510 VANTAA
 0204 7001
 fuels-msds@teboil.fi

1.4. Emergency telephone number

National emergency telephone number +358-9-471 977, +358-9-4711, Poison Information Centre number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

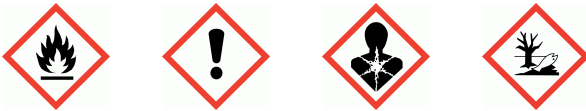
Physical hazards Flam. Liq. 3 - H226

Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Carc. 2 - H351 STOT RE 2 - H373 Asp. Tox. 1 - H304

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Pictogram



Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H332 Harmful if inhaled.
 H351 Suspected of causing cancer.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H411 Toxic to aquatic life with long lasting effects.

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P273 Avoid release to the environment.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P331 Do NOT induce vomiting.</p> <p>P261 Avoid breathing vapours.</p>
Contains	Fuels, diesel, Renewable hydrocarbons (diesel type fraction)

2.3. Other hazards

Other hazards Evaporates slowly., Risk of soil and ground water contamination.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Fuels, diesel	≥ 60 %
CAS number: 68334-30-5 EC number: 269-822-7 REACH registration number: 01-2119484664-27-XXXX	
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Carc. 2 - H351 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	
Renewable hydrocarbons (diesel type fraction)	≤ 40 %
CAS number: — REACH registration number: 01-2119450077-42-XXXX	
Classification Asp. Tox. 1 - H304	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments Mixture of renewable raw material fuel, petroleum product and additives. Contains kerosine streams and straight-run and hydrocracked gas oil streams.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms are severe or persist.
Ingestion	Do not induce vomiting. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.

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

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

General information Irritating to skin. May irritate eyes. Harmful by inhalation. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Flammable liquid and vapour. Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products Carbon dioxide (CO₂). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid inhalation of vapours and contact with skin and eyes. Wear adequate protective equipment at all operations.

For emergency responders Prevent unauthorized access. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharge.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment. Stop leak if safe to do so. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). Risk of soil and ground water contamination.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Immediately start clean-up of the liquid and contaminated soil. Small Spillages: Absorb spillage with sand or other inert absorbent. Pay attention to the fire and health hazards caused by the product.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

Usage precautions The product contains volatile substances which may spread in the atmosphere. Avoid heat, flames and other sources of ignition. Take precautionary measures against static discharges. All handling should only take place in well-ventilated areas. Avoid inhalation of vapours and contact with skin and eyes. Use personal protective equipment and/or local ventilation when needed. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Flammable liquid storage. Store in accordance with local regulations. Store in a demarcated banded area to prevent release to drains and/or watercourses. Take precautions against leakage by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations. Only store in correctly labelled containers. Use containers made of the following materials: Carbon steel. Stainless steel.

7.3. Specific end use(s)

Specific end use(s) Not known.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

-

Ingredient comments The individual limit values can be applied for the hydrocarbons. Diesel fuel as total hydrocarbons; ACGIH TLV®-TWA (8h) 100 mg/m³ (IFV).

PNEC Not available.

Fuels, diesel (CAS: 68334-30-5)

DNEL Workers - Inhalation; Short term systemic effects: 4300 mg/m³, (15 min), Aerosol
 Workers - Inhalation; Long term systemic effects: 68 mg/m³, (8h), Aerosol
 Workers - Dermal; Long term systemic effects: 2,9 mg/kg/day, (8h)
 Consumer - Inhalation; Short term systemic effects: 2600 mg/m³, (15 min), Aerosol
 Consumer - Inhalation; Long term systemic effects: 20 mg/m³, (24h), Aerosol
 Consumer - Dermal; Long term systemic effects: 1,3 mg/kg/day, (24h)

Renewable hydrocarbons (diesel type fraction)

DNEL Workers - Inhalation; Long term systemic effects: 147 mg/m³
 Workers - Dermal; Long term systemic effects: 42 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 94 mg/m³
 Consumer - Dermal; Long term systemic effects: 18 mg/kg/day

8.2. Exposure controls

Appropriate engineering controls All handling should only take place in well-ventilated areas. Use personal protective equipment and/or local ventilation when needed. Handle in accordance with good industrial hygiene and safety practice. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).

Eye/face protection Tight-fitting safety glasses. Face shield when needed.

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

Hand protection	Wear protective gloves. It is recommended that gloves are made of the following material: Nitrile rubber. Neoprene. Polyvinyl chloride (PVC). Viton rubber (fluoro rubber). The selected gloves should have a breakthrough time of at least 8 hours. Protection class 6. Protective gloves according to standards EN 420 and EN 374. Change protective gloves regularly.
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination. Wear anti-static protective clothing if there is a risk of ignition from static electricity.
Respiratory protection	Filter device/half mask Combination filter, type A2/P3. Filter device could be used maximum 2 hours at a time. Filter devices must not be used in conditions where the oxygen level is low (< 19 vol.-%). At high concentrations a breathing apparatus must be used (self-contained or fresh air hose breathing apparatus). Filter must be changed often enough. Respirators according to standards EN 140 and EN 141.
Environmental exposure controls	Take precautions against leakage by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Red.
Odour	Hydrocarbons. Mild.
Odour threshold	-
pH	-
Melting point	Cloud point $\leq 0^{\circ}\text{C}$
Initial boiling point and range	150...370°C (EN ISO 3405)
Flash point	> 55°C (EN ISO 2719)
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1 % Estimated value. Upper flammable/explosive limit: 6 % Estimated value.
Vapour pressure	< 1 kPa @ 40°C
Vapour density	-
Relative density	0,80...0,85 @ 15/4°C (EN ISO 12185)
Solubility(ies)	The product has poor water-solubility. < 50 mg/l @ 20°C
Partition coefficient	log Kow: > 3
Auto-ignition temperature	~ 240°C Estimated value.
Decomposition Temperature	-
Viscosity	Kinematic viscosity $\leq 4,5 \text{ mm}^2/\text{s}$ @ 40°C
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	Not known.
--------------------------	------------

SECTION 10: Stability and reactivity

10.1. Reactivity

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks and open flame.

10.5. Incompatible materials

Materials to avoid Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Harmful if inhaled.

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 18.33

Skin corrosion/irritation

Skin corrosion/irritation Fuels, diesel: Irritating to skin., (OECD 404), Renewable hydrocarbons (diesel type fraction):, Not classified., (EC B4), The product irritates mucous membranes and may cause abdominal discomfort if swallowed., May cause respiratory irritation.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met. (OECD 405, EC B5)

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met. (OECD 406, EC B6)

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met. (OECD 471, EC B10, B13/14, B17)

Genotoxicity - in vivo

Based on available data the classification criteria are not met. Fuels, diesel: (OECD 475)

Carcinogenicity

Carcinogenicity Suspected of causing cancer. Fuels, diesel: Product may contain cracked gas oil streams. Contains a substance/a group of substances which may cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met. Renewable hydrocarbons (diesel type fraction): (OECD 416)

Reproductive toxicity - development

Based on available data the classification criteria are not met. Fuels, diesel: (OECD 414)

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Fuels, diesel: May cause damage to organs through prolonged or repeated exposure. (OECD 410, 411, 413) Renewable hydrocarbons (diesel type fraction): Not classified. (OECD 408)

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Fuels, diesel

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 5000 mg/kg, Oral, Rat (OECD 401, 420)

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 4300 mg/kg, Dermal, Rabbit (OECD 434)

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ 3,6 - 5,4 mg/l, Inhalation, (4h), Rat (OECD 403)

ATE inhalation (vapours mg/l) 11.0

Renewable hydrocarbons (diesel type fraction)

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 2000 mg/kg, Oral, Rat (EC B1 tris)

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rat (EC B3)

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity Toxic to aquatic life with long lasting effects.

Fuels, diesel

Acute toxicity - fish LL₅₀, 96 hours: 21 mg/l, Onchorhynchus mykiss (Rainbow trout)
NOEL, 96 hours: 10 mg/l, Onchorhynchus mykiss (Rainbow trout)
WAF (OECD 203, EC C.1)

Acute toxicity - aquatic invertebrates EL50, 48 hours: 68 mg/l, Daphnia magna
NOEL, 48 hours: 46 mg/l, Daphnia magna
WAF (OECD 202, EC C.2)

Acute toxicity - aquatic plants EbL50, 72 hours: 10 mg/l, Pseudokirchneriella subcapitata
NOEL, 72 hours: 1 mg/l, Pseudokirchneriella subcapitata
WAF (OECD 201, EC C.3)

Acute toxicity - microorganisms EL50, 40 hours: > 1000 mg/l, Micro-organisms (wastewater sludge)
NOEL, 40 hours: 3,22 mg/l, Micro-organisms (wastewater sludge)
(QSAR)

Chronic toxicity - fish early life stage NOEL, 14 days: 0,08 mg/l, Onchorhynchus mykiss (Rainbow trout)
(QSAR)

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

Chronic toxicity - aquatic invertebrates NOEL, 21 days: 0,2 mg/l, Daphnia magna (QSAR)

Renewable hydrocarbons (diesel type fraction)

Acute toxicity - fish LL₅₀, 96 hours: > 1000 mg/l, WAF (OECD 203)

Acute toxicity - aquatic invertebrates EL50, 48 hours: > 100 mg/l, WAF (OECD 202)

Acute toxicity - aquatic plants EL50, 72 hours: > 100 mg/l, Fish WAF (OECD 201)

Acute toxicity - microorganisms EC₅₀, 30-180 minutes: > 1000 mg/l, Micro-organisms (wastewater sludge) (OECD 209)

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 1 mg/l, LOEC, 21 days: 3,2 mg/l, WAF (OECD 211)
Sediment organisms
NOEC, 10 days: 373 mg/kg, LOEC, 10 days: 1165 mg/kg, LC₅₀, 10 days: 1200 mg/kg, (OSPAR Protocols, Part A: Sediment Bioassay, 2005)

12.2. Persistence and degradability

Persistence and degradability The product contains volatile substances which may spread in the atmosphere. Can be photodegraded in the atmosphere.

Stability (hydrolysis) No significant reaction in water.

Fuels, diesel

Biodegradation Inherently biodegradable. (OECD 301F)

Renewable hydrocarbons (diesel type fraction)

Biodegradation Rapidly degradable (OECD 301B)

12.3. Bioaccumulative potential

Bioaccumulative potential Possibly bioaccumulative.

Partition coefficient log Kow: > 3

12.4. Mobility in soil

Mobility Evaporates slowly. The product has poor water-solubility. Product can penetrate soil until reaching the surface of ground water. The product contains substances which are bound to particulate matter and are retained in soil.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

Other adverse effects Product causes fouling, and direct contact produces harmful effects e.g. to birds and vegetation. Adsorbed hydrocarbon residues can be harmful to sediment organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1202

14.2. UN proper shipping name

Proper shipping name UN 1202 HEATING OIL, LIGHT
(ADR/RID)

14.3. Transport hazard class(es)

ADR/RID class 3

14.4. Packing group

ADR/RID packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
MARINE POLLUTANT

14.6. Special precautions for user

Tunnel restriction code (D/E)

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

Transport in bulk according to Not relevant.
Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

Teboil Heating Oil (-0/-7, -5/-15, -15/-25, -29/-38, -40/-44)

Abbreviations and acronyms used in the safety data sheet	ATE = Acute Toxicity Estimate DNEL = Derived No-Effect Level PNEC = Predicted No-Effect Concentration WAF = Water Accommodated Fraction
Key literature references and sources for data	Regulations, databases, literature, own research. Concawe Report No 6/05, 01/54, 11/10, 10/14. Chemical Safety Report Vacuum Gas Oils, Hydrocracked Gas Oils and Distillate Fuels, 2016. Chemical Safety Report Renewable hydrocarbons (diesel type fraction), 2013.
Training advice	DO NOT SIPHON PRODUCT BY MOUTH SUCTION.
Revision comments	Updated, sections: 1-16.
Revision date	28/06/2017
Supersedes date	04/04/2013
SDS number	5811
Hazard statements in full	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H332 Harmful if inhaled. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects.