SAFETY DATA SHEET

DOW BENELUX B.V.

Safety Data Sheet according to Reg. (EU) 2020/878

Product name: DOWTHERM™ RP Heat Transfer Fluid

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DOW BENELUX B.V. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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

1.1 Product identifier
Product name: DOWTHERM™ RP Heat Transfer Fluid

Chemical name of the substance: 1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
CASRN: 6196-98-1
EC-No.: 400-370-7
REACH Registration Number: 01-0000015033-84-0001

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Intended as a heat transfer fluid for closed-loop systems. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.
1.3 Details of the supplier of the safety data sheet
COMPANY IDENTIFICATION
DOW BENELUX B.V.
HERBERT H.DOWWEG 5
HOEK
4542 NM TERNEUZEN
NETHERLANDS

Customer Information Number: (31) 115 67 2626
SDSQuestion@dow.com

1.4 EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: 31-(0)115 694982
Local Emergency Contact: 00 31 115 69 4982
The phone number of the national poisoning information center (NVIC). Only for the purpose of informing medical personnel in case of acute intoxications: 088 755 8000

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

Short-term (acute) aquatic hazard - Category 1 - H400
Long-term (chronic) aquatic hazard - Category 1 - H410
Persistent, bioaccumulative and toxic - EUH440
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

Hazard pictograms

Signal word: DANGER

Hazard statements

H410	Very toxic to aquatic life with long lasting effects.
EUH440	Accumulates in the environment and living organisms including in humans

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents and container in accordance with local regulations.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

This product contains 1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene that has been identified as a PBT substance.

Endocrine disrupting properties

Human Health:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100, Commission Regulation (EU) 2018/605 or Regulation (EC) 1272/2008 at levels of0.1% or higher.
Environment:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100, Commission Regulation (EU) 2018/605 or Regulation (EC) 1272/2008 at levels of0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

This product is a substance.

Substance name: 1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
CASRN: 6196-98-1
EC-No.: 400-370-7

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN 63674-30-6 **EC-No.** 400-370-7 **Index-No.** –	01-0000015033-84	>= 99,0 - <= 100,0 %	1,2,3,4-tetrahydro(1-phenylethyl)naphthalene	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10 Acute toxicity estimate Acute oral toxicity: > 2 000 mg/kg Acute dermal toxicity: > 2 000 mg/kg
CASRN 6196-98-1 **EC-No.** 400-370-7 **Index-No.** –	01-0000015033-84	>= 90,0 - < 95,0 %	1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 PBTEUH440 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10 Acute toxicity estimate Acute oral toxicity: > 2 000 mg/kg Acute dermal toxicity: > 2 000 mg/kg
CASRN 60466-61-7 **EC-No.** Not available **Index-No.** –	–	>= 2,5 - < 10,0 %	1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10 Acute toxicity estimate Acute oral toxicity: > 2 000 mg/kg Acute dermal toxicity: > 2 000 mg/kg

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures
General advice:
First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin contact: Wash off with plenty of water.

Eye contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed:
Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 Indication of any immediate medical attention and special treatment needed
Notes to physician: Maintain adequate ventilation and oxygenation of the patient. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical. Water spray.

Unsuitable extinguishing media: None known..

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: No data available

Unusual Fire and Explosion Hazards: Exposure to combustion products may be a hazard to health..

5.3 Advice for firefighters

Fire Fighting Procedures: Use water spray to cool unopened containers.. Evacuate area.. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage..
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.. Use personal protective equipment..

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Follow safe handling advice and personal protective equipment recommendations.

6.2 Environmental precautions: Do not release the product to the aquatic environment above defined regulatory levels Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up: Soak up with inert absorbent material. Clean up remaining materials from spill with suitable absorbant. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.

6.4 Reference to other sections:
See sections: 7, 8, 11, 12 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings evenafter container is emptied.
Use only with adequate ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

7.2 Conditions for safe storage, including any incompatibilities: Keep in properly labelled containers. Store in accordance with the particular national regulations.

Do not store with the following product types: Strong oxidizing agents.
Unsuitable materials for containers**:** None known.

7.3 Specific end use(s): See the technical data sheet on this product for further information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

8.2 Exposure controls
Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

Skin protection

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Styrene/butadiene rubber. Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, boots, apron, or full-body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator.

Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

Environmental exposure controls
See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	
Physical state	Liquid.
Color	Colorless to yellow
Odor	Mild
Odor Threshold	No test data available
pH	Not applicable
Melting point/freezing point	
Melting point/ range	-34 °C *Literature*
Freezing point	-34 °C *Literature*
Boiling point or initial boiling point and boiling range	
Boiling point (760 mmHg)	353 °C *Literature*
Flash point	**closed cup** 194 °C *Pensky-Martens Closed Cup ASTM D 93*
Flammability (solid, gas)	Not applicable to liquids
Flammability (liquids)	Not expected to be a static-accumulating flammable liquid.
Lower explosion limit	0,39 % vol *Literature* Approximately
Upper explosion limit	4,59 % vol *Literature*
Vapor Pressure	<= 1,0 mmHg at 20 °C *Literature*
Relative Vapor Density (air = 1)	Not available
Relative Density (water = 1)	1,03 at 16 °C *Literature*
Solubility(ies)	
Water solubility	< 0,1 g/L at 25 °C *Literature*
Partition coefficient: n-octanol/water	log Pow: 6,11 *Estimated.*
Auto-ignition temperature	385 °C *ASTM E659*
Decomposition temperature	No test data available
Kinematic Viscosity	30,8 cSt at 25 °C *Literature*
Particle characteristics	
Particle size	Not applicable, liquid

9.2 Other information

Molecular weight	236,4 g/mol *Literature*
Explosive properties	No data available
Oxidizing properties	No data available
Evaporation Rate (Butyl Acetate = 1)	< 0,1 *Estimated.*

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: Not classified as a reactivity hazard.

10.2 Chemical stability: Stable under normal conditions.

10.3 Possibility of hazardous reactions: Can react with strong oxidizing agents.

10.4 Conditions to avoid: None known.

10.5 Incompatible materials: Avoid contact with oxidizing materials.

10.6 Hazardous decomposition products
No hazardous decomposition products are known.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data are available.

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure
Ingestion, Inhalation, Skin contact, Eye contact.

Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)

Acute Toxicity Endpoints:

Acute oral toxicity

Information for the Product:

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Based on product testing:
LD50, Rat, > 2 000 mg/kg No deaths occurred at this concentration.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
LD50, Rat, > 2 000 mg/kg No deaths occurred at this concentration.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene

LD50, Rat, > 2 000 mg/kg No deaths occurred at this concentration.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50, Rat, > 2 000 mg/kg No deaths occurred at this concentration.

Acute dermal toxicity

Information for the Product:

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Based on product testing:
LD50, Rabbit, > 2 000 mg/kg No deaths occurred at this concentration.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
LD50, Rabbit, > 2 000 mg/kg No deaths occurred at this concentration.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
LD50, Rabbit, > 2 000 mg/kg No deaths occurred at this concentration.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
LD50, Rabbit, > 2 000 mg/kg No deaths occurred at this concentration.

Acute inhalation toxicity

Information for the Product:

At room temperature, exposure to vapor is minimal due to low volatility. If material is heated or aerosol/mist is produced, concentrations may be attained that are sufficient to cause respiratory irritation and other effects. May cause central nervous system effects. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.

The LC50 has not been determined.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
At room temperature, exposure to vapor is minimal due to low volatility. If material is heated or aerosol/mist is produced, concentrations may be attained that are sufficient to cause respiratory irritation and other effects. May cause central nervous system effects. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.

The LC50 has not been determined.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene

The LC50 has not been determined.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
The LC50 has not been determined.

Skin corrosion/irritation

Information for the Product:

Based on product testing:
Brief contact is essentially nonirritating to skin.
Prolonged contact may cause skin irritation with local redness.
Repeated exposure may cause irritation, even a burn.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
Brief contact is essentially nonirritating to skin.
Prolonged contact may cause skin irritation with local redness.
Repeated exposure may cause irritation, even a burn.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
Brief contact is essentially nonirritating to skin.
Prolonged contact may cause skin irritation with local redness.
Repeated exposure may cause irritation, even a burn.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
Brief contact is essentially nonirritating to skin.
Prolonged contact may cause skin irritation with local redness.
Repeated exposure may cause irritation, even a burn.

Serious eye damage/eye irritation

Information for the Product:

Based on product testing:
May cause moderate eye irritation.
Corneal injury is unlikely.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
May cause moderate eye irritation.
Corneal injury is unlikely.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
May cause moderate eye irritation.
Corneal injury is unlikely.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
May cause moderate eye irritation.

Corneal injury is unlikely.

Sensitization

Information for the Product:

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Information for the Product:

Product test data not available.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Aspiration Hazard

Information for the Product:

Based on physical properties, not likely to be an aspiration hazard.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
Based on physical properties, not likely to be an aspiration hazard.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
Based on physical properties, not likely to be an aspiration hazard.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
Based on physical properties, not likely to be an aspiration hazard.

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Information for the Product:

Repeated skin application to laboratory animals did not produce systemic toxicity.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
Repeated skin application to laboratory animals did not produce systemic toxicity.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
Repeated skin application to laboratory animals did not produce systemic toxicity.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
Repeated skin application to laboratory animals did not produce systemic toxicity.

Carcinogenicity

Information for the Product:

No relevant data found.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
No relevant data found.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
No relevant data found.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene

No relevant data found.

Teratogenicity

Information for the Product:

Product test data not available.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

Reproductive toxicity

Information for the Product:

In animal studies, did not interfere with reproduction.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
In animal studies, did not interfere with reproduction.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
In animal studies, did not interfere with reproduction.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
In animal studies, did not interfere with reproduction.

Mutagenicity

Information for the Product:

In vitro genetic toxicity studies were negative.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
In vitro genetic toxicity studies were negative.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene

In vitro genetic toxicity studies were negative.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
In vitro genetic toxicity studies were negative.

11.2 Information on other hazards
Endocrine disrupting properties

Not classified based on available information.

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100, Commission Regulation (EU) 2018/605 or Regulation (EC) 1272/2008 at levels of0.1% or higher.

Information for components:

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene
The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605, Commission Delegated Regulation (EU) 2017/2100 or Regulation (EC) 1272/2008.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene
Substance does not have endocrine disrupting properties.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605, Commission Delegated Regulation (EU) 2017/2100 or Regulation (EC) 1272/2008.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data are available.

12.1 Toxicity

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), Static, 48 Hour, 0,107 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants
Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species).

EbC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Biomass, > 0,07 mg/l

Toxicity to bacteria
EC50, activated sludge, 3 Hour, 0,062 mg/l, OECD 209 Test

12.2 Persistence and degradability
Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. Material has inherent, primary

biodegradability according to OECD test (s) guidelines (reaches > 20% biodegradation in OECD test(s).
10-day Window: Fail
Biodegradation: 6 %
Exposure time: 28 d
Method: OECD Test Guideline 301B or Equivalent
10-day Window: Not applicable
Biodegradation: > 40 %
Exposure time: 28 d
Method: OECD Test Guideline 302B or Equivalent

12.3 Bioaccumulative potential

Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).
Partition coefficient: n-octanol/water(log Pow): 6,11 Estimated.

12.4 Mobility in soil

Partition coefficient (Koc): > 5000 Estimated.

12.5 Results of PBT and vPvB assessment

Substance is persistent, bioaccumulative, and toxic (PBT).

12.6 Endocrine disrupting properties The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100, Commission Regulation (EU) 2018/605 or Regulation (EC) 1272/2008 at levels of0.1% or higher.

1,2,3,4-tetrahydro(1-phenylethyl)naphthalene

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605, Commission Delegated Regulation (EU) 2017/2100 or Regulation (EC) 1272/2008.

1,2,3,4-Tetrahydro-6-(1-phenylethyl)naphthalene

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605, Commission Delegated Regulation (EU) 2017/2100 or Regulation (EC) 1272/2008.

1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605, Commission Delegated Regulation (EU) 2017/2100 or Regulation (EC) 1272/2008.

12.7 Other adverse effects

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with the EU framework Directives 2008/98/EC and their subsequent adaptations, as

implemented in National Laws and Regulations, as well as EU Directives dealing with priority waste streams. Transboundary shipment of wastes must be in compliance with Regulation (EC) No 1013/2006 and subsequent modifications. For all countries the disposal methods must be in compliance with national and provincial laws and any municipal or local by-laws. For uncontaminated material the preferred disposal options include mechanical and chemical recycling, reselling waste material, incineration with energy recovery or using it as alternative fuel (e.g in cement kilns). Prevent waste material going to landfills. For contaminated material the options remain the same, although additional evaluation is required.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

SECTION 14: TRANSPORT INFORMATION

Classification for ROAD and Rail transport (ADR/RID):

14.1	**UN number or ID number**	UN 3082
14.2	**UN proper shipping name**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene)
14.3	**Transport hazard class(es)**	9
14.4	**Packing group**	III
14.5	**Environmental hazards**	1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
14.6	**Special precautions for user**	Hazard Identification Number: 90

Classification for INLAND waterways (ADNR/ADN):
Consult your Dow contact before transporting by inland waterway

Classification for SEA transport (IMO-IMDG):

14.1	**UN number or ID number**	UN 3082
14.2	**UN proper shipping name**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene)
14.3	**Transport hazard class(es)**	9
14.4	**Packing group**	III
14.5	**Environmental hazards**	1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene
14.6	**Special precautions for user**	EmS: F-A, S-F
14.7	**Maritime transport in bulk according to IMO instruments**	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

14.1	**UN number or ID number**	UN 3082
14.2	**UN proper shipping name**	Environmentally hazardous substance, liquid, n.o.s.(1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene)
14.3	**Transport hazard class(es)**	9
14.4	**Packing group**	III

14.5 Environmental hazards Not applicable

14.6 Special precautions for user No data available.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

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

REACh Regulation (EC) No 1907/2006
This product contains only components that have been either registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer´s/user´s responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	Conditions of restriction for the following entries should be considered: Number on list 3, 75

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Listed in Regulation: ENVIRONMENTAL HAZARDS
Number in Regulation: E1
100 t
200 t

ABM (Algemene Beoordelingsmethodiek): Please contact our product stewardship specialist via the Customer Information contact details in Section 1 for information on the assessment of substances and preparations within the context of the implementation of the water discharge policy.

15.2 Chemical safety assessment
No Chemical Safety Assessment has been carried out for this substance/mixture.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

EUH440	Accumulates in the environment and living organisms including in humans
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Revision

Identification Number: 77721 / A281 / Issue Date: 15.05.2025 / Version: 14.0

In case this version of the SDS contains significant changes from the previous version, they are listed below or noted by bold, double bars in the left-hand margin throughout this document.
Changes encompass identification, hazards, tox/eco-tox information and the addition/removal of the ingredients, and regulatory information, hazard information, uses, risk management measures and other key regulatory changes of the product. Detailed explanation of the changes can be obtained upon request.

Legend

Aquatic Acute	Short-term (acute) aquatic hazard
Aquatic Chronic	Long-term (chronic) aquatic hazard
PBT	Persistent, bioaccumulative and toxic

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -

Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Information Source and References
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW BENELUX B.V. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The informationherein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express orimplied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.
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