according to Regulation (EC) No 1907/2006

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

1.1. Product identifier

DW-Therm HT (heat transfer fluid)

CAS No: 63674-30-6 EC No: 400-370-7

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

Use of the substance/mixture

Heat transfer fluid for industrial use with the Unistat in a hydraulically sealed system

1.3. Details of the supplier of the safety data sheet

Company name: DWS Dr. Wilharm Synthesetechnik

Street: Trentiner Ring 30
Place: D-86356 Neusaess

Telephone: 0821 4504230 Telefax: 0821 4862519

e-mail: info@dws-synthese.de
Contact person: Dr. Thomas Wilharm
Internet: www.dws-synthese.de

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard Statements:

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard statements

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P391 Collect spillage.

P273 Avoid release to the environment.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No Index No REACH No			
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
	1,2,3,4-Tetrahydro(1-phenylethyl)-naphthalin			99 %
	Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 1; H400 H410			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

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4.1. Description of first aid measures

After inhalation

Provide fresh air.

After contact with skin

Wash with plenty of water.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion

Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Move victim out of danger zone. None High power water jet.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

The danger areas must be delimited and identified using relevant warning and safety signs.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes and clothes. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

A static inert gas blanket can used on the expansion vessel (s) of the Unistat. Above a working temperature of 170°C an inert gas blanket must be used.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

7.3. Specific end use(s)

Heat transfer fluid for industrial use with the Unistat in a hydraulically sealed system

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls



Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection

Wear eye protection/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid Colour: orange

Test method

pH-Value: not determined

Changes in the physical state

Melting point:

-34 °C DIN 51583

Initial boiling point and boiling range:

353 °C ASTM D 1120

Flash point:

194 °C ASTM D 93

Flammability

Solid: not applicable
Gas: not applicable
Lower explosion limits: 0,39 vol. %
Upper explosion limits: 4,59 vol. %

Ignition temperature: 385 °C ASTM E 659

Auto-ignition temperature

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapour pressure: not determined

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Density: not determined

Water solubility: The study does not need to be conducted because the substance is known to be

insoluble in water.

Solubility in other solvents

not determined

Partition coefficient: not determined

Viscosity / kinematic: 30,8 mm²/s DIN 51562

(at 25 °C)

Vapour density: not determined Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.2. Chemical stability

Product is stable under standard conditions.

10.3. Possibility of hazardous reactions

none Polymerization.

10.4. Conditions to avoid

Decomposition could be take place by higher temperatures.

10.5. Incompatible materials

HNBR seals are not resistant.

10.6. Hazardous decomposition products

Decomposition products depend upon temperatur, air supply and the presence of other substanes

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

CAS No	Chemical name	Chemical name					
	Exposure route	Dose		Species	Source	Method	
	1,2,3,4-Tetrahydro(1-	1,2,3,4-Tetrahydro(1-phenylethyl)-naphthalin					
	oral	LD50 mg/kg	>2000	Rat			
	dermal	LD50 mg/kg	>2000	Rabbit			

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name						
	Aquatic toxicity Dose [h] [d] Species Source Method						
	1,2,3,4-Tetrahydro(1-phenylethyl)-naphthalin						
	Acute algae toxicity	ErC50 >0,07 mg/l	96 h Pseudokirchneriella subcapitata				

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12.2. Persistence and degradability

Not easily bio-degradable (according to OECD-criteria).

CAS No	Chemical name						
	Method Value d Source						
	Evaluation						
	1,2,3,4-Tetrahydro(1-phenylethyl)-naphthalin						
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C 6 % 28						
	OECD 302B / ISO 9888 / EEC 88/302 annex V, C.9	>40 %	28				

12.3. Bioaccumulative potential

On the basis of existing data about the elimination/degradation and bioaccumulation potential longer term damage to the environment cannot be ruled out.

Partition coefficient n-octanol/water

CAS No	Chemical name	
	1,2,3,4-Tetrahydro(1-phenylethyl)-naphthalin	5 - 7

BCF

CAS No	Chemical name	BCF	Species	Source
	1,2,3,4-Tetrahydro(1-phenylethyl)-napht halin	>3000		

12.4. Mobility in soil

This material is believed to be relatively immobile in soil

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



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Classification code: M6

Special Provisions: 274 335 601

Limited quantity: 5 L
Transport category: 3
Hazard No: 90
Tunnel restriction code: E

Other applicable information (land transport)

F1

Inland waterways transport (ADN)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Classification code: M6

Special Provisions: 274 335 601

Limited quantity: 5 L

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Special Provisions: 274, 335
Limited quantity: 5 L
EmS: F-A, S-F

Other applicable information (marine transport)

E1

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Special Provisions: A97 A158 Limited quantity Passenger: 30 kg G

IATA-packing instructions - Passenger: 964

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IATA-max. quantity - Passenger: 450 L
IATA-packing instructions - Cargo: 964
IATA-max. quantity - Cargo: 450 L

Other applicable information (air transport)

E1 : Y964

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



14.6. Special precautions for user

No information available.

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 specific for the substance or mixture

EU regulatory information

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile

work protection guideline' (94/33/EC).

Water contaminating class (D): 3 - highly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of

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processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)