SAFETY DATA SHEET
NESTE HYDRO TURBINE 46

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

1.1. Product identifier

Product name NESTE HYDRO TURBINE 46

Product number ID 18054

Internal identification 3080

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

Identified uses Lubricant.

1.3. Details of the supplier of the safety data sheet

Supplier

Neste Markkinointi Oy
Keilaranta 21, Espoo, PL 95, FIN-00095 NESTE, FINLAND
Tel. +358 10 45811
lubetec@neste.com

1.4. Emergency telephone number

National emergency telephone number +358-9-471 977, +358-9-4711, Poison Information Centre

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Aquatic Chronic 3 - H412

2.2. Label elements

Hazard statements H412 Harmful to aquatic life with long lasting effects.

Precautionary statements P273 Avoid release to the environment.
P501 Dispose of contents/ container in accordance with national regulations.
P102 Keep out of reach of children.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

NESTE HYDRO TURBINE 46

Distillates (petroleum), hydrotreated light naphthenic		**2,5 - < 5 %**
CAS number: 64742-53-6	EC number: 265-156-6	REACH registration number: 01-2119480375-34-XXXX
Classification Asp. Tox. 1 - H304		

2,6-di-tert-butyl-p-cresol (BHT)		**0,25 - < 0,5 %**
CAS number: 128-37-0	EC number: 204-881-4	REACH registration number: 01-2119565113-46-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms are severe or persist.

Ingestion Rinse mouth. Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms are severe or persist.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.

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

General information No specific health hazards known.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards None known.

Hazardous combustion products Carbon dioxide (CO2). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Contain and collect extinguishing water. Avoid discharge into drains.

NESTE HYDRO TURBINE 46

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear suitable protective clothing as protection against splashing or contamination.

For emergency responders Keep unnecessary and unprotected personnel away from the spillage.

6.2. Environmental precautions

Environmental precautions Stop leak if safe to do so. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with sand or other inert absorbent. Place waste in labelled, sealed containers. Dispose of waste via a licensed waste disposal contractor.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid inhalation of vapours and spray/mists. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. All handling should only take place in well-ventilated areas. Take precautionary measures against static discharges. For personal protection, see Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep containers upright. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Specific end use(s) Not known.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

2,6-di-tert-butyl-p-cresol (BHT)

2,6-di-tert-butyl-p-cresol (BHT): 10 mg/m3 (8h), 20 mg/m3 (15min), HTP 2016/FIN

2,6-di-tert-butyl-p-cresol (BHT) (CAS: 128-37-0)

DNEL
Workers - Dermal; Long term systemic effects: 0,5 mg/kg/day
Workers - Inhalation; Long term systemic effects: 3,5 mg/m³

PNEC
- Fresh water; 0,199 µg/l
- Marine water; 0,0199 µg/l
- Fresh water, Intermittent release; 1,99 µg/l
- Sediment (Freshwater); 99,6 mg/kg
- Sediment (Marinewater); 9,96 mg/kg
- Soil; 47,69 µg/kg

NESTE HYDRO TURBINE 46

8.2. Exposure controls

Appropriate engineering controls	All handling should only take place in well-ventilated areas. Provide eyewash station and safety shower.
Eye/face protection	No specific eye protection required during normal use.
Hand protection	Wear protective gloves. It is recommended that gloves are made of the following material: Nitrile rubber. Butyl rubber.
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination.
Respiratory protection	No specific recommendations.
Environmental exposure controls	Store in a demarcated bunded area to prevent release to drains and/or watercourses.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	-
Odour	-
Odour threshold	-
pH	-
Melting point	< -30°C Pour point
Initial boiling point and range	-
Flash point	240°C COC (Cleveland open cup).
Flammability (solid, gas)	-
Upper/lower flammability or explosive limits	-
Vapour pressure	-
Vapour density	-
Relative density	~ 0,848 @ 15°C
Solubility(ies)	-
Partition coefficient	-
Auto-ignition temperature	-
Decomposition Temperature	-
Viscosity	Kinematic viscosity 46 mm2/s @ 40°C
Explosive properties	-
Oxidising properties	-

9.2. Other information

Other information	Not known.

SECTION 10: Stability and reactivity

NESTE HYDRO TURBINE 46

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials to avoid Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon dioxide (CO2). Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

NESTE HYDRO TURBINE 46

Distillates (petroleum), hydrotreated light naphthenic

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} > 5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD_{50}) LD_{50} > 2000 mg/kg, Dermal, Rabbit

2,6-di-tert-butyl-p-cresol (BHT)

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} > 6000 mg/kg, Oral, Rat (OECD TG 401)

Acute toxicity - dermal

Notes (dermal LD_{50}) LD_{50} > 2000 mg/kg, Dermal, Rat (OECD 402)

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity Harmful to aquatic life with long lasting effects. The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2,6-di-tert-butyl-p-cresol (BHT)

Acute aquatic toxicity

$LE(C)_{50}$ 0.1 < L(E)C50 ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC_{50}, 96 hours: 0,199 mg/l, Algae
Estimated value.
(QSAR)

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 0,48 mg/l, Daphnia magna
(OECD TG 202)

Chronic aquatic toxicity

M factor (Chronic) 1

Chronic toxicity - fish early life stage NOEC, 42 days: 0,053 mg/l, Oryzias latipes (Red killifish)

12.2. Persistence and degradability

Persistence and degradability No data available.

Biodegradation No data available.

2,6-di-tert-butyl-p-cresol (BHT)

Biodegradation 4,5 %, 28 d (OECD TG 301C)

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient -

NESTE HYDRO TURBINE 46

2,6-di-tert-butyl-p-cresol (BHT)

Partition coefficient	log Pow: 4,17 (21 °C)

12.4. Mobility in soil

Mobility No data available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment No data available.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Do not reuse empty containers.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

-

UN No. (ADR/RID) -

14.2. UN proper shipping name

Proper shipping name (ADR/RID) -

14.3. Transport hazard class(es)

ADR/RID class -

14.4. Packing group

ADR/RID packing group -

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

NESTE HYDRO TURBINE 46

EU legislation	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) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. 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 (as amended).

15.2. Chemical safety assessment

No data available.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	DNEL = Derived No-Effect Level PNEC = Predicted No-Effect Concentration
Key literature references and sources for data	The manufacturer's SDS. 6.7.2017
Revision comments	Revised formulation. Revised classification. Updated, sections: 2, 3, 8, 9, 11, 12
Revision date	10/07/2017
Supersedes date	06/05/2016
SDS number	4984
Hazard statements in full	H304 May be fatal if swallowed and enters airways. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.