Version 1.4	Revision Date 27.05.2016 Print Date 28.05.20		
1. PRODUCT AND COMPANY ID	ENTIFICATION		
Product name	: Shell Naturelle S4 Gear Fluid 100		
Product code	: 001E9934		
Manufacturer or supplier's Supplier	details : Shell Eastern Petroleum (Pte) Ltd		
	(196000089G) The Metropolis Tower 1,		
	9 North Buona Vista Drive, #07-01 Singapore 138588		
	Singapore		
Telephone	: (+65) 62632975		
Telefax	: (+65) 62632049		
Emergency telephone number	: +65 6263 2975		
Email Contact for Safety Data Sheet	: If you have any enquiries about the please email lubricantSDS@shel		
Recommended use of the c	hemical and restrictions on use		
Recommended use	: Gear lubricant.		

2. HAZARDS IDENTIFICATION	

GHS Classification

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

GHS label elements	
Hazard pictograms	: No Hazard Symbol required
Signal word	: No signal word
Hazard statements	 PHYSICAL HAZARDS: Not classified as a physical hazard under GHS criteria. HEALTH HAZARDS: Not classified as a health hazard under GHS criteria. ENVIRONMENTAL HAZARDS: Not classified as an environmental hazard under GHS criteria.
Precautionary statements	: Prevention: No precautionary phrases. Response: No precautionary phrases. Storage: No precautionary phrases.

Version 1.4 Revision Date 27.05.2016 Print Date 28.05.2016 Disposal: No precautionary phrases. Other hazards which do not result in classification 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. 3. COMPOSITION/INFORMATION ON INGREDIENTS Chemical nature Blend of synthetic esters and additives. Hazardous components **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. If persistent irritation occurs, obtain medical attention. If swallowed : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice. : Oil acne/folliculitis signs and symptoms may include formation Most important symptoms and effects, both acute and of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea. delayed 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. Treat symptomatically. Notes to physician : 5. FIRE-FIGHTING MEASURES

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

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		dioxide, sand or earth may be used for	or small fires only.
Unsuitable extinguishing media	:	Do not use water in a jet.	
Specific hazards during firefighting	:	Hazardous combustion products may A complex mixture of airborne solid a gases (smoke). Carbon monoxide may be evolved if i occurs. Unidentified organic and inorganic co	nd liquid particulates and ncomplete combustion
Specific extinguishing methods	:	Use extinguishing measures that are circumstances and the surrounding e	
Special protective equipment for firefighters	:	Proper protective equipment including gloves are to be worn; chemical resis large contact with spilled product is ex Breathing Apparatus must be worn w a confined space. Select fire fighter's relevant Standards (e.g. Europe: EN	tant suit is indicated if xpected. Self-Contained hen approaching a fire in clothing approved to

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.
		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

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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.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

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

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http://www.osha.gov/	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				
Institut für Arbeitsschutz Deutsc http://www.dguv.de/inhalt/index.	hen Gesetzlichen Unfallversicherung jsp et de Securité, (INRS), France http:				
Engineering measures	: The level of protection and types vary depending upon potential ex controls based on a risk assessm Appropriate measures include: Adequate ventilation to control air	posure conditions. Select nent of local circumstances.			
	Where material is heated, spraye greater potential for airborne cond				
	General Information: Define procedures for safe handli controls.				
	Educate and train workers in the measures relevant to normal active product.				
	Ensure appropriate selection, test equipment used to control exposit equipment, local exhaust ventilati	ure, e.g. personal protective ion.			
	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 hy washing hands after handling the drinking, and/or smoking. Routing protective equipment to remove of contaminated clothing and footwe Practice good housekeeping.	material and before eating, ely wash work clothing and contaminants. Discard			
Personal protective equipmen					

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.
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	Where air-filtering respirators are appropriate combination of masl Select a filter suitable for the cor and vapours [Type A/Type P bo	k and filter. mbination of organic gases
Hand protection		
Remarks	: Where hand contact with the pro- gloves approved to relevant star US: F739) made from the follow suitable chemical protection. PV gloves Suitability and durability of usage, e.g. frequency and durat 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	ndards (e.g. Europe: EN374, ing materials may provide 'C, neoprene or nitrile rubber of a glove is dependent on ion of contact, chemical cterity. Always seek advice ated gloves should be key element of effective hand on clean hands. After using d and dried thoroughly.
	For continuous contact we recor breakthrough 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 fo a good predictor of glove resista dependent on the exact compos Glove thickness should be typica depending on the glove make ar	240 minutes with preference e gloves can be identified. For recommend the same, but ffering this level of protection case a lower breakthrough as appropriate maintenance llowed. Glove thickness is not ince to a chemical as it is sition of the glove material. ally greater than 0.35 mm
Eye protection	: If material is handled such that in protective eyewear is recommer	
Skin and body protection	: Skin protection is not ordinarily r work clothes. It is good practice to wear chem	
Thermal hazards	: Not applicable	
Environmental exposure co	ntrols	
General advice	: Take appropriate measures to fu	ulfill the requirements of

relevant environmental protection legislation. Avoid

before discharge to surface water.

vapour.

contamination of the environment by following advice given in 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

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

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Appearance:liquidColour:yellowColour:Slight hydrocarbonOdour Threshold:Data not availablepH:Not applicablepour point:Method: Unspecified Not applicableMetting point/freezing point:> 280 °C / 536 °F estimated value(s)range:280 °C / 536 °F Method: ASTM D93 (PMCC)Evaporation rate::Evaporation rate:Data not availableFlammability (solid, gas):Data not availableUpper explosion limit:Typical 10 %(V)Lower explosion limit:Typical 1 %(V)Vapour pressure:> 10.52 Pa (20 °C / 68 °F) estimated value(s)Relative vapour density:> 1 estimated value(s)Relative density:> 20 kg/m3Method: ASTM D4052Solubility(ies)::Data not availableVater solubility:negligibleSolubility in other solvents:Data not availableViscosity::Pow: > 6(based on information on similar products) octanol/waterAuto-ignition temperature:> 320 °C / 608 °FViscosity::Data not available	9. PHYSICAL AND CHEMICAL PROPERTIES				
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octanol/water Auto-ignition temperature : > 320 °C / 608 °F Viscosity Viscosity, dynamic : Data not available	Solubility in other solvents	:	Data not available		
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Viscosity, dynamic : Data not available	Auto-ignition temperature	:	> 320 °C / 608 °F		
Viscosity, dynamic : Data not available	Viscosity				
	•	:	Data not available		
Viscosity, kinematic : 100 mm2/s (40.0 °C / 104.0 °F) Method: ASTM D445	Viscosity, kinematic	:	100 mm2/s (40.0 °C / 104.0 °F)		

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Explosive properties	: Not classified	
Oxidizing properties	: Data not available	
Conductivity Decomposition temperature	This material is not expected to beData not available	e a static accumulator.

10. STABILITY AND	REACTIVITY

Reactivity	: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.	
Chemical stability	: Stable.	
Possibility of hazardous reactions	: Reacts with strong oxidising agents.	
Conditions to avoid	: 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.	I

11. TO	XICOLOGIC	CAL INFORM	IATION

Basi	s 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).
	mation on likely routes of osure	:	Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.
Acute to	xicity		
Pro	duct:		
Acut	e oral toxicity	:	LD50 rat: > 5,000 mg/kg Remarks: Expected to be of low toxicity:
Acut	e inhalation toxicity	:	Remarks: Not considered to be an inhalation hazard under normal conditions of use.
Acut	e 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: 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 expected to be carcinogenic. Reproductive toxicity Product: Remarks: Not expected to be carcinogenic. StoT - single exposure Product: Remarks: Not expected to be a hazard.	Version 1.4	Revision Date 27.05.2016	Print Date 28.05.2016
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: 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 expected to be a skin sensitiser. Germ cell mutagenicity Product: Remarks: Not expected to be carcinogenic. Reproductive toxicity Product: Remarks: Not expected to be carcinogenic. StoT - single exposure Product:			
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Germ cell mutagenicity Product: Remarks: Not considered a mutagenic hazard. Carcinogenicity Product: Remarks: Not expected to be carcinogenic.	Product:		
Product: : Remarks: Not considered a mutagenic hazard. Carcinogenicity Product: Product: : Remarks: Not expected to be carcinogenic. 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	e a skin sensitiser.	
Remarks: Not considered a mutagenic hazard. Carcinogenicity Product: Remarks: Not expected to be carcinogenic. Reproductive toxicity Product: : <t< td=""><td>Germ cell mutagenicity</td><td></td><td></td></t<>	Germ cell mutagenicity		
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a developmental toxicant. STOT - single exposure <u>Product:</u>	Product:		
Product:			fertility., Not expected to be
Product:			
Remarks: Not expected to be a hazard.			
	Remarks: Not expected to be	e a hazard.	

STOT - repeated exposure

Product:

Remarks: Not expected to be a hazard.

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Print Date 28.05.2016

Product:

Not considered an aspiration hazard.

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	: Information given is based on product data, 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

Persistence and degradability

Product:

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Biodegradability	: Remarks: Readily biodegradable.	
Bioaccumulative potential		
Product:		
Bioaccumulation	: Remarks: Contains components with bioaccumulate.	n the potential to
Partition coefficient: n- octanol/water	: Pow: > 6Remarks: (based on inform	ation on similar products)
Mobility in soil		
Product:		
Mobility	 Remarks: Liquid under most environ enters soil, it will adsorb to soil partio mobile. Remarks: Floats on water. 	
Other adverse effects		
no data available <u>Product:</u>		
Additional ecological information	 Product is a mixture of non-volatile of expected to be released to air in any Not expected to have ozone depletion photochemical ozone creation potential. Poorly soluble mixture., May cause porganisms. 	v significant quantities., on potential, tial or global warming

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.

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Annex II of MARPOL 73/78 and the IB	C Code
 Not applicable Not applicable Not applicable Not applicable Not applicable 	
: Special Precautions: Refer to Cha for special precautions which a use needs to comply with in connection	er needs to be aware of or
: MARPOL Annex 1 rules apply for	bulk shipments by sea.
	us good us good • Annex II of MARPOL 73/78 and the IB : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Special Precautions: Refer to Cha for special precautions which a use needs to comply with in connection

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

Local Regulations

Workplace Safety and Health Act & Workplace Safety and Health (General Provision) Regulations	This product is not subject to the requirements in the Act/Regulations.			
Fire Safety Act and Fire Safety (Petroleum & Flammable Materials) Regulations	This product is not subject to the requirements in the Act/Regulations.			
Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations	This product is not subject to the requirements in the Act/Regulations.			
Environmental Protection and Management Act and Environmental Protection andThis product is not subject to control under this Act/ Regulation.Management (Hazardous Substances) RegulationsAct/ Regulation.				
Other international regulations				
The components of this product are reported in the following inventories:				

TSCA : All components listed.	EINECS	:	All components listed or polymer exempt.
	TSCA	:	All components listed.

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16. OTHER INFORMATION		
Abbreviations and Acronyms	: The standard abbreviations and ac document can be looked up in refe scientific dictionaries) and/or webs	rence literature (e.g.
Further information Other information	: A vertical bar () in the left margin i from the previous version.	ndicates 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.