SAFETY DATA SHEET
SHELL TURBO OIL T 46

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

1.1. Product identifier

Product name SHELL TURBO OIL T 46

Product number 52153

REACH registration notes This product is not classified as hazardous, the information in this datasheet is given for guidance only.

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

Identified uses Engine oil.

1.3. Details of the supplier of the safety data sheet

Supplier

Univar
536 Grants Crescent
Greenougue Industrial Estate
Rathcoole
Co Dublin
sds@univar.com
+353 1 401 9800
+353 1 401 9142

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 52153

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 Not Classified

Classification (67/548/EEC or 1999/45/EC) -

2.2. Label elements

Hazard statements EUH208 Contains N-1-NAPHTHYLANILINE. May produce an allergic reaction.

Supplemental label information EUH210 Safety data sheet available on request.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SHELL TURBO OIL T 46

SECTION 3: Composition/information on ingredients

3.2. Mixtures

INTERCHANGEABLE LOW VISCOSITY BASE OIL (<20.5 CST @ 40C) **0-90%**

CAS number: —

Classification	Classification (67/548/EEC or 1999/45/EC)
Asp. Tox. 1 - H304	-

N-1-NAPHTHYLANILINE **0.1-0.24%**

CAS number: 90-30-2 EC number: 201-983-0

M factor (Acute) = 1 M factor (Chronic) = 1

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Skin Sens. 1B - H317 STOT RE 2 - H373 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	N;R50/53. R43.

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

Composition comments Mineral oil, highly refined, DMSO < 3% (IP346)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort continues.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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

Ingestion Nausea, vomiting. Diarrhoea.

Skin contact Oil acne. The product contains a small amount of sensitising substance. May cause an allergic skin reaction.

Eye contact May cause temporary eye irritation.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

SHELL TURBO OIL T 46

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant 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

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

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 In case of spills, beware of slippery floors and surfaces. Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Avoid discharge into water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up In case of spills, beware of slippery floors and surfaces. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid inhalation of vapours and contact with skin and eyes. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Provide adequate ventilation.

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. Store at room temperature.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

8.2. Exposure controls

SHELL TURBO OIL T 46

Protective equipment

Appropriate engineering controls	Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Wear chemical splash goggles. EN 166
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Neoprene. Nitrile rubber. (>0.35mm coating thickness) Breakthrough time for gloves >480 min. EN 374
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Take off immediately all contaminated clothing and wash it before reuse.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Gas filter, type A EN 136/140/145/143/149

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Clear. Yellow.
Odour	Slight. Hydrocarbons.
pH	No information available.
Melting point	<=-27°C
Initial boiling point and range	> 280°C @ 760 mm Hg
Flash point	>=220°C
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: ~1.0 % Upper flammable/explosive limit: ~10 %
Vapour pressure	< 0.5 Pa @ 20°C
Vapour density	> 1
Relative density	0.858 @ 15°C
Bulk density	858 kg/m³
Solubility(ies)	Insoluble in water.
Partition coefficient	Pow: >6
Auto-ignition temperature	> 320°C
Viscosity	6.9 cSt @ 100°C 46 cSt @ 40°C

SHELL TURBO OIL T 46

Explosive properties	Not considered to be explosive.
Oxidising properties	No information available.

9.2. Other information

Other information	No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	The following materials may react with the product: Strong oxidising agents.

10.4. Conditions to avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

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

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} >5000 mg/kg, Dermal, Rabbit

Skin corrosion/irritation

Animal data	Slightly irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Slightly irritating.

Respiratory sensitisation

Respiratory sensitisation	No information available.

Skin sensitisation

Skin sensitisation	No information available.

Germ cell mutagenicity

Genotoxicity - in vitro	No information available.

Carcinogenicity

Carcinogenicity	No information available.

Reproductive toxicity

SHELL TURBO OIL T 46

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion May cause discomfort if swallowed.

Skin contact Oil acne. The product contains a small amount of sensitising substance. May cause an allergic skin reaction.

Eye contact May cause temporary eye irritation.

SECTION 12: Ecological Information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Acute toxicity - fish LC_{50}, : >100 mg/l, Fish

Acute toxicity - aquatic invertebrates EC_{50}, : >100 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC_{50}, : >100 mg/l, Algae

12.2. Persistence and degradability

Persistence and degradability Not expected to be readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product contains potentially bioaccumulating substances.

Partition coefficient Pow: >6

12.4. Mobility in soil

Mobility The product is insoluble in water and will spread on the water surface.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste should be treated as controlled waste. Do not puncture or incinerate, even when empty.

SHELL TURBO OIL T 46

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

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

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

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

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

15.2. Chemical safety assessment

Not applicable.

Inventories

EU - EINECS/ELINCS
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

SECTION 16: Other information

SHELL TURBO OIL T 46

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
CAS: Chemical Abstracts Service.
DNEL: Derived No Effect Level.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
Kow: Octanol-water partition coefficient.
LC_{50}: Lethal Concentration to 50 % of a test population.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
vPvB: Very Persistent and Very Bioaccumulative.
IARC: International Agency for Research on Cancer.
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
cATpE: Converted Acute Toxicity Point Estimate.
BCF: Bioconcentration Factor.
BOD: Biochemical Oxygen Demand.
EC_{50}: 50% of maximal Effective Concentration.
LOAEC: Lowest Observed Adverse Effect Concentration.
LOAEL: Lowest Observed Adverse Effect Level.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
LOEC: Lowest Observed Effect Concentration.
DMEL: Derived Minimal Effect Level.
EL50: Exposure Limit 50
hPa: Hectopascal
LL50: Lethal Loading fifty
OECD: Organisation for Economic Co-operation and Development
POW: Octanol-water partition coefficient
SCBA: self-contained breathing apparatus
STP: Sewage Treatment Plant
VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Revision comments

This is first issue.

Revision date

26/07/2017

Revision

01

SDS number

52153

Version number

1.000

SHELL TURBO OIL T 46

SDS status	Approved.
Signature	K Winter
Risk phrases in full	Not classified.
Hazard statements in full	H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H317 May cause an allergic skin reaction. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. EUH208 Contains N-1-NAPHTHYLANILINE. May produce an allergic reaction.