According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Revision Date: 10/19/2015	Print Date: 01/05/2016
: Shell Omala S4 GX 220	
: 001D7851	
etails	
: Shell Oil Products US PO Box 4427 Houston TX 77210-4427 USA	
: (+1) 877-276-7285 :	
Pr	
: 877-242-7400	
emical and restrictions on use : Gear lubricant.	
e	 Shell Omala S4 GX 220 001D7851 etails Shell Oil Products US PO Box 4427 Houston TX 77210-4427 USA (+1) 877-276-7285 877-504-9351 877-242-7400 emical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS Label element

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. 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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 2.0

Revision Date: 10/19/2015

Print Date: 01/05/2016

Used oil may contain harmful impurities. Not classified as flammable but will burn.

The classification of this material is based on OSHA HCS 2012 criteria.

Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

: Blend of polyolefins and additives.

Hazardous components

SECTION 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 wa- ter 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.
Most important symptoms and effects, both acute and delayed	:	Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. 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.
Immediate medical attention, special treatment	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Foam, water spray or fog. Dry chemical powder, carbon diox- ide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	:	Do not use water in a jet.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 2.0	Revision Date: 10/19/2015	Print Date: 01/05/2016
Specific hazards during fire- fighting	 Hazardous combustion products m A complex mixture of airborne solid gases (smoke). Carbon monoxide may be evolved occurs. Unidentified organic and inorganic 	d and liquid particulates and if incomplete combustion
Specific extinguishing meth- ods	: Use extinguishing measures that a cumstances and the surrounding e	
Special protective equipment for firefighters	: Proper protective equipment includ gloves are to be worn; chemical re large contact with spilled product is Breathing Apparatus must be worr a confined space. Select fire fighte relevant Standards (e.g. Europe: I	sistant suit is indicated if s expected. Self-Contained when approaching a fire in r's clothing approved to

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	Avoid contact with skin and eyes.
Environmental precautions	:	Use appropriate containment to avoid environmental contami- nation. 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.

SECTION 7. HANDLING AND STORAGE

Technical measures	 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 as- sessment of local circumstances to help determine appropri- ate controls for safe handling, storage and disposal of this material.

According to OSHA Hazard Communication Standard, 29 CFR

1910.1200

Version 2.0	Revision Date: 10/19/2015	Print Date: 01/05/2016
Precautions for safe handling	: Avoid prolonged or repeated co Avoid inhaling vapour and/or m When handling product in drum worn and proper handling equip Properly dispose of any contam rials in order to prevent fires.	ists. is, safety footwear should be oment should be used.
Avoidance of contact	: Strong oxidising agents.	
Product Transfer	: This material has the potential t Proper grounding and bonding during all bulk transfer operation	procedures should be used
Storage		
Other data	: Keep container tightly closed an place. Use properly labeled and closa	
	Store at ambient temperature.	
Packaging material	: Suitable material: For container steel or high density polyethyler Unsuitable material: PVC.	U
Container Advice	: Polyethylene containers should peratures because of possible r	

SECTION 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 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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 2.0	Revision Date: 10/19/2015	Print Date: 01/05/2016
	vary depending upon potential e controls based on a risk assessr Appropriate measures include: Adequate ventilation to control a	ment of local circumstances.
	Where material is heated, spraye greater potential for airborne cor	
	General Information: Define procedures for safe hand controls. Educate and train workers in the	-
	measures relevant to normal act product. Ensure appropriate selection, tes equipment used to control expos equipment, local exhaust ventila Drain down system prior to equip nance. Retain drain downs in sealed sto subsequent recycle.	sting and maintenance of sure, e.g. personal protective tion. pment break-in or mainte- prage pending disposal or
	Always observe good personal h washing hands after handling the drinking, and/or smoking. Routin protective equipment to remove taminated clothing and footwear Practice good housekeeping.	e material and before eating, nely wash work clothing and contaminants. Discard con-
Personal protective equip	ment	
Respiratory protection	 No respiratory protection is ordin conditions of use. In accordance with good industri- tions should be taken to avoid be If engineering controls do not ma- tions to a level which is adequate select respiratory protection equi- cific conditions of use and meeti- Check with respiratory protective Where air-filtering respirators are priate combination of mask and Select a filter suitable for the cor- and vapours [Type A/Type P bootsting] 	ial hygiene practices, precau- reathing of material. aintain airborne concentra- e to protect worker health, ipment suitable for the spe- ng relevant legislation. e equipment suppliers. e suitable, select an appro- filter. mbination of organic gases
Hand protection Remarks	: Where hand contact with the pro- gloves approved to relevant star US: F739) made from the followi suitable chemical protection. PV gloves Suitability and durability of usage, e.g. frequency and durati sistance of glove material, dexte glove suppliers. Contaminated g Personal hygiene is a key eleme Gloves must only be worn on cle	ndards (e.g. Europe: EN374, ing materials may provide 'C, neoprene or nitrile rubber of a glove is dependent on ion of contact, chemical re- rity. Always seek advice from loves should be replaced. ent of effective hand care.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

rsion 2.0	Revision Date: 10/19/2015	Print Date: 01/05/201
	gloves, hands should be wash cation of a non-perfumed mois For continuous contact we reco through time of more than 240 480 minutes where suitable glo short-term/splash protection we recognize that suitable gloves may not be available and in thi time maybe acceptable so long and replacement regimes are f a good predictor of glove resist dependent on the exact compo Glove thickness should be typi depending on the glove make a	turizer is recommended. ommend gloves with break- minutes with preference for > oves can be identified. For e recommend the same, but offering this level of protection s case a lower breakthrough g as appropriate maintenance followed. Glove thickness is no tance to a chemical as it is osition of the glove material. cally greater than 0.35 mm
Eye protection	: If material is handled such that protective eyewear is recomme	
Skin and body protection	: Skin protection is not ordinarily work clothes. It is good practice to wear cher	
Protective measures	: Personal protective equipment mended national standards. Cl	
Environmental exposure of	controls	
General advice	 Take appropriate measures to vant environmental protection of of the environment by following necessary, prevent undissolve charged to waste water. Waste municipal or industrial waste w discharge to surface water. Local guidelines on emission li must be observed for the disch vapour. 	legislation. Avoid contaminatio g advice given in Chapter 6. If d material from being dis- e water should be treated in a ater treatment plant before mits for volatile substances

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid at room temperature.	
Colour	: amber	
Odour	: Slight hydrocarbon	
Odour Threshold	: Data not available	
рН	: Not applicable	
pour point	: -45 °C / -49 °FMethod: ISO 3016	
Initial boiling point and boiling range	: > 280 °C / 536 °Festimated value(s)	
Flash point	: 250 °C / 482 °F	

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

rsion 2.0	Revision Date: 10/19/2015	Print Date: 01/05/2010
	Method: ISO 2592	
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	: 0.881 (15 °C / 59 °F)	
Density	: 881 kg/m3 (15.0 °C / 59.0 °F) 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 o	n similar products)
Auto-ignition temperature	: > 320 °C / 608 °F	
Viscosity Viscosity, dynamic	: Data not available	
Viscosity, kinematic	: 230 mm2/s (40 °C / 104 °F) Method: ASTM D445	
Explosive properties	: Not classified	
Oxidizing properties	: Data not available	
Conductivity	: This material is not expected to b	pe a static accumulator.
Decomposition temperature	: Data not available	

SECTION 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.
7 / 14		800001015792

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 2.0	Revision Date: 10/19/2015	Print Date: 01/05/2016
Possibility of hazardous reac- tions	: Reacts with strong oxidising agent	S.
Conditions to avoid	: Extremes of temperature and direct	ct sunlight.
Incompatible materials	: Strong oxidising agents.	
Hazardous decomposition products	: Hazardous decomposition product during normal storage.	s are not expected to form

SECTION 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.

Acute 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:

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:

Remarks: Not expected to be a skin sensitiser.

Germ cell mutagenicity

Product:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 2.0	Revision Date: 10/19/2015	Print Date: 01/05/2016
	: Remarks: Not considered a mutagenic	hazard.
Carcinogenicity		
Product:		
Remarks: Not expected to be o	carcinogenic.	
IARC	No component of this product present at l equal to 0.1% is identified as probable, po human carcinogen by IARC.	
ACGIH	No component of this product present at l equal to 0.1% is identified as a carcinoge gen by ACGIH.	
OSHA	No component of this product present at l equal to 0.1% is identified as a carcinoge gen by OSHA.	
NTP	No component of this product present at I equal to 0.1% is identified as a known or a by NTP.	

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.

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 2.0

Revision Date: 10/19/2015

as far as possible.

Remarks: Slightly irritating to respiratory system.

SECTION 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 representa- tive of the product as a whole, rather than for individual com- ponent(s).(LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).
Ecotoxicity		
<u>Product:</u> Toxicity to fish (Acute toxici- ty)	:	Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	:	Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to algae (Acute tox- icity)	:	Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/I
Toxicity to fish (Chronic tox- icity)	:	Remarks: Data not available
Toxicity to daphnia and other aquatic invertebrates (Chron-ic toxicity)	:	Remarks: Data not available
Toxicity to bacteria (Acute toxicity)	:	Remarks: Data not available
Persistence and degradabilit	y	
Product: Biodegradability	:	Remarks: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegrada- ble, but contains components that may persist in the environ- ment.
Bioaccumulative potential		
<u>Product:</u> Bioaccumulation	:	Remarks: Contains components with the potential to bioac- cumulate.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ersion 2.0	Revision Date: 10/19/2015	Print Date: 01/05/2016
Mobility in soil		
Product:		
Mobility	: Remarks: Liquid under most en If it enters soil, it will adsorb to s mobile.	
	Remarks: Floats on water.	
Other adverse effects no data available		
Product:		
Additional ecological infor- mation	 Product is a mixture of non-vola expected to be released to air in Not expected to have ozone dep cal ozone creation potential or g 	n any significant quantities. pletion potential, photochemi-
	Poorly soluble mixture. May cause physical fouling of a	quatic organisms.

SECTION 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 na- tional 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.

SECTION 14. TRANSPORT INFORMATION

National Regulations

US Department of Transportation Classification (49 CFR Parts 171-180)

Not regulated as a dangerous good

International Regulation

IATA-DGR

Not regulated as a dangerous good

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 2.0 Revision Date: 10/19/2015 Print Date: 01/05/2016 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 Not applicable Ship type : 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

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

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : No OSHA Hazards

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ., Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	No SARA Hazards
SARA 302	:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Water Act

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

California Prop 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
• •	ct are reported in the following inventories: All components listed or polymer exempt.
TSCA	All components listed.
DSL	All components listed.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 2.0

Revision Date: 10/19/2015

SECTION 16. OTHER INFORMATION

Further information

NFPA Rating (Health, Fire, Reac- 0, 1, 0 tivity)

Due to the conversion of this product to GHS classification and labelling, there has been a significant change to the nature of the information presented in chapter 2. A vertical bar () in the left margin indicates an amendment from the previous version.

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.

> ACGIH = American Conference of Governmental Industrial **Hygienists** ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road AICS = Australian Inventory of Chemical Substances ASTM = American Society for Testing and Materials **BEL = Biological exposure limits** BTEX = Benzene, Toluene, Ethylbenzene, Xylenes CAS = Chemical Abstracts Service CEFIC = European Chemical Industry Council CLP = Classification Packaging and Labelling COC = Cleveland Open-Cup DIN = Deutsches Institut fur Normung DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level DSL = Canada Domestic Substance List EC = European Commission EC50 = Effective Concentration fifty ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals ECHA = European Chemicals Agency EINECS = The European Inventory of Existing Commercial **Chemical Substances** EL50 = Effective Loading fifty ENCS = Japanese Existing and New Chemical Substances Inventory EWC = European Waste Code GHS = Globally Harmonised System of Classification and Labelling of Chemicals IARC = International Agency for Research on Cancer IATA = International Air Transport Association IC50 = Inhibitory Concentration fifty IL50 = Inhibitory Level fifty IMDG = International Maritime Dangerous Goods INV = Chinese Chemicals Inventory IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables KECI = Korea Existing Chemicals Inventory LC50 = Lethal Concentration fifty LD50 = Lethal Dose fifty per cent. LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 2.0	Revision Date: 10/19/2015	Print Date: 01/05/2016
	LL50 = Lethal Loading fifty MARPOL = International Conver Pollution From Ships NOEC/NOEL = No Observed Eff served Effect Level OE_HPV = Occupational Expose PBT = Persistent, Bioaccumulati PICCS = Philippine Inventory of Substances PNEC = Predicted No Effect Con REACH = Registration Evaluatio Chemicals RID = Regulations Relating to In gerous Goods by Rail SKIN_DES = Skin Designation STEL = Short term exposure lim TRA = Targeted Risk Assessme TSCA = US Toxic Substances C TWA = Time-Weighted Average vPvB = very Persistent and very	fect Concentration / No Ob- ure - High Production Volume ive and Toxic Chemicals and Chemical ncentration on And Authorisation Of ternational Carriage of Dan- it nt control Act
Revision Date	: 10/19/2015	

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.