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

1.1. Product identifier

DW Therm (heat transfer fluid)

Further trade names

DW-Therm does not require a safety data sheet in accordance with Article 31 of REACH Regulation, the present information is for general information only.

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 45042317
e-mail: info@dws-synthese.de
Contact person: Dr. Thomas Wilharm
Internet: www.dws-synthese.de

1.4. Emergency telephone number:

GIZ-Nord, Göttingen, Germany +49 551 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

This substance is not classified as hazardous in accordance with GB CLP Regulation.

2.2. Label elements

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>EC No</th>
<th>Index No</th>
<th>REACH No</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alkoxy Silanes</td>
<td></td>
<td></td>
<td></td>
<td>99.9 %</td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air.
After contact with skin
Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

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

After ingestion
Let water be drunken in little sips (dilution effect).
Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed
not known

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically. not known

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
In case of fire: Wear self-contained breathing apparatus.

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

General advice
Use personal protection equipment.

6.2. Environmental precautions
Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

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

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

6.4. Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Provide adequate ventilation as well as local exhaust at critical locations.

Advice on protection against fire and explosion
A static inert gas blanket can be 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. Store in a dry place.

Hints on joint storage
not known

7.3. Specific end use(s)
Heat transfer fluid for industrial use with the Unistat in a hydraulically sealed system

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, drink, smoke, sniff. Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection
Wear eye/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
Use of 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td>not determined</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
<td>not applicable</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
<td>not applicable</td>
</tr>
<tr>
<td>pH-Value</td>
<td></td>
<td>not determined</td>
</tr>
<tr>
<td>Changes in the physical state</td>
<td></td>
<td>not applicable</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>-90 °C DIN 53736</td>
<td></td>
</tr>
<tr>
<td>Boiling point or initial boiling point and</td>
<td>236 °C OECD 103</td>
<td></td>
</tr>
<tr>
<td>boiling range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>101 °C DIN EN ISO 2719</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>Solid/liquid: not applicable</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>The product is not: Explosive.</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limits</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limits</td>
<td>not determined</td>
<td></td>
</tr>
</tbody>
</table>
Safety Data Sheet
according to UK REACH Regulation

DW Therm (heat transfer fluid)
Revision date: 22.05.2023 Product code: 26

Auto-ignition temperature: 265 °C
Decomposition temperature: not determined

**Oxidizing properties**
The product is not: oxidising.
Vapour pressure: not determined
Density (at 20 °C): 0.879 g/cm³ DIN 53420
Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

**Solubility in other solvents**
Partition coefficient n-octanol/water: not determined
Viscosity / kinematic:
(at 40 °C) 1.57 mm²/s DIN EN ISO 3104
Relative vapour density: not determined
Evaporation rate: not determined

**9.2. Other information**
Solid content: not determined
conductivity: 0.003 µS/cm

**SECTION 10: Stability and reactivity**

**10.2. Chemical stability**
Do not mix with acids.

**10.3. Possibility of hazardous reactions**
not known

**10.4. Conditions to avoid**
moisture.

**10.5. Incompatible materials**
Aluminium. non-ferrous metal

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in GB CLP Regulation**
Toxicokinetics, metabolism and distribution
not known
Acute toxicity
not known
Sensitising effects
not known

Further information
The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information**

**12.1. Toxicity**
The product is not: Ecotoxic.

**12.2. Persistence and degradability**
The product has not been tested.
12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

The product has not been tested.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

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

List of Wastes Code - residues/unused products

060899 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of silicon and silicon derivatives; wastes not otherwise specified

List of Wastes Code - used product

060899 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of silicon and silicon derivatives; wastes not otherwise specified

List of Wastes Code - contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.
Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.
14.6. Special precautions for user
   not known
14.7. Maritime transport in bulk according to IMO instruments
   No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

   EU regulatory information
   Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)
   Additional information
   not relevant

   National regulatory information
   Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment
   For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms
   CLP: Classification, labelling and Packaging
   REACH: Registration, Evaluation and Authorization of Chemicals
   GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
   UN: United Nations
   CAS: Chemical Abstracts Service
   DNEL: Derived No Effect Level
   DMEL: Derived Minimal Effect Level
   PNEC: Predicted No Effect Concentration
   ATE: Acute toxicity estimate
   LC50: Lethal concentration, 50%
   LD50: Lethal dose, 50%
   LL50: Lethal loading, 50%
   EL50: Effect loading, 50%
   EC50: Effective Concentration 50%
   ErC50: Effective Concentration 50%, growth rate
   NOEC: No Observed Effect Concentration
   BCF: Bio-concentration factor
   PBT: persistent, bioaccumulative, toxic
   vPvB: very persistent, very bioaccumulative
   ADR: Accord européen sur le transport des marchandises dangereuses par Route
   (European Agreement concerning the International Carriage of Dangerous Goods by Road)
   RID: Regulations concerning the international carriage of dangerous goods by rail
   ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
   (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
   IMDG: International Maritime Code for Dangerous Goods
Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.