

SAFETY DATA SHEET

In accordance with 453/2010 and 1272/2008

(All references to EU regulations and directives are abbreviated into only the numeric term)

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

1.1. Product identifier

Trade name

VTV-væske (Heat Transfer Fluid - HTF)

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

Identified uses

Antifreeze

1.3. NASJONAL PRODUSENT/IMPORTØR

HeatWork AS, P.O. Box 353, 8505 NARVIK, Norway. Telephone +47 76 96 58 90

E-post: post@heatwork.com

1.4. Details of the supplier of the safety data sheet

MANUFACTURER IN THE EU/EEA, IMPORTER TO EU/EAA

Statoil Fuel & Retail Lubricants Sweden AB,

Box 194, 149 22 Nynäshamn, Sweden,

+46 8 429 60 00

1.5. Emergency telephone number

In case of emergency contact toxicological information, emergency tel 112 (within Europe) or 911 (for USA and Canada). For other countries, use the built-in emergency number in your cell phone

For non-emergency poison information, see <http://www.who.int/ipcs/poisons/centre/en/>

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture. Classification in accordance with 1272/2008

Upon assessment, this mixture is not classified as hazardous according to 1272/2008.

Classification in accordance with 1999/45/EG

This product is assessed and not classified as hazardous.

2.2. Label elements

Label information in accordance with 1272/2008

Hazard pictograms Not applicable

Signal words Not applicable

Hazard statements Not applicable

Label information in accordance with 1999/45/EG

C.f. section 16.

2.3. Other hazards

Not relevant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is composed of a homogeneous aqueous solution.

3.2. Mixtures

Note that the table shows known hazards of the ingredients in a pure form. These hazards are reduced or eliminated when mixed or diluted, c.f. Section 16d.

Constituent	Classification	Concentration
WATER		
CAS No 7732-18-5 EC No 231-791-2	- ;-	40 - 60%
PROPYLENE GLYCOL		
CAS No 57-55-6 EC No 200-338-0	- ;-	40 - 60%
BENZYLDIETHYL (2,6-XYLYLCARBAMOYLMETHYL)-AMMONIUM BENZOATE		
CAS-Nr 3734-33-6 EG-nummer 223-095-2	Acute Tox 4oral, Skin Irrit 2, Eye Irrit 2, STOT SE 3resp; H302, H315, H319, H335 Xn; R22 R36/37/38	< 0,1%

Sum of max concentrations 100%

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complement used in the calculation of the hazards of this mixture, c.f. Section 16b

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Generally

No special measures are considered to be necessary. If symptoms do occur however, call a doctor/physician.

Upon breathing in

Let the injured person rest in a warm place with fresh air; If symptoms persist, call a doctor/physician.

Upon contact with the eyes

If possible immediately remove contact lenses.

Immediately rinse with lukewarm water for 15 - 20 minutes with eyes kept wide open; If symptoms persist, call a doctor/physician.

Upon skin contact

Normal washing of the skin is considered sufficient; If nevertheless symptoms do occur, contact a physician.

Remove contaminated clothes.

Upon ingestion

First rinse the mouth thoroughly with a lot of water and SPIT OUT the water. Then drink at least 1/2 liter of water and call a doctor/physician. Do NOT induce vomiting.

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

Information on symptoms are ambiguous or missing for this product.

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

Not relevant.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Recommended extinguishing agents

Extinguish with powder or carbon dioxide. Fire-fighting personnel may use dispersed water jets.

Unsuitable extinguishing agents

May not be extinguished with water dispersed under high pressure.

5.2. Special hazards arising from the substance or mixture

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning, and, in case of incomplete combustion, aldehydes and other toxic, harmful, irritant or environmentally harmful substances.

The product is not hazardous in the flammable sense.

The product does not oxidise.

5.3. Advice for fire-fighters

In case of fire use a respirator mask.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use suitable allergy-tested protective gloves when cleaning up.
Gas mask with an A type filter (brown) may be required when decontaminating spillage.
Do not inhale the product and avoid exposure to skin and eyes.

6.2. Environmental precautions

Do not allow the product to flow into the sewer; if this should occur however, contact your local sewer service immediately.

Avoid emissions into soil, water or air.

Upon substantial spillage 1 - 50 tonnes into a river or lake, contact the emergency services, tel 112.

6.3. Methods and material for containment and cleaning up

Adsorb the liquid with an inert adsorbent, Vermiculite, for example. Collect the material for disposal at a waste disposal facility. Contaminated products should be treated as chemical waste and declared as non-hazardous goods.

6.4. Reference to other sections

Not applicable

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Treat the substance as potentially harmful to health. This product should be stored well out of reach of young children and kept safely apart from products intended for consumption. Do not eat, drink or smoke in premises where this product is stored.

7.2. Conditions for safe storage, including any incompatibilities

Do not store above normal room temperature.

Handle in premises which have modern ventilation standards.

Store in a well-ventilated area, not above eye-level.

Store only in the original package.

7.3. Specific end use(s)

Not relevant.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. National limit values, United Kingdom

All ingredients (cf. Section 3) lack occupational exposure limit values.

8.2. Exposure controls

In terms of minimizing risks, no special attention is needed for this product besides the general obligations that follow EU directive 89/391 and national occupational legislation.

Eye protection should be worn if there is any danger of direct exposure or splashing.

Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks. Very sensitive persons can use gloves labelled "Low Chemical resistant" or "Waterproof" or with the pictogram indicated here.

Protective breathing equipment should only be required in extreme work-situations. Consult the manufacturer if this is the case.

For limitation of environmental exposure, see Section 12.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a) Appearance	Form: liquid
	Colour: blank
b) Odour	Not applicable
c) Odour threshold	Not applicable
d) pH	Not applicable
e) Melting point/freezing point	Not applicable
f) Initial boiling point and boiling range	Not applicable
g) Flash point	Not applicable
h) Evaporation rate	Not applicable
i) Flammability (solid, gas)	Not applicable
j) (Upper/lower flammability or explosive limits	Not applicable
k) Vapour pressure	Not applicable

l) Vapour density	Not applicable
m) Relative density	Not applicable
n) Solubility	Solubility in water Unlimited solubility
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	Not applicable
q) Decomposition temperature	Not applicable
r) Viscosity	Not applicable
s) Explosive properties	Not applicable
t) Oxidising properties	Not applicable

9.2. Other information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Not indicated

10.5. Incompatible materials

Not indicated

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects. General or unspecific toxicity. The product is not classified as toxic.

Acute effects: Not classified as an acutely toxic substance.

Harmfulness: The product is not classified as harmful to health.

Repeated dose toxicity: To the best of our knowledge, no chronic effects have been reported for this product.

Carcinogenicity: To the best of our knowledge, no carcinogenic effects have been reported for this product.

CMR effects: To the best of our knowledge, no mutagenic or otherwise genetic or reproductive toxic effects have been reported for this product.

Sensibilisation: Hypersensitive reactions cannot be ruled out for persons who are overtly sensitive.

Corrosive and irritating effects: The product is not corrosive. Minor irritation cannot be ruled out for persons who are prone/susceptible.

Synergism and antagonism: To the best of our knowledge, no synergistic effects have been reported for this product or any of its ingredients.

Effect on judgement and other psychological effects: To the best of our knowledge this product does not affect discernment if used in the manner intended.

Effect on human microflora: Effects on human micro flora have not been proven, or are negligible.

Relevant toxicological properties

PROPYLENE GLYCOL

LD50 Orally rat ca 20000 mg/kg

LD50 Dermally rabbit = 20800 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

This product consists of easily degradable naturally occurring or nature identical substances, mainly obtained from renewable sources, whereby the global environmental load may be considered to be negligible. In the local environment minor ecological effects may occur in case of large discharge.

12.2. Persistence and degradability

The product degrades in the natural environment.

12.3. Bioaccumulative potential

Neither this product, nor its contents, accumulates in nature.

12.4. Mobility in soil

No information about mobility in the nature exists but there is no reason to suppose the product to be ecologically harmful because of this.

12.5. Results of PBT and vPvB assessment

Not indicated

12.6. Other adverse effects

Not indicated

SECTION 13: DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Waste handling for the product

The product is not classified as hazardous waste.

Also take local regulations for dealing with waste into account.

Cf. also national waste regulations.

Recycling of the product

This product is not usually recycled.

Transportation of waste

Waste class J(0) - Does not have adverse effects on health or the environment.

SECTION 14: TRANSPORT INFORMATION

This product is only supposed to be transported by road or railway and just the transport regulations ADR/RID thus apply. If other means of transport are to be used, contact the publisher of this safety data sheet.

14.1. UN number

Not classified as dangerous goods

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Not applicable.

15.2. Chemical safety assessment

Chemical safety report according to 1907/2006 Annex I is not required for this product.

SECTION 16: OTHER INFORMATION**16a. Indication of where changes have been made to the previous version of the safety data sheet****Revisions of this document**

This is the first version.

16b. Legend to abbreviations and acronyms used in the safety data sheet**Full texts for Hazard Class and Category Code mentioned in section 3**

No phys haz	Non-assigned physical hazard
Combust Liq	Combustible liquids with flash points > 93 C
No tox haz	Not classified as toxic
No environmental hazard	Not classified as being environmentally hazardous
Acute Tox 4oral	Acute toxicity (Category 4 oral)
Skin Irrit 2	Causes irritation (Category 2)
Eye Irrit 2	Irritates eyes (Category 2)
STOT SE 3resp	Specific organ toxicity - single exposure; May cause respiratory irritation (Category 3 resp)

Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

16c. Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2013-02-19.

Where such data was lacking, on the second hand the documentation on which this official classification is based was used, e.g. IUCLID (International Uniform Chemical Information Database). On the third hand, information was used from reputable international chemical suppliers, and on the fourth hand from other available information, e.g. safety data sheets from other suppliers or information from non-profit associations, whereby the reliability of the source was judged by an expert. If, in spite of this, reliable information was not found, the hazards were judged by expert opinions based on the known properties of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

453/2010	COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
1272/2008	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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
1999/45/EG	DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations
89/391	COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work
1907/2006	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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC Annex I

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

The calculation of the hazards of this mixture has been performed as an evaluation by applying a weight of evidence determination using expert judgement in accordance with 1272/2008 Annex I, weighing all available information having a bearing on the determination of the hazards of the mixture, and in accordance with 1907/2006 Annex XI.

16e. List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements

Full text for risk phrases mentioned in section 3

R22	Harmful if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin Full texts for hazard statements mentioned in section 3
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

Warning for misuse

This product is not expected to cause severe harm to humans or the environment. However the manufacturer, the distributor or the supplier cannot be responsible for unusual or criminal use of the product.

Other relevant information

Label information in accordance with 1999/45/EG

Hazard symbol	Not applicable
R-phrases	Not applicable
S-phrases	Not applicable