

TIDAL POWER HD 15W-40

Mineral Heavy Duty Diesel Engine oil

TIDAL POWER HD 15W-40 is a high performance universal mineral oil designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and is formulated for use in Euro-1, Euro-2 and Euro-3 engines equipped with EGR and/or SCR. This product is not suitable for vehicles equipped with a Diesel Particulate Filter (DPF).

TIDAL POWER HD 15W-40 is formulated with high refined solvent base stocks 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.
- Not suitable for engine equipped with a Diesel Particulate Filter (DPF).

TIDAL POWER HD 15W-40 meets the following performance criteria:

API CG-4
Volvo VDS

ACEA E2
Renault RD

MB 228.1
MTU Type 1

MAN M271

Typical Analysis

| Properties | Unit | Method | Typical Value |
|------------------------------|------------------------|------------------|---------------|
| SAE Grade | | SAE J300 | 15W-40 |
| Density @15 °C | kg/m ³ | ASTM 4052 | 873 |
| Kinematic Viscosity @ 40 °C | mm ² /s | ASTM D7042 | 103.9 |
| Kinematic Viscosity @ 100 °C | mm ² /s | ASTM D7042 | 14.1 |
| Viscosity Index | | ASTM D2270 | 139 |
| Viscosity CCS @ -20 °C, max | cP | ASTM D5293 | 7000 |
| Flash Point COC | °C | ASTM D92 | >201 |
| Pour Point | °C | ASTM D7346 | -36 |
| Total Base Number | mgKOH/g | ASTM D2896 | 8.6 |
| Sulphated Ash | %Wt | ASTM D874 | 1.26 |
| Date Issued: 30-08-2018 | Supersedes: 08-03-2018 | Revision Nr.: 02 | |





72600 - TIDAL POWER HD 15W-40

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 9/6/2018 Revision date: 4/28/2019 Supersedes version of: 9/6/2018 Version: 1.0

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

1.1. Product identifier

| | |
|-----------------|---------------------------------|
| Product form | : Mixture |
| Product name | : 72600 - TIDAL POWER HD 15W-40 |
| Product code | : 72600 |
| 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 | : Professional use, Consumer 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 - 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

72600 - TIDAL POWER HD 15W-40

Safety Data Sheet

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), 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 | 50 – 75 | Asp. Tox. 1, H304 |
| 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 | 25 – 50 | 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 |

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.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

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

72600 - TIDAL POWER HD 15W-40

Safety Data Sheet

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

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

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
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 : 45 °C
Storage area : Store away from heat. Store in a well-ventilated place.
Special rules on packaging : Keep only in original container. Store in a closed 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), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0)

EU - Indicative Occupational Exposure Limit (IOEL)

| | |
|-----------|----------------------|
| IOEL TWA | 5 mg/m ³ |
| IOEL STEL | 10 mg/m ³ |

72600 - TIDAL POWER HD 15W-40

Safety Data Sheet

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

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

EU - Indicative Occupational Exposure Limit (IOEL)

| | |
|----------|---------------------|
| IOEL TWA | 5 mg/m ³ |
|----------|---------------------|

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

No additional information available

8.2.2.2. Skin protection

Hand protection

| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
|------|---|-------------------|----------------|-------------|------------|
| | Nitrile rubber (NBR), Neoprene rubber (HNBR) | 5 (> 240 minutes) | 0.7 | 3 (> 0.65) | EN ISO 374 |
| | Polyvinylchloride (PVC) | 2 (> 30 minutes) | 0.4 | 3 (> 0.65) | EN ISO 374 |

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 | : Not available |
| Odour threshold | : Not available |
| Melting point | : Not applicable |
| Freezing point | : -33 °C |
| Boiling point | : Not available |

72600 - TIDAL POWER HD 15W-40

Safety Data Sheet

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

| | |
|---|--------------------------------|
| Flammability | : Not applicable |
| Explosive limits | : Not available |
| Lower explosive limit (LEL) | : Not available |
| Upper explosive limit (UEL) | : Not available |
| Flash point | : > 201 °C |
| Auto-ignition temperature | : Not available |
| Decomposition temperature | : Not available |
| pH | : Not available |
| Viscosity, kinematic | : 106 mm ² /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 | : 884 kg/m ³ @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 |

72600 - TIDAL POWER HD 15W-40

Safety Data Sheet

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

Acute toxicity (inhalation) : Not classified

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0)

| | |
|---|-------------------------|
| 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 |

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

| | |
|---|-------------------------|
| 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 |

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

| | |
|---|----------------|
| 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 |

| | |
|-----------------------------------|------------------|
| 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 |

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0)

| | |
|-------------------------------------|-------------------------|
| LOAEL (oral, rat, 90 days) | 125 mg/kg bodyweight |
| NOAEL (dermal, rat/rabbit, 90 days) | ≈ 1000 mg/kg bodyweight |

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

| | |
|----------------------------|----------------------|
| LOAEL (oral, rat, 90 days) | 125 mg/kg bodyweight |
|----------------------------|----------------------|

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

| | |
|----------------------------|---|
| 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

72600 - TIDAL POWER HD 15W-40

| | |
|----------------------|-----------------|
| Viscosity, kinematic | 106 mm²/s @40°C |
|----------------------|-----------------|

11.2. Information on other hazards

No additional information available

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 |
| Not rapidly degradable | |

72600 - TIDAL POWER HD 15W-40

Safety Data Sheet

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

| Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil (64742-65-0) | |
|---|--|
| 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 |

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

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

12.2. Persistence and degradability

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

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

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

12.3. Bioaccumulative potential

| 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 heavy paraffinic; Baseoil (64742-54-7) | |
|--|-----|
| Partition coefficient n-octanol/water (Log Kow) | > 4 |

| Distillates (petroleum), hydrotreated light paraffinic; Baseoil (64742-55-8) | |
|--|-----|
| Partition coefficient n-octanol/water (Log Pow) | > 6 |

12.4. Mobility in soil

No additional information available

72600 - TIDAL POWER HD 15W-40

Safety Data Sheet

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

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 :

SECTION 14: Transport information

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

| ADR | IMDG | IATA | ADN | RID |
|---|----------------|----------------|----------------|----------------|
| 14.1. UN number or ID number | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.2. UN proper shipping name | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.3. Transport hazard class(es) | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.4. Packing group | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.5. Environmental hazards | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| No supplementary information available | | | | |

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

72600 - TIDAL POWER HD 15W-40

Safety Data Sheet

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

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

SECTION 16: Other information

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. |

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.