Version 1.3

Product code

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

Product name	:	Shell Rimula R6 M 10W-40

: 001C4593

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 number	: +91 22 6516 1058			
Recommended use of the chemical and restrictions on use				
Recommended use	Engine oil.			

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature :	Synthetic base oil and additives. Highly refined mineral oil. The highly refined mineral oil contains <3% (w/w) DMSO- extract, according to IP346. The highly refined mineral oil is only present as additive diluent.
:	* contains one or more of the following CAS-numbers: 64742- 53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69- 9.

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Zinc dialkyldithiophosphate	113706-15-3	Xi; R38 Xi; R41 N; R51/53	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411	1 - 2.4
Interchangeable low viscosity base oil	Not Assigned		Asp. Tox. 1; H304	0 - 90

Material Safety Data Sheet

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(<20,5 cSt @40°C) *		

For explanation of abbreviations see section 16.

3. HAZARDS IDENTIFICATION

Based on available data this substance / mixture does not meet the classification criteria.

Label elements Hazard pictograms Signal word	No Hazard Symbol requiredNo signal word
Hazard statements	 PHYSICAL HAZARDS: Not classified as a physical hazard according to CLP criteria. HEALTH HAZARDS: Not classified as a health hazard under CLP criteria. ENVIRONMENTAL HAZARDS: Not classified as environmental hazard according to CLP criteria.
Precautionary statements	 Prevention: No precautionary phrases. Response: No precautionary phrases. Storage: No precautionary phrases. Disposal: No precautionary phrases.

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	
General advice	: Not expected to be a health hazard when used under normal conditions.
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. If persistent irritation occurs, obtain medical attention.
In case of eye contact	 Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing.

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	If persistent irritation occurs, obta	ain medical attention.
If swallowed	: In general no treatment is necess are swallowed, however, get med	
Most important symptoms and effects, both acute and delayed	: Oil acne/folliculitis signs and sym of black pustules and spots on th Ingestion may result in nausea, v	e skin of exposed areas.
Protection of first-aiders	: When administering first aid, ens appropriate personal protective e incident, injury and surroundings.	equipment according to the
Notes to physician	: Treat symptomatically.	

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 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	: Avoid contact with skin and eyes.
Environmental precautions	 Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

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	Local authorities should be advised cannot be contained.	1 if significant spillages
Methods and materials for containment and cleaning up	: Slippery when spilt. Avoid acciden Prevent from spreading by making or other containment material. Reclaim liquid directly or in an abso Soak up residue with an absorbent suitable material and dispose of pro-	a barrier with sand, earth orbent. such as clay, sand or other
Additional advice	: For guidance on selection of perso see Chapter 8 of this Safety Data S For guidance on disposal of spilled this Safety Data Sheet.	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		
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.

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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 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

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Engineering measures :	The level of protection and types of co vary depending upon potential exposu controls based on a risk assessment of Appropriate measures include: Adequate ventilation to control airborn Where material is heated, sprayed or n	re conditions. Select of local circumstances. e concentrations. mist formed, there is
	greater potential for airborne concentration General Information: Define procedures for safe handling and controls. Educate and train workers in the haza measures relevant to normal activities product. Ensure appropriate selection, testing a equipment used to control exposure, e equipment, local exhaust ventilation. Drain down system prior to equipment maintenance. Retain drain downs in sealed storage for subsequent recycle. Always observe good personal hygien washing hands after handling the mate drinking, and/or smoking. Routinely w protective equipment to remove contain contaminated clothing and footwear th Practice good housekeeping.	nd maintenance of rds and control associated with this and maintenance of e.g. personal protective break-in or pending disposal or e measures, such as erial and before eating, vash work clothing and minants. Discard
Personal protective equipment		

Protective measures

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

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. 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 :	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

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	suitable chemical protection. PV gloves Suitability and durability of usage, e.g. frequency and durati resistance of glove material, dex from glove suppliers. Contamina replaced. Personal hygiene is a care. Gloves must only be worn gloves, hands should be washed Application of a non-perfumed m	of a glove is dependent on on of contact, chemical terity. Always seek advice ted gloves should be key element of effective hand on clean hands. After using and dried thoroughly.
	For continuous contact we recombreakthrough time of more than for > 480 minutes where suitable short-term/splash protection we recognize that suitable gloves of may not be available and in this time maybe acceptable so long a and replacement regimes are fol a good predictor of glove resistadependent on the exact compos Glove thickness should be typicadepending on the glove make ar	240 minutes with preference e gloves can be identified. For recommend the same, but fering this level of protection case a lower breakthrough as appropriate maintenance lowed. Glove thickness is not nce to a chemical as it is ition of the glove material. ally greater than 0.35 mm
Eye protection	: If material is handled such that it protective eyewear is recommen	
Skin and body protection	: Skin protection is not ordinarily r work clothes. It is good practice to wear chemi	
Thermal hazards	: Not applicable	
Environmental exposure of	controls	
General advice	: Take appropriate measures to fur relevant environmental protection contamination of the environmer Chapter 6. If necessary, preven- being discharged to waste water treated in a municipal or industria before discharge to surface water Local guidelines on emission lim must be observed for the dischar	n legislation. Avoid at by following advice given in t undissolved material from . Waste water should be al waste water treatment plant er. its for volatile substances

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid at room temperature.
Colour	: amber
Odour	: Slight hydrocarbon
Odour Threshold	: Data not available
рН	: Not applicable

vapour.

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pour point	:	-42 °C / -44 °FMethod: ASTM D97
Initial boiling point and boiling range	:	> 280 °C / 536 °Festimated value(s)
Flash point	:	240 °C / 464 °F Method: ASTM D92 (COC)
Evaporation rate	:	Data not available
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)
Relative density	:	0.867 (15 °C / 59 °F)
Density	:	867 kg/m3 (15.0 °C / 59.0 °F) Method: ASTM D4052
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
Viscosity		
Viscosity, dynamic	:	Data not available
Viscosity, kinematic	:	90 mm2/s (40.0 °C / 104.0 °F) Method: ASTM D445
		13.6 mm2/s (100 °C / 212 °F) Method: ASTM D445
Explosive properties	:	Not classified
Oxidizing properties	:	Data not available
Conductivity	:	This material is not expected to be a static accumulator.

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Decomposition temperature	:	Data not available	
10. STABILITY AND REACTIVITY	,		
Reactivity	:	The product does not pose any further addition to those listed in the following	
Chemical stability	:	Stable.	
Possibility of hazardous reactions	:	Reacts with strong oxidising agents.	
Conditions to avoid	:	Extremes of temperature and direct su	nlight.
Incompatible materials	:	Strong oxidising agents.	

incompatible materials	. Strong oxidising agents.
Hazardous decomposition products	: Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

	Basis for assessment	:	Information given is based on data on the components and 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).
	Information on likely routes of exposure	:	Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.
Αсι	ute toxicity		
	Product:		
	Acute oral toxicity	:	LD50 rat: > 5,000 mg/kg Remarks: Expected to be of low toxicity:
	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 or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Serious eye damage/eye irritation

Product:

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Remarks: Expected to be slightly irritating.

Components:

Zinc dialkyldithiophosphate:

Remarks: Based on available data, the classification criteria are not met.

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.

Material	GHS/CLP Carcinogenicity Classification		
Highly refined mineral oil	No carcinogenicity classification.		

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:

Not considered an aspiration hazard.

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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: Continuous contact with used engine oils has caused skin cancer in animal tests.

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:		
Toxicity to fish (Acute toxicity)		Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to crustacean (Acute toxicity)		Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to algae/aquatic plants (Acute toxicity)		Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to fish (Chronic toxicity)	:	Remarks: Data not available
Toxicity to crustacean (Chronic toxicity)	:	Remarks: Data not available
Toxicity to microorganisms (Acute toxicity)	:	Remarks: Data not available
Pareistoneo and dogradability		

Persistence and degradability

Product:

Biodegradability	:	Remarks: Expected to be not readily biodegradable., Major	
	constituents are expected to be inherently biodegradable contains components that may persist in the environmer		

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Bioaccumulative potential			
Product:			
Bioaccumulation	: Remarks: Contains components w bioaccumulate.	: Remarks: Contains components with the potential to bioaccumulate.	
Partition coefficient: n- octanol/water	: Pow: > 6Remarks: (based on infor	: 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 <u>Product:</u>			
Additional ecological information	expected to be released to air in a Not expected to have ozone deple photochemical ozone creation poto potential.	Poorly soluble mixture., May cause physical fouling of aquatic	

13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses
	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.
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.
Local legislation Remarks	: Disposal should be in accordance with applicable regional,

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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 Ship type Product name Special precautions Special precautions for user	 Not applicable Not applicable Not applicable Not applicable
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.

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

R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements

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H304 H315 H318 H411	May be fatal if swallowed and enters airways Causes skin irritation. Causes serious eye damage. Toxic to aquatic life with long lasting effects.			
Full text of other abbreviations				
Aquatic Chronic Asp. Tox. Eye Dam. Skin Irrit.	Chronic aquatic toxicity Aspiration hazard Serious eye damage Skin irritation			
Abbreviations and Acro	nyms : The standard abbreviations and ac document can be looked up in refe scientific dictionaries) and/or webs	erence literature (e.g.		
SDS Regulation	: Regulation 1907/2006/EC			
Further information				
Other information	: A vertical bar () in the left margin i from the previous version.	indicates an amendment		

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.