Version 1.2		Revision Date 2024.09.11	Print Date 2024.11.04	
1. PRODUCT AND COMPANY IDE	ENT	TIFICATION		
Chemical product name	:	Shell Omala S2 GX 460		
Product code	:	001F1182		
Manufacturer or supplier's d Supplier's company name, address and phone number	leta :			
Telephone Telefax		(+81) 03-3218-1780 (+81) 03-3218-1781		
Emergency telephone number	:	[Important notice for customer support] If you need support for product, please service centre. Lub Customer Service Centre (Lub CSC Tel. 0120-064-315 / Fax. 0120-264-315 E-mail. Inquiries-Lubes-JP@shell.com (Available for Japanese office hours on	C) (JP Toll free)	
Contact for Safety Data Sheet	:	If you have any enquiries about the coperation please email lubricantSDS@shell.com		
Recommended use of the chemical and restrictions on use				
Recommended use	:	Gear lubricant.		
Restrictions on use	:	This substance may not be used for any recommended without expert advice	y purpose other than	

2. HAZARDS IDENTIFICATION

GHS classification of chemical product Based on available data this substance / mixture does not meet the classification criteria.

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.

-

Shell Omala S2 GX 460

Version 1.2	Revision Date 2024.09.11	Print Date 2024.11.04
	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.Used oil may contain harmful impurities.Not classified as flammable but will burn.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Mixture
---------------------	---	---------

3.2 Mixtures

Chemical nature : Highly refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSOextract, according to IP346. Classification based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L).

Components

Contains no hazardous ingredients according to GHS

4. FIRST-AID MEASURES

If inhaled

: No treatment necessary under normal conditions of use.

Shell Omala S2 GX 460

Version 1.2	Revision Date 2024.09.11	Print Date 2024.11.04
	If symptoms persist, obtain medic	cal advice.
In case of skin contact	: Remove contaminated clothing. I water and follow by washing with If persistent irritation occurs, obta	soap if available.
In case of eye contact	: Flush eye with copious quantities Remove contact lenses, if preser rinsing. If persistent irritation occurs, obta	nt and easy to do. Continue
If swallowed	: In general no treatment is necess are swallowed, however, get me	
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).

Version 1.2	Revision Date 2024.09.11	Print Date 2024.11.04
6. ACCIDENTAL RELEASE MEAS	URES	
Personal precautions, protective equipment and emergency procedures	: Avoid contact with skin and eyes.	
Environmental precautions	: Use appropriate containment to pr Prevent from spreading or entering using sand, earth, or other appropri	g drains, ditches or rivers by
	Local authorities should be advised cannot be contained.	d if significant spillages
Methods and materials for containment and cleaning up	: Slippery when spilt. Avoid accider Prevent from spreading by making or other containment material. Reclaim liquid directly or in an abs Soak up residue with an absorben suitable material and dispose of pr	g a barrier with sand, earth sorbent. t such as clay, sand or other
Additional advice	: For guidance on selection of person see Section 8 of this Safety Data 3 For guidance on disposal of spiller this Safety Data Sheet.	Sheet.

7. HANDLING AND STORAGE	
Handling	
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 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.
Facial protective equipment	: If material is handled such that it could be splashed into eyes, protective eyewear is recommended.
Describe contact avoidance, etc	: Strong oxidising agents.
Product Transfer	: Proper grounding and bonding procedures should be used during all bulk transfer operations to avoid static accumulation.
Storage	
Other data	: Keep container tightly closed and in a cool, well-ventilated

800001029887 JP

Version 1.2	Revision Date 2024.09.11	Print Date 2024.11.04
	place. Use properly labeled and closable o	containers.
	Store at ambient temperature.	
Packaging material	: Suitable material: For containers or steel or high density polyethylene. Unsuitable material: PVC.	container linings, use mild
Container Advice	: Polyethylene containers should not temperatures because of possible r	

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Threshold limit value and permissible exposure limits for each component in the work environment

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned			JP OEL JSOH
	Further informa	ation: Group 1: c	arcinogenic to humar	าร
Oil mist, mineral	Not Assigned	OEL-M (Mist)	3 mg/m3	JP OEL JSOH
			whose OEL is set ba e III, Group 1: carcino	
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m3	OSHA Z-1
Oil mist, mineral	Not Assigned	TWA (Inhalable particulate matter)	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

rsion 1.2	Revision Date 2024.09.11	Print Date 2024.11.04
http://www.dguv.de/inhalt/index	schen Gesetzlichen Unfallversicherung x.jsp ne et de Securité, (INRS), France http:	
	s and application methods for chemica problems among workers (mhlw.go.jp)	I substances were
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 ent of local circumstances.
	Where material is heated, sprayed greater potential for airborne cond	
	General Information: Define procedures for safe handlin controls.	ng and maintenance of
	Educate and train workers in the measures relevant to normal activ product.	
	Ensure appropriate selection, tes equipment used to control exposu equipment, local exhaust ventilation	ure, e.g. personal protective on.
	Drain down system prior to equipr maintenance. Retain drain downs in sealed stor subsequent recycle.	
	Always observe good personal hy washing hands after handling the drinking, and/or smoking. Routine 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 equipm	ent	
Protective measures		

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

cond	espiratory protection is ordinarily required under normal tions of use.
	cordance with good industrial hygiene practices,
preca	autions should be taken to avoid breathing of material.
lf eng	ineering controls do not maintain airborne
conc healt spec	h, select respiratory protection equipment suitable for the fic conditions of use and meeting relevant legislation. k with respiratory protective equipment suppliers.

ersion 1.2	Revision Date 2024.09.11 Print Date 2024.11.04
	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 and particles [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 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.
Eye and face protection	: 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 co	ontrols
General advice	 Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Section 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

Version 1.2	Revision Date 2024.09.11 vapour.	Print Date 2024.11.04
	vapour.	
9. PHYSICAL AND CHEMICAL P	ROPERTIES	
Physical state	: Liquid at room temperature.	
Colour	: brown	
Odour	: Data not available	
Odour Threshold	: Data not available	
рН	: Not applicable	
pour point	: -12 °C / 10 °F Method: ISO 3016	
Melting / freezing point	Data not available	
Boiling point, initial boiling point and boiling range	: > 280 °C / 536 °Festimated value(s	3)
Flash point	: 260 °C / 500 °F Method: ISO 2592	
Evaporation rate	: Data not available	
Flammability		
Flammability (solid, gas)	: Not applicable	
Flammability (liquids)	: Not classified as flammable but wil	l burn.
Lower explosion limit and upp	per explosion limit / flammability limit	
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	: >5	
Density and / or relative dens	ity	
Relative density	: 0.904 (15 °C / 59 °F)	
Density	: 904 kg/m3 (15.0 °C / 59.0 °F) Method: ISO 12185	
Solubility(ies)		
Water solubility	: negligible	

Shell Omala S2 GX 460

ersion 1.2 Solubility in other solvents	Revision Date 2024.09.11Print Date 2024.11: Data not available
Partition coefficient: n- octanol/water	: log Pow: > 6 (based on information on similar products)
Auto-ignition point	: > 320 °C / 608 °F
Decomposition temperature	: Data not available
Viscosity	
Viscosity (Dynamic)	: Data not available
Viscosity, kinematic	: 460 mm2/s (40.0 °C / 104.0 °F) Method: ISO 3104
	30.8 mm2/s (100 °C / 212 °F) Method: ISO 3104
Particle characteristics	
Particle size	: Data not available
Explosive properties	: Classification Code: Not classified
	: Data not available
Oxidizing properties	

10. STABILITY AND REACTIVITY

Reactivity	: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.	1
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	: No decomposition if stored and applied as directed.	

11. TOXICOLOGICAL INFORMATION

Version 1.2 Basis for assessment	:	Revision Date 2024.09.11 Information given is based on data on the toxicology of similar products.Unles the data presented is representative of whole, rather than for individual compo	s indicated otherwise, the product as a
Information on likely routes of exposure	:	Skin and eye contact are the primary re although exposure may occur following	-
Acute toxicity			
Product:			
Acute oral toxicity	:	LD50 rat: > 5,000 mg/kg Remarks: Low toxicity Based on available data, the classifica	tion criteria are not met.
Acute inhalation toxicity	:	Remarks: Based on available data, the are not met.	classification criteria
Acute dermal toxicity	:	LD50 Rabbit: > 5,000 mg/kg Remarks: Low toxicity Based on available data, the classifica	tion criteria are not met.

Skin corrosion/irritation

Product:

Remarks: Slightly irritating to skin., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis., Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product:

Remarks: Slightly irritating to the eye., Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Product:

Remarks: Not a skin sensitiser. Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

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

Carcinogenicity

Product:

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

Shell Omala S2 GX 460

Version 1.2	Revision Date 2024.09.11	Print Date 2024.11.04

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.

Reproductive toxicity

Product:

Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

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

STOT - repeated exposure

Product:

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

Aspiration toxicity

Product:

Not 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

Version 1.2	Revision Date 2024.09.11 Print Date 2024.11.04
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).
cotoxicity	
Product:	
Toxicity to fish (Acute	:
toxicity)	Remarks: Based on available data, the classification criteria are not met. Practically non toxic: LL/EL/IL50 > 100 mg/I
Toxicity to crustacean (Acute	:
toxicity)	Remarks: Based on available data, the classification criteria are not met. Practically non toxic: LL/EL/IL50 > 100 mg/I
Toxicity to algae/aquatic	
plants (Acute toxicity)	Remarks: Based on available data, the classification criteria are not met. Practically non toxic: LL/EL/IL50 > 100 mg/I
Toxicity to fish (Chronic toxicity)	: Remarks: Based on available data, the classification criteria are not met.
Toxicity to crustacean (Chronic toxicity)	: Remarks: Based on available data, the classification criteria are not met.
Toxicity to microorganisms (Acute toxicity)	: Remarks: Based on available data, the classification criteria are not met.
Persistence and degradability	
Product:	
Biodegradability	: Remarks: Not readily biodegradable., Major constituents are inherently biodegradable, but contains components that may persist in the environment., Persistent per IMO criteria., International Oil Pollution Compensation (IOPC) Fund definition: "A non-persistent oil is oil, which, at the time of shipment, consists of hydrocarbon fractions, (a) at least 50% of which, by volume, distills at a temperature of 340°C (645°F) and (b) at least 95% of which, by volume, distils at a temperature of 370°C (700°F) when tested by the ASTM Method D-86/78 or any subsequent revision thereof."

Bioaccumulation

Version 1.2	Revision Date 2024.09.11	Print Date 2024.11.04	
Product:			
Bioaccumulation	: Remarks: Contains components w bioaccumulate.	ith the potential to	
Partition coefficient: n- octanol/water	: log Pow: > 6Remarks: (based on i products)	nformation on similar	
Mobility in soil			
Product:			
Mobility			
Other adverse effects			
no data available <u>Product:</u>			
Additional ecological information	 Does not have ozone depletion po ozone creation potential or global v is a mixture of non-volatile compor released to air in any significant qu conditions of use. Poorly soluble mixture., Causes ph organisms. Mineral oil does not cause chronic organisms at concentrations less t 	warming potential., Product nents, which will not be uantities under normal nysical fouling of aquatic toxicity to aquatic	

Hazardous to the ozone layer

Not applicable

13. DISPOSAL CONSIDERATIONS

Disposal methods

Chemicals (residual waste)	 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. Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand
	established beforehand.

Version 1.2	Revision Date 2024.09.11	Print Date 2024.11.04
	MARPOL - see International Convention Pollution from Ships (MARPOL 73/78) w technical aspects at controlling pollutions	hich provides
Contaminated containers and packaging	Dispose in accordance with prevailing re to a recognized collector or contractor. the collector or contractor should be est Disposal should be in accordance with a national, and local laws and regulations.	The competence of ablished beforehand. applicable regional,
Local legislation		
Remarks	Disposal should be in accordance with a national, and local laws and regulations.	

14. TRANSPORT INFORMATION

Regulatory information when there are domestic regulations

Refer to section 15 for specific national regulation.

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

Maritime transport in bulk according to IMO instruments

MARPOL Annex 1 rules apply for bulk shipments by sea.

Special precautions for user

Remarks

: Special Precautions: Refer to Section 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

15. REGULATORY INFORMATION

Related Regulations

Fire Service Law

Group 4, Type 4 petroleums, (6000 litre), Hazardous rank III

Chemical Substance Control Law

Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Prioriy Assessment Chemical Substance

Harmful Substances Required Permission for Manufacture Not applicable Substances Prevented From Impairment of Health Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Existing Chemicals having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 >=90 - <100 Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Cordinance on Prevention of Organic Solvent Poisoning Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant	sion 1.2 Industrial Safety and Health La		te 2024.09.11	Print Date 2024.11.0
Not applicable Harmful Substances Required Permission for Manufacture Not applicable Substances Prevented From Impairment of Health Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Informatic on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 Condinance on Prevention of Article 18) Chemical name Number Mineral oil 168 Ordinance on Prevention of Aracads Due to Specified Chemical Substances Not applicable Cordinance on Prevention of Organic Solvent Poisoning Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Harmful Substances Prohibite	d from Manufa	icture	
Not applicable Substances Prevented From Impairment of Health Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 >=90 - <100 Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Vessel Safety Law Not applicable Vessel Safety Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Not applicable			
Substances Prevented From Impairment of Health Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2. (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Informatic on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2. (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Harmful Substances Required	Permission fo	or Manufacture	
Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 >=90 - <100 Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Cordinance on Prevention of Organic Solvent Poisoning Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Not applicable			
Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 >=90 - <100 Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Mineral oil 168 >=90 - <100 Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Azards Due to Specified Chemical Substances Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Substances Prevented From I	mpairment of H	lealth	
on Existing Chemičals having Mutagenicity Not applicable Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Informatio on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 >=90 - <100 Substances Subject to be Indicated Names Article 57-2 (Enforcement Order Article 18) Chemical name Number Number Mineral oil 168 Concentration of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Cordinance on Prevention of Organic Solvent Poisoning Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not classified as marine pollutant Water Pollution Control Law	Not applicable	-		
Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 >=90 - <100 Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Mineral oil 168 >=90 - <100 Substance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law			IIs having Mutage	nicity - Annex 2: Informatior
on Notified Substances having Mutagenicity Not applicable Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 >=90 - <100 Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Not applicable			
Substances Subject to be Notified Names Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Aviation Law Not applicable Mot applicable Mot applicable Mot applicable Aviation Law Not applicable Mot applicable <th></th> <th></th> <th></th> <th>nicity - Annex 1: Informatio</th>				nicity - Annex 1: Informatio
Article 57-2 (Enforcement Order Table 9) Chemical name Number Concentration (% Mineral oil 168 >=90 - <100	Not applicable			
Chemical name Number Concentration (% Mineral oil Mineral oil 168 >=90 - <100	Substances Subject to be Not	ified Names		
Mineral oil 168 >=90 - <100		Table 9)		
Substances Subject to be Indicated Names Article 57 (Enforcement Order Article 18) Chemical name Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Mot applicable Vessel Safety Law Not applicable Mot applicable Marine Pollution and Sea Disaster Prevention etc Law Not classifie				· · · · · · · · · · · · · · · · · · ·
Article 57 (Enforcement Order Article 18) Number Chemical name Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law			100	>=90 - <100
Chemical name Number Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Aviation Law Not classified as marine pollutant Water Pollution Control Law	•			
Mineral oil 168 Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Mot applicable Vessel Safety Law Not applicable Aviation Law Not applicable Mot applicable Variation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law		rticle 18)		Number
Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable Ordinance on Prevention of Organic Solvent Poisoning Not applicable Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances) Not applicable Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law				
Poisonous and Deleterious Substances Control Law Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Not applicable Enforcement Order of the Indu Substances)	-	-	ttached table 1 (Dangerous
Not applicable Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Not applicable			
Environment and Promotion of Improvements to the Management Thereof Not applicable Vessel Safety Law Not applicable Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Poisonous and Deleterious Su Not applicable	ubstances Con	trol Law	
Not applicable Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law			-	
Aviation Law Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Vessel Safety Law			
Not applicable Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Not applicable			
Marine Pollution and Sea Disaster Prevention etc Law Not classified as marine pollutant Water Pollution Control Law	Aviation Law			
Not classified as marine pollutant Water Pollution Control Law	Not applicable			
			n etc Law	
Oil emissions regulations (Law Art. 2-5, Enforcement Order Art. 3-4)	Water Pollution Control Law			
	Oil emissions regulations (Law A	Art. 2-5, Enforce	ment Order Art. 3-	4)

Version 1.2	Revision Date 2024.09.11	Print Date 2024.11.04		
Waste Disposal and Public Cleansing Law				
Industrial waste				
The components of this product are reported in the following inventories:				
TSCA	: All components listed.			
ENCS	: All components listed.			

16. OTHER INFORMATION

Abbreviations and Acronyms

AllC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation: DSL - Domestic Substances List (Canada): ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC -New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances: (Q)SAR - (Quantitative) Structure Activity Relationship: REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG -Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Further information

Training advice	:	Provide adequate information, instruction and training for operators.
Other information	:	A vertical bar () in the left margin indicates an amendment from the previous version.

Shell Omala S2 GX 460

Version 1.2	Revision Date 2024.09.11	Print Date 2024.11.04
Sources of key data used to compile the Safety Data Sheet	: The quoted data are from, but not sources of information (e.g. toxico Health Services, material suppliers IUCLID date base, EC 1272 regula	logical data from Shell s' data, CONCAWE, EU

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

JP / EN