



SAFETY DATA SHEET
according to the Global Harmonized System

SDS # : 082872

MOTO 4 ROADSTAR 10W-40

Issuing date: 2018-01-01

Revision Date: 2018-01-01

Version 1

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER
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Product identifier

Product name	MOTO 4 ROADSTAR 10W-40
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Other means of identification

Number	9SI
Substance/mixture	Mixture

Recommended use of the chemical and restrictions on use

Identified uses	Automotive (motor) oil, 4-stroke.
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Details of the supplier of the safety data sheet

Supplier	TOTAL OIL ASIA PACIFIC PTE LTD 331 North Bridge Road #23-01 Odeon Towers Singapore 188720 Tel: +65 6879 2200 Fax: +65 6879 2203
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	TOTAL LUBRIFIANTS 562 Avenue du Parc de L'ile 92029 Nanterre Cedex FRANCE Tel: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71
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See section 16 for additional information

For further information, please contact:

Contact Point	HSE
E-mail Address	ms.ap-sds@total.com

Emergency telephone

Asia-Pacific: +65 3158 1074
Middle-East: +44 1235 239671

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)



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GHS Label elements, including precautionary statementsSignal word **None**Hazard Statements
None**Other hazards which do not result in classification**

Physical-Chemical Properties Contaminated surfaces will be extremely slippery
Environmental properties The product may form an oil film on the water surface that may stop the oxygen exchange.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Mixture****Chemical nature** Mineral oil of petroleum origin

Chemical Name	CAS-No	EC-No	Weight %
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	265-157-1	10-<20

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346**4. FIRST AID MEASURES****Description of necessary first-aid measures**

General advice IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse.

Inhalation Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration.



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Ingestion	Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Protection of First-aiders	First aider needs to protect himself. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
<u>Most important symptoms/effects, acute and delayed</u>	
Skin contact	Not classified based on available data.
Eye contact	Not classified based on available data.
Inhalation	Not classified based on available data. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified based on available data. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Carbon dioxide (CO₂). ABC powder. Foam. Water spray or fog.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Special Hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Combustion products include sulphur oxides (SO₂ and SO₃) and Hydrogen sulphide H₂S. Phosphorous oxides. Nitrogen oxides (NO_x). Mercaptans. Zinc oxides.

Advice for fire-fighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Other information

Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.



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6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

Environmental precautions

General Information Do not allow material to contaminate ground water system. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar non-combustible materials.

Methods for cleaning up Dispose of contents/container in accordance with local regulation. In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Other information

Personal Protective Equipment See Section 8 for more detail.

Waste treatment See section 13.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

Prevention of fire and explosion Take precautionary measures against static discharges.

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

Conditions for safe storage, including any incompatibilities



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Technical measures/Storage conditions

Keep away from food, drink and animal feedingstuffs. Keep in a banded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Store at room temperature. Protect from moisture.

Materials to Avoid

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined).

Appropriate engineering controls

Engineering Measures

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment (PPE)

Personal Protective Equipment

General Information

Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product ITSELF. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.

Respiratory protection

None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387): Type A/P1. Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Eye Protection

If splashes are likely to occur, wear: Safety glasses with side-shields. EN 166.

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Type 4/6.



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Hand Protection

Hydrocarbon-proof gloves: Fluorinated rubber, Nitrile rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Color	yellow
Physical State @20°C	liquid
Odor	Characteristic
Odor Threshold	No information available

Important health safety and environmental information

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		Not applicable	
Melting point/range		Not applicable	
Boiling point/boiling range		No information available	
Flash point	242 °C 468 °F		ASTM D92 ASTM D92.
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
upper		No information available	
Lower		No information available	
Vapor Pressure		No information available	
Vapor density		No information available	
Relative density	0.8678	@ 15 °C	ASTM D4052
Density	867.8 kg/m ³	@ 15 °C	ASTM D4052
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		No information available	
Autoignition temperature		No information available	



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Decomposition temperature		No information available	
Viscosity, kinematic	99.44 mm ² /s	@ 40 °C	ASTM D445
Explosive properties	Not explosive		
Oxidizing Properties	Not applicable		
Possibility of hazardous reactions	None under normal processing		

Other information

Freezing Point No information available

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	None under normal processing.
<u>Chemical stability</u>	Stable under recommended storage conditions.
<u>Possibility of hazardous reactions</u>	No dangerous reaction known under conditions of normal use.
<u>Conditions to avoid</u>	Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat and sparks.
<u>Materials to Avoid</u>	Strong oxidizing agents.

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Combustion products include sulphur oxides (SO₂ and SO₃) and Hydrogen sulphide H₂S. Mercaptans. Nitrogen oxides (NO_x). Phosphorous oxides. Zinc oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Not classified based on available data. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified based on available data. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Skin contact	Not classified based on available data.
Eye contact	Not classified based on available data.



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Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Acute toxicity - Product Information**

Oral Not classified based on available data.
2E-07 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

Dermal Not classified based on available data.
2E-07 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

Inhalation Not classified based on available data.
2E-07 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Distillates (petroleum), hydrotreated heavy paraffinic	LD50 > 5000 mg/kg bw (rat - OECD 420)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5 mg/l (aerosol) (rat - OECD 403)

Skin corrosion/irritation Not classified based on available data.

Serious eye damage/eye irritation Not classified based on available data.

Sensitization Not classified based on available data.

Carcinogenicity Not classified based on available data. During use in engines, contamination of oil with low levels of combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

Germ Cell Mutagenicity Not classified based on available data

Reproductive toxicity Not classified based on available data.

Target Organ Effects (STOT) None known

STOT - single exposure Not classified based on available data

STOT - repeated exposure Not classified based on available data



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Aspiration hazard Not classified based on available data.

Other adverse effects Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not classified based on available data.

Acute aquatic toxicity - Product Information

No information available.

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7	EL50 (48h) > 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	

Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7		NOEL (21d) 10 mg/l (Daphnia magna - QSAR Petrotox)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	

Effects on terrestrial organisms No information available.

Persistence and degradability

No information available.



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Bioaccumulative potential**Product Information** No information available.**logPow** No information available**Component Information**

Chemical Name	log Pow
Distillates (petroleum), hydrotreated heavy paraffinic - 64742-54-7	-

Mobility**Soil** Given its physical and chemical characteristics, the product generally shows low soil mobility.**Air** Loss by evaporation is limited.**Water** The product is insoluble and floats on water.**Other adverse effects****General Information** No information available.**13. DISPOSAL CONSIDERATIONS****Waste from Residues / Unused Products** Should not be released into the environment. Do not empty into drains. Dispose of in accordance with all applicable national environmental laws and regulations. Where possible recycling is preferred to disposal or incineration.**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.**Other information** Refer to section 8 for safety and protective measures for disposal personnel.**14. TRANSPORT INFORMATION****ADR/RID** Not regulated**IMDG/IMO** Not regulated**ICAO/IATA** Not regulated**ADN** Not regulated



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15. REGULATORY INFORMATION

Further information

No information available

National regulatory information

No information available

16. OTHER INFORMATION

Issuing date: 2018-01-01
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Revision Note No information available.

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

Legend

Section 8 ACGIH - American Conference of Governmental Industrial Hygienists

TWA - Time Weight Average

STEL - Short Term Exposure Limits

S* - Skin notation

Ceiling: Maximum limit value

Additional details on the supplier of the product



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DUBAI Supplier	TOTAL MARKETING MIDDLE EAST FZE Burjuman Business Tower, 11th Floor Sheikh Khalifa Bin Zayed Road Dubai P.O. Box 14871 U.A.E Tel: +971 4 709 50 00 Fax: +971 4 351 91 54	CAMBODIA Supplier	TOTAL CAMBODGE ANINA Building 6th Floor, No 240, St. 271, B.P600, 12351 Phnom Penh, Cambodia Tel: +855 23 218 630 Fax: +855 23 217 662
INDIA Supplier	TOTAL OIL INDIA PVT. LTD. 3rd Floor, The Leela Galleria, Andheri - Kurla Road, Andheri (East), Mumbai Maharashtra State, INDIA 400059 Tel: +91 22 6723 2500 Fax: +91 22 6723 2600	JORDAN Supplier	TOTAL JORDAN Reem Center, 4th Floor 244 Arar Street, Wadi Saqra P.O. Box 831285, Amman 11183 Jordan Tel: +962 6 500 80 05 Fax: +962 6 500 80 08
LEBANON Supplier	TOTAL LIBAN Rue Achrafieh, Imm. Tilal Bloc B, 2ème Etage B.P. 11-3636 Beyrouth - Liban Tel : + 961 1 21 22 50 Fax: + 961 1 21 21 33	PAKISTAN Supplier	TOTAL PARCO PAKISTAN LTD 10 Tariq Block, New Garden Town Lahore 54700, Pakistan Tel: +92 42 111 709 709 Fax: +92 42 354 683 66
PAPUA NEW GUINEA Supplier	TOTAL OIL ASIA PACIFIC PTE LTD - PNG Cuthbertson Street Level 4, Cuthbertson House PO BOX 1784 Port Moresby Papua New Guinea Tel: +675 320 2141 Fax: +675 320 3951	SAUDI ARABIA Supplier	SAUDI TOTAL PETROLEUM PRODUCTS CO. LTD 704, Zahran Business Center Sultan street - Tower A , 7th floor PO Box 4861, Jeddah 21463 K.S.A Tel: +966 12 22 56 300 Fax: +966 12 22 56 311

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the Safety Data Sheet