THERM OIL 30

High quality heat transfer oil

Product description

THERMOIL 30 is a high-quality, specially developed, semi-synthetic heat transfer oil.

Application areas

THERMOIL 30 is a specially developed heat transfer oil for oil rigs, which is also suitable for other types of systems where a heat transfer oil with these properties are required.

Characteristics and advantages

THERMOIL 30 is a semisynthetic heat transfer oil. The very low flow temperature means that the product functions optimally with good pumpability at low temperatures. Due to its high flashpoint, THERMOIL 30 can be used to advantage at high operating temperatures. THERMOIL 30 can be used within a very wide temperature range.

Tests and approvals

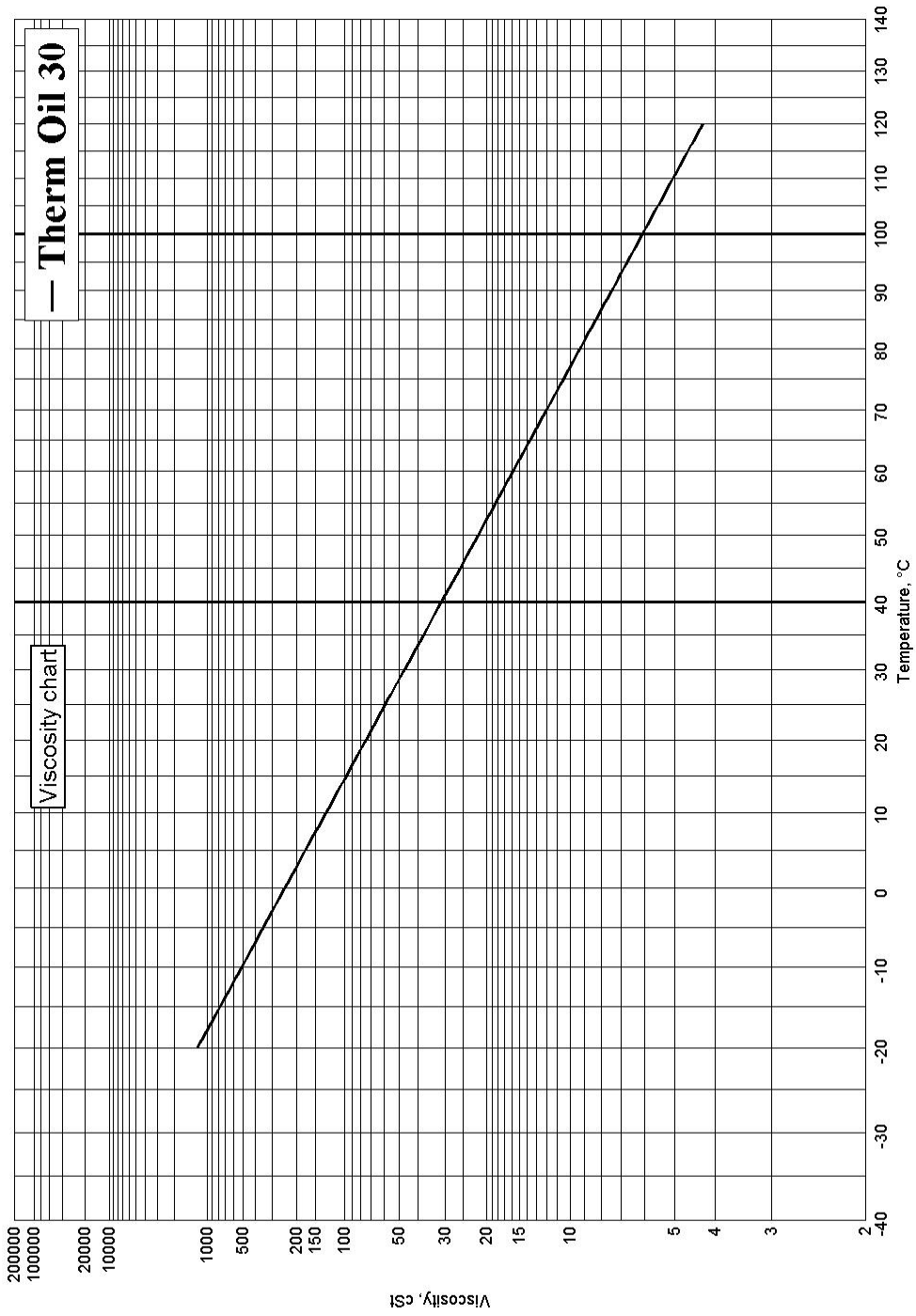
Handling and storage

Avoid skin contact. In the event of contact with skin, wash with soap and water. Dispose of used oil at a recycling station or equivalent. Safety data sheets are available on www.statoillubricants.com or supplied on request.

Typical Data

Characteristics	Typical value	Unit	Method
Density at 15°C	837	kg/m³	ISO 12185
Flash point COC	237	°C	ISO 2592
Pour point	-33	°C	ISO 3016
Viscosity at 40°C	30.5	mm²/s	ISO 3104

Revision date 19-Aug-2014



Revision date 19-Aug-2014

Safety Data Sheet

Issue Date 09-Apr-2013 **Revision date** 20-Feb-2015 **Version** 1

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

1.1. Product identifier

Product code 968
Product name **THERM OIL 30**

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

Recommended Use Lubricant.

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company Name
Statoil Fuel & Retail Lubricants Sweden AB,
Box 194, 149 22 Nynäshamn,
Sweden,
+46 8 429 60 00

Supplier
Statoil Fuel & Retail Lubricants Sweden AB,
Box 194, 149 22 Nynäshamn,
Sweden
+46 8 429 60 00

For further information, please contact
Contact Point HSE Advisor
Email address BASP_MD_RD_HSEA@statoilfuelretail.com
Company Phone Number +46 8 429 60 00

1.4. Emergency telephone number

Emergency telephone - §45 - (EC)1272/2008	
Europe	**112**
Czech Republic	+420 224 91 92 93/+420 224 91 54 02 (Poison Information)
Denmark	+45 82 12 12 12 (Poison Information)
Finland	+358 09 471 977 (Poison Information)
Latvia	+ 371 7042468 (Poison Information)
Lithuania	+370 5 236 20 52 (Poison Information)
Norway	+47 22 59 13 00 (Poison Information)
Poland	+48 426 314 502 (Poison Information)
Slovakia	+ 421 2 5465 2307 (Poison Information)
Sweden	+46 8 33 70 43 (Emergency Responce Center)
Estonia	+372 626 9390 (Poison Information)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Classification according to 67/548/EEC or 1999/45/EC
This product does not meet the classification requirements of the current legislation

Full text of R-phrases: see section 16

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.3. Other hazards

No information available

SECTION 3: Composition/information on ingredients

3.1 Substances

Only hazardous substances above thresholds are shown below

Full text of R-phrases: see section 16

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

Eye Contact Wash with plenty of water. If eye irritation persists: get medical advice/attention.

Skin Contact Remove contaminated clothing and shoes. Wash skin with soap and water. Wash contaminated clothing before reuse.

Ingestion Clean mouth with water. Do NOT induce vomiting. Potential for aspiration if swallowed. Get medical attention.

Inhalation Remove to fresh air. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment as required.

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

Symptoms None under normal use conditions.

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

Note to physicians Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use CO2, dry chemical, or foam.

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special Hazard
Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Cool drums with water spray.

5.3. Advice for firefighters

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protection recommended in Section 8.

Extremely slippery when spilled.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4. Reference to other sections

Other information
See Section 12: Ecological information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Extremely slippery when spilled.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
Store in a dry place. Store in a closed container. Protect from moisture.

7.3. Specific end use(s)

Specific use(s)
Lubricant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical name	Sweden	Denmark	Norway	Finland	Estonia
Oil mist/smoke	NGV 8 h: 1 mg/m³, KTV 15 min: 3 mg/m³	8h: 1 mg/m³	8h: 1 mg/m³	8h: 5 mg/m³	TWA 8h: 1 mg/m³
Chemical name	**Latvia**	**Lithuania**	**Poland**	**Russia**	**Slovakia**
Oil mist/smoke	8h: 5 mg/m³	IPRV 8h: 1 mg/m³, TPRV 15 min: 3 mg/m³	NDS: 8h: 5 mg/m³, NDSCh, 15 min, 10 mg/m³	5 mg/m³	8h: 5 mg/m³
Chemical name	**Czech Republic**	**Germany**	**Hungary**	**Bulgaria**	**Ukraine**
Oil mist/smoke	PEL: 5 mg/m³ NPK-P: 10 mg/m³	-	-	-	-

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls None under normal use conditions.

Personal protective equipment

Eye/face Protection Wear safety glasses with side shields (or goggles).

Hand protection Wear protective nitrile rubber gloves, Because specific work environments and material handling practices vary, safety proceduresshould be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even thebest chemically resistant gloves will break down after repeated chemical exposures).Gloves should be chosen in consultation with the supplier / manufacturer and taking account ofa full assessment of the working conditions.

Body protection Wear suitable protective clothing.

Respiratory Protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required, In case of inadequate ventilation wear respiratory protection.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Clear	**Odor**	Oil
Color	Yellow	**Odor Threshold**	Not applicable

Property	Values	Remarks • Method
pH		Not applicable
Melting Point/Freezing Point		Not applicable
Boiling point/boiling range		No information available
Flash Point		
Flash point COC	237 °C	ISO 2592
Flash point PM		Not applicable
Evaporation Rate		Not applicable
Flammability (solid, gas)		Not applicable

Flammability Limits in Air		
Upper Flammability limits		Not applicable
Lower Flammability Limit		Not applicable
Vapor pressure @20°C (kPa)	< 0.01	
Vapor Density		Not applicable
Relative Density		No information available
Water Solubility	Negligible	
Solubility(ies)	Soluble in Solvent	
Partition Coefficient (n-octanol/water)	> 3	
Autoignition Temperature		No information available
Decomposition Temperature		No information available
Kinematic Viscosity		
Viscosity at 40°C Typical	30.5 mm^2/s	ISO 3104
Viscosity at 100°C Typical		No information available
Dynamic viscosity		No information available
Explosive Properties		Not applicable
Oxidizing Properties		Not applicable

9.2. Other information

Molecular Weight		No information available
VOC Content(%)		No information available
Density	837 kg/m^3	ISO 12185
Bulk density		No information available
Research Octane Number		Not applicable
Sulphur Content		Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Not reactive.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

None under normal use conditions. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Product Information

Product does not present an acute toxicity hazard based on known or supplied information. Used product can contain harmful contaminants.

Inhalation	Inhalation of vapors in high concentration may cause irritation of respiratory system.
Eye Contact	Contact with eyes may cause irritation.
Skin Contact	Prolonged contact may cause redness and irritation. May cause skin irritation and/or dermatitis. Product that under high pressure has been forced under the skin, may causae serious cell damage/death under the skin.
Ingestion	Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

skin corrosion/irritation	None known.
Serious eye damage/eye irritation	None known.
sensitization	None known.
Germ cell mutagenicity	None known.
Carcinogenicity	None known.
Reproductive Toxicity	None known.
developmental toxicity	None known.
Teratogenicity	None known.
STOT - single exposure	None known.
STOT - repeated exposure	None known.
Neurological effects	None known.
Target organ effects	None known.
aspiration hazard	None known.

SECTION 12: Ecological information

12.1. Toxicity

Not harmful to aquatic organisms. Expected LC/EC 50 value >100 mg/l

12.2. Persistence and degradability

Potentially degradable, but will persist in the environment for long periods.

12.3. Bioaccumulative potential

Contain components with potential to bioaccumulate (logPow >3).

12.4. Mobility in soil

Mobility in soil
After release, adsorbs onto soil.

12.5. Results of PBT and vPvB assessment

This product is not, or does not contain, a substance that is a PBT or a vBvP.

12.6. Other adverse effects

An oilfilm may cause physical damage to organisms and disturb the transportation of oxygen in the intermediate zone between air/water or air/soil

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from Residues / Unused Products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Other information

Provisions for waste transmitters:
Different types of hazardous waste shall not be mixed with each other. Wastes can be mixed if the purpose is to improve safety during disposal or recycling or otherwise is done in a manner acceptable to protect the environment. Waste may be transported professionally only by those who have special permission. Solvent and oil waste under certain given amounts may be transported without special permission, after notification to the County Board. Contact the County Board for further information.

Discharge Instructions:
Packs marked with a skull or environmental hazard symbol and risk phrase 50/53 should always be disposed of as hazardous waste. Other packs should be emptied well before they can be recycled or reconditioned. The contents may need to be disposed of as hazardous waste. Draining is best carried out at room temperature. The pack is placed upside down inclined somewhat, about 10 degrees, the runoff should be in such a way that the lowest point of the pack is the exit. Residual content should be collected and added to the process there the product is used. For steel drums especially the runoff must be at room temperature (min 15 ° C). Wait until the pack is drip dry. Do not reseal the packs after runoff. Note in particular the risks involved when emptying containers containing flammable liquids. Emptied packages should be ventilated in a safe place away from sparks and fire. Residues may cause an explosion. Do not puncture, cut or weld in uncleaned packages, containers or barrels. If possible, packs contained water-soluble product should be rinsed thoroughly (3 times) before emptying. The rinse water should, if possible, be used in the process there the product is used.

Classification of wastes:
Waste transmitters is required to classify the waste. All waste is identified by a six digit EWC code. The codes are listed in the Waste Regulation. The codes for oil waste are based on usage and the base oil. Information about the intended use is given in the safety data sheet, section 1. Oil waste is always hazardous waste. Examples of EWC codes for oil waste:120107: mineral-based machining oils free of halogens130111: Synthetic Hydraulic Oils130105: Non-chlorinated emulsions130208: other engine, gear and lubricating oils

Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IMDG

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 environmental hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 environmental hazard	Not applicable
14.6 Special Provisions	None

ICAO (air)

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 environmental hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 environmental hazard	Not applicable
14.6 Special Provisions	None

SECTION 15: Regulatory information

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

National regulations This safety data sheet is created with use of legislation & regulation valid for the European Union, for example consolidated versions of REACh,1907/2006; CLP, 1272/2008; DPD 1999/45 and national legislation.

Danish PR number: -

International Inventories

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies

ENCS	Complies
IECSC	Complies
AICS	Complies
KECL	Complies

Legend

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3
No information available

Full text of H-Statements referred to under sections 2 and 3
No information available

Key or legend to abbreviations and acronyms used in the safety data sheet
vBvP = Very Bioaccumulative and very Pollutant.
PBT = Persistant Bioccumulative Toxic chemical
REACh = Research Evaluation Authorization and Restriction of Chemicals
CLP = Classification, Labelling and Packaging
DPD = Dangerous Preparations Directive
VOC=Volatile Organic Compound

Issue Date	09-Apr-2013
Revision date	20-Feb-2015
Revision Note	Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

End of Safety Data Sheet

Typvärden för Therm Oil 30

Analysis		Therm Oil 30
Density at -14°C	kg/m^3	854
Density at 15°C	kg/m^3	836
Density at 40°C	kg/m^3	820
Density at 100°C	kg/m^3	783
Density at 180°C	kg/m^3	733
Density at 230°C	kg/m^3	702
Constant for Density calulation	kg/m^3	$6,24*10^{-4}$
Dynamic Viscosity at - 14°C	mPas	598
Kinematic Viscosity at - 14°C	cSt	695
Dynamic Viscosity at 40°C (mPas)	mPas	25
Kinematic Viscosity at 40°C (cSt)	cSt	31
Dynamic Viscosity at 100°C (mPas)	mPas	4,74
Kinematic Viscosity at 100°C (cSt)	cSt	6,05
Dynamic Viscosity at 180°C (mPas)	mPas	1,47
Kinematic Viscosity at 180°C (cSt)	cSt	1,99
Dynamic Viscosity at 230°C (mPas)	mPas	0,91
Kinematic Viscosity at 230°C (cSt)	cSt	1,30
Viscosity Index		146

STATOIL

Analysis		Therm Oil 30
Flash Point COC	°C	236
Pour Point	°C	-36
Heat Capacity at -14 °C	kJ/kg*K	2,00
Heat Capacity at 180 °C	kJ/kg*K	2,65
Vol. Heat Capacity at 180 °C	kJ/m^3*K	1924
Heat Capacity at 210 °C	kJ/kg*K	2,76
Heat Capacity at 230 °C	kJ/kg*K	2,81
Vol. Heat Capacity at 230 °C	kJ/m^3*K	1950
Thermal Conductivity at -14 °C	W/m*K	0,165
Thermal Conductivity at 180 °C	W/m*K	0,144
Thermal Conductivity at 230 °C	W/m*K	0,140
Max. Bulk Temperature	°C	300
Max. Film oper. Temperature	°C	345
Autoignition Temperature	°C	348
Ramsbottom Carbon Residue	wt%	0,003
Thermal Decomposition Temperature	°C	324
Mid Boiling Point	°C	>430
Surface Tension	dyn/cm	29,6
Molecular Weight (for the synthetic part)	kg/kmol	580

Heat Capacity – Therm Oil 30