

## TIDAL POWER HDX 10W-40

### Semi-Synthetic Heavy Duty Diesel Engine oil

**TIDAL POWER HDX 10W-40** is an extra high performance universal engine oil de-signed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year for use in Euro-3, Euro-4 and Euro-5 engines equipped with EGR and/or SCR. This product is not suitable for vehicles equipped with a Diesel Particulate Filter (DPF).

**TIDAL POWER HDX 10W-40** is formulated with high refined solvent mineral and synthetic base stock in combination with a special additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersancy and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against Bore Polishing.
- Extended drain intervals.

**TIDAL POWER HDX 10W-40** meets the following performance criteria:

<b>Approved:</b>	MB-approval 228.3	Volvo VDS-3	Renault RLD-2	Mack EO-N
<b>Meets:</b>	API CI-4	API SL	ACEA E7	ACEA A3/B4
	CAT ECF-1a, ECF-2	JASO DH-1	DCC 93K215	MTU Type 2
	Deutz DQC-III-10	Mack EO-M	Global DHD-1	MAN M 3275
	Cummins CES 20077, 20078			

### Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J300	10W-40
Density @15 °C	kg/m <sup>3</sup>	ASTM 4052	860
Kinematic Viscosity @ 40 °C	mm <sup>2</sup> /s	ASTM D7042	91.6
Kinematic Viscosity @ 100 °C	mm <sup>2</sup> /s	ASTM D7042	14.3
Viscosity Index		ASTM D2270	162
Viscosity CCS @ -25 °C, amx.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	>200
Pour Point	°C	ASTM D7346	-36
Total Base Number	mgKOH/g	ASTM D2896	11.8
Sulphated Ash	%Wt	ASTM D874	1.5
Date Issued: 15-01-2021	Supersedes: 26-03-2019	Revision Nr.: 04	



**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Mixture  
Product name : 72550 - TIDAL POWER HDX 10W-40  
Product code : 72550  
Type of product : Lubricant

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Main use category : Consumer use, Industrial use, Professional use  
Function or use category : Lubricants and additives

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

North Sea Lubricants B.V. B.V.  
Ampèrestraat 5  
NL- 3846AN Harderwijk  
The Netherlands  
T +31 651345369  
[support@northsealubricants.com](mailto:support@northsealubricants.com) - [www.northsealubricants.com](http://www.northsealubricants.com)

**1.4. Emergency telephone number**

Emergency number : +31 (0)786527652  
Monday to Friday: 09:00 - 16:00 (CET)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

**Adverse physicochemical, human health and environmental effects**

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

**2.2. Label elements****Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

EUH-statements : EUH210 - Safety data sheet available on request.

**2.3. Other hazards**

Other hazards which do not result in classification : Flammable liquids. Prolonged or repeated skin contact with the material will remove natural oils which leads to a dermatitis. Spills of this product present a serious slipping hazard.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil substance with national workplace exposure limit(s) (BE, BG, CZ, DK, HR, NL, NO); substance with a Community workplace exposure limit	CAS-No.: 64742-54-7 EC-No.: 265-157-1 EC Index-No.: 649-467-00-8 REACH-no: 01-2119484627-25	≥ 75	Asp. Tox. 1, H304
Distillates (petroleum), hydrotreated light paraffinic; Baseoil substance with national workplace exposure limit(s) (BE, NL)	CAS-No.: 64742-55-8 EC-No.: 265-158-7 EC Index-No.: 649-468-00-3 REACH-no: 01-2119487077-29	2.5 – 5	Not classified
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil substance with national workplace exposure limit(s) (BG, CZ, DK, HR, NL); substance with a Community workplace exposure limit	CAS-No.: 64742-65-0 EC-No.: 265-169-7 EC Index-No.: 649-474-00-6 REACH-no: 01-2119471299-27	1 – 2.5	Asp. Tox. 1, H304
Phenol, dodecyl-, sulfured, carbonates, calcium salts, overbased	EC-No.: 701-251-5 REACH-no: 01-2119524004-56	0.5 – 2.5	Aquatic Chronic 4, H413

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after inhalation	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after skin contact	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after eye contact	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after ingestion	: After adequate first aid, no further treatment is required unless symptoms reappear.

#### 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	: Water spray. Dry powder. Foam. Carbon dioxide.
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### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : Eliminate all ignition sources if safe to do so.  
Emergency procedures : Ventilate spillage area.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.  
Storage temperature : 50 °C  
Storage area : Store in a well-ventilated place. Store away from heat.  
Special rules on packaging : Store in a closed container. Keep only in original container.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

#### Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil (64742-54-7)

#### EU - Indicative Occupational Exposure Limit (IOEL)

IOEL TWA	5 mg/m <sup>3</sup>
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### Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0)

#### EU - Indicative Occupational Exposure Limit (IOEL)

IOEL TWA	5 mg/m <sup>3</sup>
IOEL STEL	10 mg/m <sup>3</sup>

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

No additional information available

#### 8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



##### 8.2.2.1. Eye and face protection

**Eye protection:**

Safety glasses

##### 8.2.2.2. Skin protection

No additional information available

##### 8.2.2.3. Respiratory protection

No additional information available

##### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Brown.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -33 °C
Boiling point	: Not available
Flammability	: Not applicable
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available

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Upper explosive limit (UEL)	: Not available
Flash point	: 230 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: 90.52 mm <sup>2</sup> /s @40°C
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 860.7 kg/m <sup>3</sup> @15°C
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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<b>Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil (64742-54-7)</b>	
LD50 oral (rat)	> 5000 mg/kg bodyweight
LD50 dermal (rabbit)	> 5000 mg/kg
LC50 inhalation (rat) (Vapours - mg/l/4h)	> 5.53 mg/l/4h

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0)</b>	
LD50 oral (rat)	> 5000 mg/kg bodyweight
LD50 dermal (rabbit)	> 5000 mg/kg
LC50 inhalation (rat) (Vapours - mg/l/4h)	> 5.53 mg/l/4h

<b>Distillates (petroleum), hydrotreated light paraffinic; Baseoil (64742-55-8)</b>	
LD50 oral (rat)	> 5000 mg/kg
LD50 dermal (rabbit)	> 5000 mg/kg
LC50 inhalation (rat) (Dust/Mist - mg/l/4h)	> 5.53 mg/l/4h

<b>Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased</b>	
LD50 oral (rat)	> 5000 mg/kg
LD50 dermal (rabbit)	> 4000 µg/kg
LC50 inhalation (rat) (Vapours - mg/l/4h)	> 0.835 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

<b>Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil (64742-54-7)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight
NOAEL (dermal, rat/rabbit, 90 days)	≈ 1000 mg/kg bodyweight

<b>Distillates (petroleum), hydrotreated light paraffinic; Baseoil (64742-55-8)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard	: Not classified
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<b>72550 - TIDAL POWER HDX 10W-40</b>	
Viscosity, kinematic	90.52 mm <sup>2</sup> /s @40°C

### 11.2. Information on other hazards

No additional information available

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

<b>Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil (64742-54-7)</b>	
LC50 - Fish [1]	> 100 mg/l Pimephales promelas
EC50 - Crustacea [1]	> 10000 mg/l Daphnia magna
NOEC chronic fish	1000 mg/l Oncorhynchus mykiss
NOEC chronic crustacea	10 mg/l Daphnia magna
NOEC chronic algae	> 100 mg/l Pseudokirchneriella subcapitata

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0)</b>	
LC50 - Fish [1]	> 100 mg/l Pimephales promelas
EC50 - Crustacea [1]	> 10000 mg/l Daphnia magna
NOEC chronic fish	1000 mg/l Oncorhynchus mykiss
NOEC chronic crustacea	10 mg/l Daphnia magna
NOEC chronic algae	> 100 mg/l Pseudokirchneriella subcapitata

<b>Distillates (petroleum), hydrotreated light paraffinic; Baseoil (64742-55-8)</b>	
LC50 - Fish [1]	> 100 mg/l Pimephales promelas
EC50 - Crustacea [1]	> 10000 mg/l Daphnia magna
NOEC chronic fish	≥ 1000 mg/l Oncorhynchus mykiss
NOEC chronic crustacea	10 mg/l Daphnia magna
NOEC chronic algae	≥ 100 mg/l Pseudokirchneriella subcapitata

<b>Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased</b>	
LC50 - Fish [1]	> 1000 mg/l Pimephales promelas
EC50 - Crustacea [1]	> 1000 mg/l Daphnia magna
EC50 96h - Algae [1]	> 500 mg/l Pseudokirchneriella subcapitata

#### 12.2. Persistence and degradability

<b>Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil (64742-54-7)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 % 28 d OECD 301F

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0)</b>	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 % 28 d OECD 301F

<b>Distillates (petroleum), hydrotreated light paraffinic; Baseoil (64742-55-8)</b>	
Biodegradation	31 % 28 d, OECD TG 301 F



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### Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased

Persistence and degradability	Not readily biodegradable.
Biodegradation	13.4 % OECD 301B 28 days

### 12.3. Bioaccumulative potential

#### Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil (64742-54-7)

Partition coefficient n-octanol/water (Log Kow)	> 4
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#### Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0)

Bioconcentration factor (BCF REACH)	260
Partition coefficient n-octanol/water (Log Pow)	9.2

#### Distillates (petroleum), hydrotreated light paraffinic; Baseoil (64742-55-8)

Partition coefficient n-octanol/water (Log Pow)	> 6
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### Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased

Partition coefficient n-octanol/water (Log Pow)	9.5
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### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Product/Packaging disposal recommendations : Dispose of contents/container to an approved waste disposal plant.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	ADN	RID
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

No data available

#### Transport by sea

No data available

#### Air transport

No data available

#### Inland waterway transport

No data available

#### Rail transport

No data available

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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### SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Flammability (solid, gas)	Added	
2.1	Adverse physicochemical, human health and environmental effects	Added	
4.1	First-aid measures after skin contact	Added	
4.1	First-aid measures after inhalation	Added	
4.1	First-aid measures after ingestion	Added	
4.1	First-aid measures after eye contact	Added	
4.3	Other medical advice or treatment	Added	
5.1	Suitable extinguishing media	Added	
5.2	Hazardous decomposition products in case of fire	Added	
5.3	Protection during firefighting	Added	
6.1	Protective equipment	Added	
6.1	Emergency procedures	Added	
6.2	Environmental precautions	Added	
6.3	Methods for cleaning up	Added	
6.3	Other information	Added	
6.4	Reference to other sections (8, 13)	Added	
7.1	Hygiene measures	Added	
7.1	Precautions for safe handling	Added	
7.2	Storage conditions	Added	
8.2	Appropriate engineering controls	Removed	
8.2	Environmental exposure controls	Added	
8.2	Hand protection	Modified	
8.2	Skin and body protection	Modified	
9.1	Colour	Modified	
10.1	Reactivity	Added	
10.2	Chemical stability	Added	
10.3	Possibility of hazardous reactions	Added	
10.4	Conditions to avoid	Added	
10.6	Hazardous decomposition products	Added	
12.1	Ecology - general	Added	
13.1	Waste treatment methods	Added	
15.2	Chemical safety assessment	Added	

#### Full text of H- and EUH-statements:

Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
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Full text of H- and EUH-statements:	
Asp. Tox. 1	Aspiration hazard, Category 1
EUH210	Safety data sheet available on request.
H304	May be fatal if swallowed and enters airways.
H413	May cause long lasting harmful effects to aquatic life.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.