

SAFETY DATA SHEET

Neste MY Renewable Diesel (R99); Neste Renewable Diesel (R99)

1. Identification

Product identifier

Product name Neste MY Renewable Diesel (R99); Neste Renewable Diesel (R99)

Product number ID 19555

Recommended use of the chemical and restrictions on use

Application Use as a fuel,

Details of the supplier of the safety data sheet

Supplier Neste US, Inc.
3040 Post Oak Blvd, Suite 1700, Houston, Texas 77056
+1 (713) 407 4400
sds@neste.com (chemical safety)

Emergency telephone number

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

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Flam. Liq. 4 - H227

Health hazards Carc. 2 - H351 STOT RE 2 - H373 Asp. Tox. 1 - H304

Environmental hazards Not Classified

Label elements

Hazard symbols



Signal word Danger

Hazard statements H227 Combustible liquid.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H304 May be fatal if swallowed and enters airways.

Precautionary statements P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P301+P310 If swallowed: Immediately call a poison center/ doctor.
P331 Do NOT induce vomiting.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P273 Avoid release to the environment.

Contains Alkanes, C10-20 -branched and linear, Fuels, diesel, Distillates (Fischer-Tropsch), C8-26 - branched and linear

Other hazards

Other hazards Risk of soil and ground water contamination. Repeated exposure may cause skin dryness or cracking.

3. Composition/information on ingredients

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Mixtures

Alkanes, C10-20 -branched and linear	> 97%
CAS number: 928771-01-1	
Classification	
Flam. Liq. 4 - H227	
Asp. Tox. 1 - H304	
Distillates (Fischer-Tropsch), C8-26 - branched and linear	< 2%
CAS number: 848301-67-7	
Classification	
Asp. Tox. 1 - H304	
Fuels, diesel	< 3%
CAS number: 68334-30-5	
Classification	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Carc. 2 - H351	
STOT RE 2 - H373	
Asp. Tox. 1 - H304	
Aquatic Chronic 2 - H411	

The full text for all hazard statements is displayed in Section 16.

Other information Mixture of renewable raw material fuel and additives., Contains middle distillate-range iso- and n-paraffinic hydrocarbons., Total aromatics at maximum 1,0 Weight %.

4. First-aid measures

Description of first aid measures

Inhalation	Unlikely to be hazardous by inhalation because of the low vapor pressure of the product at ambient temperature. If spray/mist has been inhaled, proceed as follows. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.
Ingestion	Do not induce vomiting. Get medical attention immediately.
Skin Contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
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.

Most important symptoms and effects, both acute and delayed

General information Repeated exposure may cause skin dryness or cracking. Spray/mists may cause respiratory tract irritation. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.

Special hazards arising from the substance or mixture

Specific hazards Combustible liquid. Containers can burst violently or explode when heated, due to excessive pressure build-up.

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

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear adequate protective equipment at all operations.
For emergency responders	Prevent unauthorized access. Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharge.

Environmental precautions

Environmental precautions	Avoid release to the environment. Stop leak if safe to do so. Avoid the spillage or runoff entering drains, sewers or watercourses. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). Risk of soil and ground water contamination.
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Methods and material for containment and cleaning up

Methods for cleaning up	Immediately start clean-up of the liquid and contaminated soil. Contain spillage with sand, earth or other suitable non-combustible material. Pay attention to the fire and health hazards caused by the product.
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Reference to other sections	For personal protection, see Section 8.
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7. Handling and storage

Precautions for safe handling

Usage precautions	Avoid heat, flames and other sources of ignition. Take precautionary measures against static discharges. All handling should only take place in well-ventilated areas. Avoid inhalation of vapors and contact with skin and eyes. Use personal protective equipment and/or local ventilation when needed. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).
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Conditions for safe storage, including any incompatibilities

Storage precautions	Flammable liquid storage. Store in accordance with local regulations. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Take precautions against leakage by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations. Only store in correctly labeled containers. Use containers made of the following materials: Carbon steel. Stainless steel.
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Specific end uses(s)

Specific end use(s)	Not known.
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8. Exposure controls/Personal protection

Ingredient comments	The individual limit values can be applied for the hydrocarbons. Diesel fuel as total hydrocarbons; ACGIH TLV®-TWA (8h) 100 mg/m ³ (IFV).
Exposure controls	
Appropriate engineering controls	All handling should only take place in well-ventilated areas. Use personal protective equipment and/or local ventilation when needed. Handle in accordance with good industrial hygiene and safety practice. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).
Eye/face protection	Tight-fitting safety glasses.
Hand protection	Wear protective gloves. It is recommended that gloves are made of the following material: Nitrile rubber. Neoprene. Polyvinyl chloride (PVC). The selected gloves should have a breakthrough time of at least 4 hours. Protection class 5. Change protective gloves regularly.
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination. Wear anti-static protective clothing if there is a risk of ignition from static electricity.
Respiratory protection	Filter device/half mask Combination filter, type A2/P2. Filter device could be used maximum 2 hours at a time. Filter devices must not be used in conditions where the oxygen level is low (< 19 vol.-%). At high concentrations a breathing apparatus must be used (self-contained or fresh air hose breathing apparatus). Filter must be changed often enough.
Environmental exposure controls	Take precautions against leakage by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Clear.
Odor	Mild.
Odor threshold	-
pH	-
Melting point	Pour point < -20°C @ 1013 hPa (BS4633, EC A1)
Initial boiling point and range	180-320°C (EN ISO 3405)
Flash point	> 61°C (EN ISO 2719, EC A9)
Upper/lower flammability or explosive limits	-
Vapor pressure	0,087 kPa @ 25°C (EC A4)
Vapor density	-
Relative density	0,77 - 0,79 @ 15/4°C (EN ISO 12185, EC A3)
Solubility(ies)	Insoluble in water. ~ 0,075 mg/l water @ 25°C (calculated) Soluble in the following materials: Methanol. Hydrocarbons.
Partition coefficient	log Kow: > 6,5 (EC A8)
Auto-ignition temperature	204°C (EC A15)
Decomposition Temperature	-

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Viscosity	Kinematic viscosity 4.0 mm ² /s @ 20°C 2.6 mm ² /s @ 40°C (OECD 114) Dynamic viscosity ≤ 5 mPa s @ 20°C
Explosive properties	Not considered to be explosive. (EC A14)
Oxidizing properties	Does not meet the criteria for classification as oxidizing.
Other information	Not known.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	Keep away from heat, sparks and open flame.
Materials to avoid	Oxidizing agents.
Hazardous decomposition products	Does not decompose when used and stored as recommended.

11. Toxicological information

Information on toxicological effects

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

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 1,100.0

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met. (EC B4) Repeated exposure may cause skin dryness or cracking. The product irritates mucous membranes and may cause abdominal discomfort if swallowed. May cause respiratory system irritation.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met. (EC B5)

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met. (EC B6)

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met. (EC B10, B13/14 & B17).

Carcinogenicity

Carcinogenicity Suspected of causing cancer.

IARC carcinogenicity Not listed.

NTP carcinogenicity Not listed.

OSHA Carcinogenicity Not listed.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met. (OECD 416)

Specific target organ toxicity - single exposure

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STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met. (OECD 408)

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Route of exposure Inhalation Ingestion Skin and/or eye contact

Toxicological information on ingredients.

Alkanes, C10-20 -branched and linear

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >2000 mg/kg, Oral, Rat (EC B1 tris)

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rat (EC B3)

Fuels, diesel

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 5000 mg/kg, Oral, Rat (OECD 401, 420)

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 4300 mg/kg, Dermal, Rabbit (OECD 434)

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ 3,6 - 5,4 mg/l, Inhalation, (4h), Rat (OECD 403)

ATE inhalation (vapours mg/l) 11.0

12. Ecological information

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

Ecological information on ingredients.

Alkanes, C10-20 -branched and linear

Acute aquatic toxicity

Acute toxicity - fish LL₅₀, 96 hours: > 1000 mg/l, Fish WAF (OECD 203)

Acute toxicity - aquatic invertebrates EL50, 48 hours: > 100 mg/l, WAF (OECD 202)

Acute toxicity - aquatic plants EL50, 72 hours: > 100 mg/l, Algae WAF (OECD 201)

Acute toxicity - microorganisms EC₅₀, 30 minutes: > 1000 mg/l, Micro-organisms (wastewater sludge)
EC₅₀, 3 hours: > 1000 mg/l, Micro-organisms (wastewater sludge) (OECD 209)

Chronic aquatic toxicity

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Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 1 mg/l, LOEC, 21 days: 3,2 mg/l, WAF (OECD 211) NOEC, 10 days: 373 mg/kg, Sediment organisms LOEC, 10 days: 1165 mg/kg, Sediment organisms LC ₅₀ , 10 days: 1200 mg/kg, Sediment organisms (OSPAR Protocols, Part A: Sediment Bioassay, 2005)
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Fuels, diesel

Acute aquatic toxicity

Acute toxicity - fish	LL ₅₀ , 96 hours: 21 mg/l, Oncorhynchus mykiss (Rainbow trout) NOEL, 96 hours: 10 mg/l, Oncorhynchus mykiss (Rainbow trout) WAF (OECD 203, EC C.1)
Acute toxicity - aquatic invertebrates	EL50, 48 hours: 68 mg/l, Daphnia magna NOEL, 48 hours: 46 mg/l, Daphnia magna WAF (OECD 202, EC C.2)
Acute toxicity - aquatic plants	EbL50, 72 hours: 10 mg/l, Pseudokirchneriella subcapitata NOEL, 72 hours: 1 mg/l, Pseudokirchneriella subcapitata WAF (OECD 201, EC C.3)
Acute toxicity - microorganisms	EL50, 40 hours: > 1000 mg/l, Micro-organisms (wastewater sludge) NOEL, 40 hours: 3,22 mg/l, Micro-organisms (wastewater sludge) (QSAR)
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - fish early life stage	NOEL, 14 days: 0,08 mg/l, Oncorhynchus mykiss (Rainbow trout) (QSAR)
Chronic toxicity - aquatic invertebrates	NOEL, 21 days: 0,2 mg/l, Daphnia magna (QSAR)

Persistence and degradability

Stability (hydrolysis)	No significant reaction in water.
Biodegradation	Rapidly degradable (OECD 301B).

Ecological information on ingredients.

Fuels, diesel

Biodegradation	Inherently biodegradable. (OECD 301F)
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Bioaccumulative potential

Bio-Accumulative Potential Possibly bioaccumulative.

Partition coefficient log Kow: > 6,5 (EC A8)

Mobility in soil

Mobility Evaporates slowly. The product has poor water-solubility. The product contains substances which are bound to particulate matter and are retained in soil. Log Koc > 5.6 (EC C19).

Other adverse effects

Other adverse effects Not known.

13. Disposal considerations

Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Product residues retained in emptied containers can be hazardous. Waste packaging should be collected for reuse or recycling.

14. Transport information

Sea transport notes This cargo is considered an Energy-rich fuel and effective 1 January 2019 should be carried subject to Annex I of MARPOL, see Annex 12 of MEPC.2/Circ.24. Please also refer to MEPC.1/Circ.879 - GUIDELINES FOR THE CARRIAGE OF ENERGY-RICH FUELS AND THEIR BLENDS

UN Number

UN No. (TDG) 1202

UN No. (IMDG) Not classified under IMDG.

UN No. (DOT) 1202

UN proper shipping name

Proper shipping name (TDG) UN 1202 DIESEL FUEL

Proper shipping name (DOT) UN 1202 DIESEL FUEL

Transport hazard class(es)

TDG class 3

Packing group

TDG Packing Group III

DOT packing group III

Environmental hazards

Environmentally Hazardous Substance

No.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Bulk (MARPOL 73/78, Annex I): Energy-rich fuels

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15. Regulatory information

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Not listed.

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16. Other information

Abbreviations and acronyms used in the safety data sheet	ACGIH = American Conference of Governmental Industrial Hygienists IARC = International Agency for Research on Cancer NTP = National Toxicology Program OSHA = Occupational Safety and Health Administration TLV = Treshold Limit Value TWA = Time-Weighted Average WAF = Water Accommodated Fraction
Key literature references and sources for data	Regulations, databases, literature, own research. Chemical Safety Report Renewable hydrocarbons (diesel type fraction), 2017.
Revision comments	Updated, sections: 14 NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	1/1/2019
Supersedes date	5/11/2018
SDS No.	5561
Hazard statements in full	H226 Flammable liquid and vapor. H227 Combustible liquid. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H332 Harmful if inhaled. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects.
NFPA - health hazard	0
NFPA - flammability hazard	2
NFPA - instability hazard	0
NFPA - special hazard	-
ACA HMIS Health rating.	2
ACA HMIS Flammability rating.	2
ACA HMIS Physical hazard rating.	0

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