Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

# 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Shell Morlina S2 BL 10

Product code : 001D7737

Manufacturer or supplier's details

Manufacturer/Supplier : Shell India Markets Private Limited

(U23201TN2004PTC053147) 2nd Floor, Campus 4A RMZ Millenia Park

143 Dr. MGR Road, Perungudi

CHENNAI 600096 India

Telephone : (+91) 04443450000 Telefax : (+91) 04443451516

Emergency telephone : +91 22 6516 1058

number

Recommended use of the chemical and restrictions on use

Recommended use : Machine oil.

# 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Highly refined mineral oils and additives.

The highly refined mineral oil contains <3% (w/w) DMSO-

extract, according to IP346.

#### **Hazardous components**

Chemical name	CAS-No. EC-No.	Classification (67/548/EEC)	Classification (REGULATION	Concentration [%]
	Registration	(0170107220)	` (EC) No	[,~]
	number		1272/2008)	
Distillates	64742-53-6		Asp. Tox. 1; H304	80 - 95
(petroleum),				
hydrotreated light				
naphthenic				
Phenol, isopropylated, phosphate (3:1) [Triphenyl phosphate >5%]	68937-41-7	Xn-N; R48/22- R62-R63-R51/53	Repr. 2; H361 STOT RE 2; H373 Aquatic Chronic 2; H411	0.1 - 0.9
Butylated hydroxytoluene	128-37-0	N; R50/53	Aquatic Chronic 1; H410 Aquatic Acute 1; H400	0.1 - 0.24

For explanation of abbreviations see section 16.

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

#### 3. HAZARDS IDENTIFICATION

### Classification (REGULATION (EC) No 1272/2008)

Aspiration hazard : Category 1 Chronic aquatic toxicity : Category 3

Label elements

Hazard pictograms

Signal word : Danger

Hazard statements : PHYSICAL HAZARDS:

Not classified as a physical hazard according to CLP criteria.

**HEALTH HAZARDS:** 

H304 May be fatal if swallowed and enters airways.

**ENVIRONMENTAL HAZARDS:** 

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:** 

P273 Avoid release to the environment.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER/doctor.

P331 Do NOT induce vomiting.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Hazardous components which must be listed on the label: Contains Distillates (petroleum), hydrotreated light naphthenic.

### Other hazards

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Used oil may contain harmful impurities. Not classified as flammable but will burn.

#### 4. FIRST-AID MEASURES

If inhaled : No treatment necessary under normal conditions of use.

If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with

water and follow by washing with soap if available.

2 / 15 800001005925 IN

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.

If persistent irritation occurs, obtain medical attention.

If swallowed : If swallowed, do not induce vomiting: transport to nearest

medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

Most important symptoms and effects, both acute and delayed

If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever.

The onset of respiratory symptoms may be delayed for

several hours after exposure.

Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance. Ingestion may result in nausea, vomiting and/or diarrhoea.

Protection of first-aiders

: When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the

incident, injury and surroundings.

Notes to physician : Treat symptomatically.

Call a doctor or poison control center for guidance.

#### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon

dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing

media

: Do not use water in a jet.

Specific hazards during

firefighting

: Hazardous combustion products may include:

A complex mixture of airborne solid and liquid particulates and

gases (smoke).

Carbon monoxide may be evolved if incomplete combustion

occurs.

Unidentified organic and inorganic compounds.

Specific extinguishing

methods

: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Special protective equipment

for firefighters

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

#### **6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures Environmental precautions : Avoid contact with skin and eyes.

: Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate

barriers.

Local authorities should be advised if significant spillages

cannot be contained.

Methods and materials for containment and cleaning up

Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth

or other containment material.

Reclaim liquid directly or in an absorbent.

Soak up residue with an absorbent such as clay, sand or other

suitable material and dispose of properly.

Additional advice : For guidance on selection of personal protective equipment

see Chapter 8 of this Safety Data Sheet.

For guidance on disposal of spilled material see Chapter 13 of

this Safety Data Sheet.

### 7. HANDLING AND STORAGE

General Precautions : Use local exhaust ventilation if there is risk of inhalation of

vapours, mists or aerosols.

Use the information in this data sheet as input to a risk assessment of local circumstances to help determine

appropriate controls for safe handling, storage and disposal of

this material.

Advice on safe handling : Avoid prolonged or repeated contact with skin.

Avoid inhaling vapour and/or mists.

When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning

materials in order to prevent fires.

Avoidance of contact : Strong oxidising agents.

Product Transfer : This material has the potential to be a static accumulator.

Proper grounding and bonding procedures should be used

during all bulk transfer operations.

### Storage

4 / 15 800001005925

IN

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

Other data : Keep container tightly closed and in a cool, well-ventilated

place.

Use properly labeled and closable containers.

Store at ambient temperature.

Packaging material : Suitable material: For containers or container linings, use mild

steel or high density polyethylene.

Unsuitable material: PVC.

Container Advice : Polyethylene containers should not be exposed to high

temperatures because of possible risk of distortion.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m3	IN OEL
Oil mist, mineral	Not Assigned	STEL (Mist)	10 mg/m3	IN OEL
Oil mist, mineral	Not Assigned	TWA ((inhalable fraction))	5 mg/m3	US. ACGIH Threshold Limit Values
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m3	India. Permissible levels of certain chemical substances in work environment.
Oil mist, mineral	Not Assigned	(Mist)	10 mg/m3	India. Permissible levels of certain chemical substances in work environment.
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m3	OSHA Z-1
	Not Assigned	TWA (Inhalable fraction)	5 mg/m3	ACGIH

# Biological occupational exposure limits

No biological limit allocated.

# **Monitoring Methods**

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure

5 / 15

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA) , Germany http://www.dguv.de/inhalt/index.jsp

L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

### **Engineering measures**

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

#### General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

### Personal protective equipment

#### **Protective measures**

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

Respiratory protection

: No respiratory protection is ordinarily required under normal conditions of use.

In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.

specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.

Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

Hand protection Remarks

Eye protection

: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

. . .

: If material is handled such that it could be splashed into eyes,

protective eyewear is recommended.

Skin and body protection : Skin protection is not ordinarily required beyond standard

work clothes.

It is good practice to wear chemical resistant gloves.

Thermal hazards : Not applicable

#### **Environmental exposure controls**

General advice : Take appropriate measures to fulfill the requirements of

relevant environmental protection legislation. Avoid

contamination of the environment by following advice given in

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

> Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant

before discharge to surface water.

Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing

vapour.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

: Liquid at room temperature. Appearance

Colour : light brown

Odour : Slight hydrocarbon Odour Threshold : Data not available рН : Not applicable

pour point : -30 °C / -22 °FMethod: ISO 3016

Initial boiling point and boiling : > 280 °C / 536 °Festimated value(s)

range

Flash point : 150 °C / 302 °F

Method: ASTM D93 (PMCC)

: Data not available Evaporation rate Flammability (solid, gas) : Data not available

Upper explosion limit : Typical 10 %(V)

Lower explosion limit : Typical 1 %(V)

Vapour pressure : < 0.5 Pa (20 °C / 68 °F)

estimated value(s)

Relative vapour density : > 1estimated value(s) : 0.881 (15 °C / 59 °F) Relative density

: 881 kg/m3 (15.0 °C / 59.0 °F) Density

Method: ISO 12185

Solubility(ies)

Water solubility : negligible

Solubility in other solvents : Data not available

Partition coefficient: n-

octanol/water

: Pow: > 6(based on information on similar products)

Auto-ignition temperature : > 320 °C / 608 °F

8 / 15 800001005925

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

Viscosity

Viscosity, dynamic : Data not available

: 10 mm2/s (40.0 °C / 104.0 °F) Viscosity, kinematic

Method: ASTM D445

2.3 mm2/s (100 °C / 212 °F)

Method: ASTM D445

: Not classified Explosive properties

Oxidizing properties : Data not available

Conductivity : This material is not expected to be a static accumulator.

Decomposition temperature : Data not available

#### 10. STABILITY AND REACTIVITY

: The product does not pose any further reactivity hazards in Reactivity

addition to those listed in the following sub-paragraph.

Chemical stability : Stable.

Possibility of hazardous

Conditions to avoid

reactions

: Reacts with strong oxidising agents.

: Extremes of temperature and direct sunlight.

Incompatible materials : Strong oxidising agents.

Hazardous decomposition

products

: Hazardous decomposition products are not expected to form

during normal storage.

### 11. TOXICOLOGICAL INFORMATION

Information given is based on data on the components and Basis for assessment

> the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a

whole, rather than for individual component(s).

exposure

Information on likely routes of : Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

**Acute toxicity** 

**Product:** 

: LD50 rat: > 5,000 mg/kg Acute oral toxicity

Remarks: Expected to be of low toxicity:

9/15 800001005925

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

Remarks: Aspiration into the lungs may cause chemical

pneumonitis which can be fatal.

Acute inhalation toxicity : Remarks: Not considered to be an inhalation hazard under

normal conditions of use.

Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg

Remarks: Expected to be of low toxicity:

#### Skin corrosion/irritation

#### **Product:**

Remarks: Expected to be slightly irritating., Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.

# Serious eye damage/eye irritation

### **Product:**

Remarks: Expected to be slightly irritating.

### Respiratory or skin sensitisation

#### **Product:**

Remarks: Not expected to be a skin sensitiser.

# Germ cell mutagenicity

# **Product:**

Remarks: Not considered a mutagenic hazard.

# Carcinogenicity

# **Product:**

Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skinpainting studies., Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Material	GHS/CLP Carcinogenicity Classification
Highly refined mineral oil	No carcinogenicity classification.
Butylated hydroxytoluene	No carcinogenicity classification.
Phenol, isopropylated, phosphate (3:1) [Triphenyl phosphate >5%]	No carcinogenicity classification.

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

### Reproductive toxicity

#### **Product:**

Remarks: Not expected to impair fertility., Not expected to be a developmental toxicant.

#### STOT - single exposure

#### **Product:**

Remarks: Not expected to be a hazard.

### STOT - repeated exposure

### **Product:**

Remarks: Not expected to be a hazard.

# **Aspiration toxicity**

#### **Product:**

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

### **Further information**

#### **Product:**

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Slightly irritating to respiratory system.

# 12. ECOLOGICAL INFORMATION

Basis for assessment : Ecotoxicological data have not been determined specifically

for this product.

Information given is based on a knowledge of the components

and the ecotoxicology of similar products.

Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).(LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test

extract).

# **Ecotoxicity**

#### **Product:**

11 / 15 800001005925

IN

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

Toxicity to fish (Acute

toxicity)

Remarks: Expected to be harmful:

LL/EL/IL50 10-100 mg/l

Toxicity to crustacean (Acute

toxicity)

Remarks: Expected to be harmful:

LL/EL/IL50 10-100 mg/l

Toxicity to algae/aquatic

plants (Acute toxicity)

Remarks: Expected to be harmful:

LL/EL/IL50 10-100 mg/l

Toxicity to fish (Chronic

toxicity)

: Remarks: Data not available

Toxicity to crustacean

(Chronic toxicity)

Toxicity to microorganisms

(Acute toxicity)

: Remarks: Data not available

: Remarks: Data not available

Components:

**Butylated hydroxytoluene:** 

M-Factor : 1

Persistence and degradability

**Product:** 

Biodegradability : Remarks: Expected to be not readily biodegradable., Major

constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: Contains components with the potential to

bioaccumulate.

Partition coefficient: n-

octanol/water

: Pow: > 6Remarks: (based on information on similar products)

Mobility in soil

**Product:** 

Mobility : Remarks: Liquid under most environmental conditions., If it

enters soil, it will adsorb to soil particles and will not be

mobile.

Remarks: Floats on water.

Other adverse effects

no data available

Product:

Additional ecological

information

: Product is a mixture of non-volatile components, which are not

expected to be released to air in any significant quantities.,

Not expected to have ozone depletion potential,

photochemical ozone creation potential or global warming

potential.

Poorly soluble mixture., May cause physical fouling of aquatic

12 / 15 800001005925 IN

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

organisms.

Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

#### 13. DISPOSAL CONSIDERATIONS

### **Disposal methods**

Waste from residues : Waste product should not be allowed to contaminate soil or

ground water, or be disposed of into the environment. Waste, spills or used product is dangerous waste.

Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

Local regulations may be more stringent than regional or national requirements and must be complied with.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably

to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

#### 14. TRANSPORT INFORMATION

#### **International Regulations**

#### **ADR**

Not regulated as a dangerous good

#### IATA-DGR

Not regulated as a dangerous good

#### **IMDG-Code**

Not regulated as a dangerous good

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category : Not applicable
Ship type : Not applicable
Product name : Not applicable
Special precautions : Not applicable

#### Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage,

for special precautions which a user needs to be aware of or

needs to comply with in connection with transport.

**Additional Information**: MARPOL Annex 1 rules apply for bulk shipments by sea.

Version 3.1 Revision Date 04.10.2016 Print Date 05.10.2016

#### 15. REGULATORY INFORMATION

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

The Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 (amended version issued 2000). The Factories Act, 1948, The Second Schedule: Permissible levels of certain chemical substances in work environment, as amended through 1987. India Central motor Vehicles (Amendment) Rules 1993.

# Other international regulations

# The components of this product are reported in the following inventories:

EINECS : All components listed or polymer exempt.

TSCA : All components listed.

#### **16. OTHER INFORMATION**

### Full text of R-Phrases

R48/22 Harmful: danger of serious damage to health by prolonged exposure if

swallowed.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in

the aquatic environment.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

R62 Possible risk of impaired fertility.

R63 Possible risk of harm to the unborn child.

#### **Full text of H-Statements**

H304 May be fatal if swallowed and enters airways.
H361 Suspected of damaging fertility or the unborn child.

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.
H411 Toxic to aquatic life with long lasting effects.

#### Full text of other abbreviations

Aquatic Acute Acute aquatic toxicity
Aquatic Chronic Chronic aquatic toxicity
Asp. Tox. Aspiration hazard
Repr. Reproductive toxicity

STOT RE Specific target organ toxicity - repeated exposure

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this

document can be looked up in reference literature (e.g.

scientific dictionaries) and/or websites.

SDS Regulation : Regulation 1907/2006/EC

**Further information** 

Other information : A vertical bar (|) in the left margin indicates an amendment

from the previous version.

Version 3.1 Revision Date 04.10.2016

Print Date 05.10.2016

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.