Shell Alexia S6

Version 2.0	Revision Date 24.06.2017	Print Date 25.06.2017
1. PRODUCT AND COMPANY ID	NTIFICATION	
Product name	: Shell Alexia S6	
Product code	: 001F1644	
Manufacturer or supplier's o		
Supplier	 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 cl	emical and restrictions on use	

Recommended use : Engine oil.

2. HAZARDS IDENTIFICATION

GHS Classification

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. 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.

Shell Alexia S6

Version 2.0	Revision Date 24.06.2017	Print Date 25.06.2017
	Disposal: No precautionary phrases.	
Sensitising components	: Contains calcium sulphonate.May reaction.	/ produce an allergic

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

- : Highly refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSOextract, according to IP346.
- : * contains one or more of the following CAS-numbers: 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69-9.

Chemical name	CAS-No.	Classification	
Calcium alkaryl sulphonate **	Not Assigned	Aquatic Chronic4; H413	[%] 5 - 10
Overbased sulphurised calcium phenate	68784-26-9	Aquatic Chronic4; H413	5 - 10
Alkylphenol	27193-86-8	Repr.1A; H360 Aquatic Acute1; H400 Aquatic Chronic1; H410 Skin Corr.1C; H314 Eye Dam.1; H318	< 1.5
Calcium alkaryl sulphonate **	Not Assigned	Skin Sens.1B; H317 Aquatic Chronic4; H413	0.1 - 0.9
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *	Not Assigned	Asp. Tox.1; H304	0 - 90

Hazardous components

** polymer exempt.

For explanation of abbreviations see section 16.

4. FIRST-AID MEASURES

General advice

: Not expected to be a health hazard when used under normal

ersion 2.0		evision Date 24.06.2017 Inditions.	Print Date 25.06.201
If inhaled		o treatment necessary under norm symptoms persist, obtain medical a	
In case of skin contact	Wa	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	Re rir	Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. 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	of	l acne/folliculitis signs and sympto black pustules and spots on the sl gestion may result in nausea, vom	kin of exposed areas.
Protection of first-aiders	ap	When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.	
Notes to physician	: Tr	eat symptomatically.	
FIRE-FIGHTING MEASURES			
Suitable extinguishing media		oam, water spray or fog. Dry chemi oxide, sand or earth may be used t	
Unsuitable extinguishing media	: Do	o not use water in a jet.	
Specific hazards during firefighting	A ga	azardous combustion products ma complex mixture of airborne solid a uses (smoke). arbon monoxide may be evolved if	and liquid particulates an
		curs. nidentified organic and inorganic co	
Specific extinguishing methods	Ur : Us		ompounds. appropriate to local

Version 2.0	Revision Date 24.06.2017 Print Date 25.06.2017
6. ACCIDENTAL RELEASE MEAS	URES
Personal precautions, protective equipment and emergency procedures Environmental precautions	 Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Local authorities should be advised if significant spillages
Methods and materials for containment and cleaning up	 cannot be contained. Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
Additional advice	: For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.
7. HANDLING AND STORAGE	
General Precautions	 Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
Advice on safe handling	 Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.
Avoidance of contact	: Strong oxidising agents.
Product Transfer	: This material has the potential to be a static accumulator. Proper grounding and bonding procedures should be used during all bulk transfer operations.
Storage	
Other data	: Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers.

Shell Alexia S6

Version 2.0	Revision Date 24.06.2017	Print Date 25.06.2017
	Store at ambient temperature.	
Packaging material	: Suitable material: For containers of steel or high density polyethylene. Unsuitable material: PVC.	
Container Advice	: Polyethylene containers should no temperatures because of possible	

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	PEL (long term) (Mist)	5 mg/m3	SG OEL
Oil mist, mineral	Not Assigned	PEL (short term) (Mist)	10 mg/m3	SG OEL
Oil mist, mineral	Not Assigned	TWA ((inhalable fraction))	5 mg/m3	US. ACGIH Threshold Limit Values
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m3	Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances
Oil mist, mineral	Not Assigned	(Mist)	10 mg/m3	Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m3	OSHA Z-1
	Not Assigned	TWA (Inhalable fraction)	5 mg/m3	ACGIH

Components with workplace control parameters

Biological occupational exposure limits

No biological limit allocated.

Shell Alexia S6

Version 2.0

Revision Date 24.06.2017

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
	vary depending upon potential exposure conditions. Select
	controls based on a risk assessment of local circumstances.
	Appropriate measures include:
	Adequate ventilation to control airborne concentrations.

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

General Information:

Define procedures for safe handling and maintenance of controls.

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

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

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

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

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

Personal protective equipment

Protective measures

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

sion 2.0	Revision Date 24.06.2017	Print Date 25.06.20
Respiratory protection	 No respiratory protection is ordina conditions of use. In accordance with good industrial precautions should be taken to ave If engineering controls do not main concentrations to a level which is a health, select respiratory protectio specific conditions of use and mee Check with respiratory protective of Where air-filtering respirators are sappropriate combination of mask a Select a filter suitable for the combination and vapours [Type A/Type P boili 	hygiene practices, oid breathing of material. ntain airborne adequate to protect worker n equipment suitable for th eting relevant legislation. equipment suppliers. suitable, select an and filter. bination of organic gases
Hand protection Remarks	: Where hand contact with the prodigloves approved to relevant stand US: F739) made from the following suitable chemical protection. PVC gloves Suitability and durability of usage, e.g. frequency and duration resistance of glove material, dexter from glove suppliers. Contaminate replaced. Personal hygiene is a ke care. Gloves must only be worn or gloves, hands should be washed a Application of a non-perfumed mo	ards (e.g. Europe: EN374, g materials may provide , neoprene or nitrile rubber a glove is dependent on n of contact, chemical erity. Always seek advice ed gloves should be ey element of effective han n clean hands. After using and dried thoroughly.
	For continuous contact we recomme breakthrough time of more than 24 for > 480 minutes where suitable of short-term/splash protection we re- recognize that suitable gloves offer may not be available and in this ca- time maybe acceptable so long as and replacement regimes are follo a good predictor of glove resistant dependent on the exact composition Glove thickness should be typicall depending on the glove make and	40 minutes with preference gloves can be identified. For commend the same, but ring this level of protection ase a lower breakthrough appropriate maintenance wed. Glove thickness is no ce to a chemical as it is on of the glove material. y greater than 0.35 mm
Eye protection	: If material is handled such that it of protective eyewear is recommended	
Skin and body protection	 Skin protection is not ordinarily rec work clothes. It is good practice to wear chemica 	
Thermal hazards	: Not applicable	
Environmental exposure c	ontrols	
General advice	: Take appropriate measures to fulf	ill the requirements of

Shell Alexia S6

	Print Date 25.06.2017
Chapter 6. If necessary, prevent u being discharged to waste water. V treated in a municipal or industrial before discharge to surface water. Local guidelines on emission limits	undissolved material from Waste water should be waste water treatment plant s for volatile substances
	Revision Date 24.06.2017 contamination of the environment of Chapter 6. If necessary, prevent us being discharged to waste water. A treated in a municipal or industrial before discharge to surface water. Local guidelines on emission limits must be observed for the discharg vapour.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid at room temperature.
Colour Odour Odour Threshold pH pour point	 amber Slight hydrocarbon Data not available Not applicable <= -6 °C / <= 21 °FMethod: ASTM D97
Initial boiling point and boiling range	: > 280 °C / 536 °Festimated value(s)
Flash point	: >= 210 °C / >= 410 °F Method: ASTM D93 (PMCC)
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	: 0.954 (15 °C / 59 °F)
Density	: 954 kg/m3 (15.0 °C / 59.0 °F) Method: ASTM D4052
Solubility(ies)	
Water solubility	: negligible
Solubility in other solvents	: Data not available
Partition coefficient: n- octanol/water	: Pow: > 6(based on information on similar products)
Auto-ignition temperature	: > 320 °C / 608 °F

Shell Alexia S6

te 25.06.2017
nulator.

10. STABILITY AND REACTIVITY

Reactivity	The product does not pose any further reactivity hazards addition to those listed in the following sub-paragraph.	in
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 f during normal storage.	orm

11. TOXICOLOGICAL INFORMATION

	Basis for assessment	:	Information given is based on data on the components and the toxicology of similar products.Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).
	Information on likely routes of exposure	:	Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.
Αсι	ute toxicity		
	Product:		
	Acute oral toxicity	:	LD50 rat: > 5,000 mg/kg Remarks: Expected to be of low toxicity:

Shell Alexia S6

Version 2.0	Revision Date 24.06.2017	Print Date 25.06.2017
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 to	oxicity:

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.

Components:

Calcium alkaryl sulphonate **:

Remarks: May cause an allergic skin reaction in sensitive individuals.

Germ cell mutagenicity

Product:

: Remarks: Not considered a mutagenic hazard.

Carcinogenicity

Product:

Remarks: Not expected to be carcinogenic.

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

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

Reproductive toxicity

Product:

Shell Alexia S6

Version 2.0	Revision Date 24.06.2017	Print Date 25.06.2017
	: Remarks: Not expected to impair f a developmental toxicant.	ertility., Not expected to be

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 as far as possible.

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

Remarks: Slightly irritating to respiratory system.

:

12. ECOLOGICAL INFORMATION

Basis for assessment	 Ecotoxicological data have not been determined specifically for this product.
	Information given is based on a knowledge of the components and the ecotoxicology of similar products.
	Unless indicated otherwise, the data presented is
	representative of the product as a whole, rather than for
	individual component(s).(LL/EL/IL50 expressed as the
	nominal amount of product required to prepare aqueous test
	extract). Test data for additive packages has also been used in
	the classification of this product.
	Based on available data, the classification criteria are not met.

Ecotoxicity

Product:

Toxicity to fish (Acute

Version 2.0	Revision Date 24.06.2017 Print Date 25.06.2017
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:	
Biodegradability	: Remarks: Expected to be not readily biodegradable., Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.
Bioaccumulative potential	
Product:	
Bioaccumulation	: Remarks: Contains components with the potential to bioaccumulate.
Partition coefficient: n- octanol/water	: Pow: > 6Remarks: (based on information on similar products)
Mobility in soil	
Product:	
Mobility	 Remarks: Liquid under most environmental conditions., If it enters soil, it will adsorb to soil particles and will not be mobile. Remarks: Floats on water.
Other adverse effects	
no data available Product:	
Additional ecological information	 Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities., Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential. Poorly soluble mixture., May cause physical fouling of aquatic organisms. Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

Shell Alexia S6

Version 2.0	Revision Date 24.06.2017	Print Date 25.06.2017
13. DISPOSAL CONSIDERATIO	NS	
Disposal methods		
Waste from residues	: Recover or recycle if possible. It is the responsibility of the waste toxicity and physical properties of determine the proper waste classi methods in compliance with applic Do not dispose into the environme courses	the material generated to ification and disposal cable regulations.
	Waste product should not be allow ground water, or be disposed of in Waste, spills or used product is da	nto the environment.
Contaminated packaging	: Dispose in accordance with preva to a recognized collector or contra the collector or contractor should I Disposal should be in accordance national, and local laws and regula	actor. The competence of be established beforehand. with applicable regional,
Local legislation Remarks	: Disposal should be in accordance national, and local laws and regula	

14. TRANSPORT INFORMATION

International Regulations

ADR

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

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

Special precautions for user

Remarks	: Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.
Additional Information	: MARPOL Annex 1 rules apply for bulk shipments by sea.

Shell Alexia S6

Version 2.0

Revision Date 24.06.2017

15. REGULATORY INFORMATION

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 and Management (Hazardous Substances)	This product is not subject to control under this Act/ Regulation.

Regulations

Other international regulations

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

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

16. OTHER INFORMATION

Full text of H-Statements

H304 H314 H317 H318 H360 H400	May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May damage fertility or the unborn child. Very toxic to aquatic life.			
H410	Very toxic to aquatic life with long lasting effects.			
H413 May cause long lasting harmful effects to aquatic life. Full text of other abbreviations				
Aquatic Acute	Acute aquatic toxicity			
Aquatic Chronic	Chronic aquatic toxicity			
Asp. Tox.	Aspiration hazard			
Eye Dam.	Serious eye damage			
Repr.	Reproductive toxicity			
Skin Corr.	Skin corrosion			

Skin sensitisation

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -

Skin Sens.

Shell Alexia S6

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.
Sources of key data used to compile the Safety Data Sheet	:	The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).

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.

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