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Shell Tellus S2 MX 46

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SECTION 1. PRODUCT AND C	OMPANY IDENTIFICATION	
Product name	: Shell Tellus S2 MX 46	
Product code	: 001F8439	
Manufacturer or supplier' Supplier	s details : Ixom Operations Pty Ltd (NZBN – 9429041465226) 166 Totara Street, Mt Maunganui South, New Zealand	
Telephone Telefax	: +64 9 3682700 ; : +64 9 3682710	
Emergency telephone number	: 0800 734 607 (ALL HOURS)	
Recommended use of the Recommended use	chemical and restrictions on use : Hydraulic oil	

SECTION 2. HAZARDS IDENTIFICATION

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. Not classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001., Not classified as Dangerous Goods for transport, according to NZS 5433:2012 Transport of Dangerous Goods on Land.

Hazard classification

GHS Classification

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

GHS label elements

Hazard pictograms	:	No Hazard Symbol required
Signal word	: 1	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.

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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.High-pressure injection under the skin may cause serious damage including local necrosis.Not classified as flammable but will burn.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature	:	Highly refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSO- extract, 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.

Hazardous components

Chemical name	CAS-No.	Classification	Concentration [%]
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *	Not Assigned	Asp. Tox.1; H304	0 - 90

For explanation of abbreviations see section 16.

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 water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

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	casualty should be sent immediately to a hospital. Do not wait for symptoms to develop. Obtain medical attention even in the absence of apparent wounds.
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.
	Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection.
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.
Notes to physician	: Treat symptomatically.
	High pressure injection injuries require prompt surgical intervention an d possibly steroid therapy, to minimise tissue damage and loss of function. Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

SECTION 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.

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Specific extinguishing methods	:	Use extinguishing measures that are a circumstances and the surrounding er	
Special protective equipment for firefighters	:	Proper protective equipment including gloves are to be worn; chemical resist large contact with spilled product is ex Breathing Apparatus must be worn wh a confined space. Select fire fighter's relevant Standards (e.g. Europe: EN4	ant suit is indicated if pected. Self-Contained nen approaching a fire in clothing approved to

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Avoid contact with skin and eyes.
Environmental precautions	:	Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
		Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
Additional advice	:	For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

SECTION 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

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Avoidance of contact	: Strong oxidising agents.
Product Transfer	: This material has the potential to be a static accumulator. Proper grounding and bonding procedures should be used during all bulk transfer operations.
Storage	
Other data	 Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers.
	Store at ambient temperature.
Packaging material	 Suitable material: For containers or container linings, use mild steel or high density polyethylene. Unsuitable material: PVC.
Container Advice	: Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	WES-TWA (Mist)	5 mg/m3	NZ OEL
	Further informativation vapour.	ation: Sampled I	by a method that doe	s not collect
Oil mist, mineral	Not Assigned	WES-STEL (Mist)	10 mg/m3	NZ 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	New Zealand. Workplace Exposure Standards for Atmospheric Contaminant s
Oil mist, mineral	Not Assigned	(Mist)	10 mg/m3	New Zealand.

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				Workplace Exposure Standards for Atmospheric Contaminant s	
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m3	OSHA Z-1	
	Not Assigned	TWA (Inhalable fraction)	5 mg/m3	ACGIH	

Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany http://www.dguv.de/inhalt/index.jsp

L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

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
	maintenance.

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ersion 1.0	Revision Date 25.05.2016Print Date 26.05.2016Retain 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 (F PPE suppliers.	PPE) should meet recommended national standards. Check with
Respiratory protection :	No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].
Hand protection Remarks :	Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide 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.

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		Glove thickness should be typicall depending on the glove make and	, .
Eye protection	:	If material is handled such that it c protective eyewear is recommende	
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 co	ntr	ols	
General advice	:	Take appropriate measures to fulfi relevant environmental protection contamination of the environment Chapter 6. If necessary, prevent u being discharged to waste water. Is treated in a municipal or industrial before discharge to surface water. Local guidelines on emission limits must be observed for the discharg	legislation. Avoid by following advice given in undissolved material from Waste water should be waste water treatment plant s for volatile substances

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	clear
Odour	:	Slight hydrocarbon
Odour Threshold	:	Data not available
рН	:	Not applicable
pour point	:	-30 °C / -22 °FMethod: ISO 3016
Initial boiling point and boiling range	:	> 280 °C / 536 °Festimated value(s)
Flash point	:	230 °C / 446 °F 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.

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Vapour pressure	: < 0.5 Pa (20 °C / 68 °F) estimated value(s)
Relative vapour density	: > 1estimated value(s)
Relative density	: 0.856 (15 °C / 59 °F)
Density	: 856 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 on similar products)
Auto-ignition temperature	: > 320 °C / 608 °F
Viscosity	
Viscosity, dynamic	: Data not available
Viscosity, kinematic	: 46 mm2/s (40.0 °C / 104.0 °F) Method: ASTM D445
	6.9 mm2/s (100 °C / 212 °F) Method: ASTM D445
	580 mm2/s (0 °C / 32 °F) Method: ASTM D445
Explosive properties	: Not classified
Oxidizing properties	: Data not available
Conductivity Decomposition temperature	This material is not expected to be a static accumulator.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.
Possibility of hazardous	: Reacts with strong oxidising agents.

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reactions Conditions to avoid	: Extremes of temperature and direct	sunlight.
Incompatible materials	: Strong oxidising agents.	
Hazardous decomposition products	: Hazardous decomposition products during normal storage.	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.
Ac	ute toxicity		
	Product:		
	Acute oral toxicity	:	LD50 rat: > 5,000 mg/kg Remarks: Expected to be of low toxicity:
	Acute inhalation toxicity	:	Remarks: Not considered to be an inhalation hazard under normal conditions of use.
	Acute dermal toxicity	:	LD50 Rabbit: > 5,000 mg/kg Remarks: Expected to be of low toxicity:

Skin corrosion/irritation

Product:

Remarks: Expected to be slightly irritating., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Serious eye damage/eye irritation

Product:

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:

Remarks: Not expected to be a skin sensitiser.

Chronic toxicity

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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:

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

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environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

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 representative of the product as a whole, rather than for individual component(s).(LL/EL/IL50 expressed as the
Ecotoxicity	nominal amount of product required to prepare aqueous test extract).
Product:	
Taudalta ta Cala (Assula	

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

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Product:			
Bioaccumulation	: Remarks: Contains components v bioaccumulate.	Remarks: Contains components with the potential to bioaccumulate.	
Partition coefficient: n- octanol/water	: Pow: > 6Remarks: (based on info	Pow: > 6Remarks: (based on information on similar products)	
Mobility in soil			
Product:			
Mobility	•		
Other adverse effects			
no data available <u>Product:</u>			
Additional ecological information	 Product is a mixture of non-volatil expected to be released to air in a Not expected to have ozone deple photochemical ozone creation por potential. Poorly soluble mixture., May caus organisms. Mineral oil is not expected to caus aquatic organisms at concentration 	any significant quantities., etion potential, tential or global warming se physical fouling of aquatic se any chronic effects to	

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 national requirements and must be complied with.
Contaminated packaging	: Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

SECTION 14. TRANSPORT INFORMATION

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lational Regulations		
Land Transport Rule: Dangerous Goods 2012 - NZS 5433 Not regulated as a dangerou	us good	
nternational Regulation		
IATA-DGR Not regulated as a dangerou	us good	
IMDG-Code Not regulated as a dangerou	us good	
ransport in bulk according to	Annex II of MARPOL 73/78 and the IE	3C Code
Pollution category Ship type Product name Special precautions	 Not applicable Not applicable Not applicable Not applicable Not applicable 	
pecial precautions for user		
Remarks	: Special Precautions: Refer to Ch for special precautions which a us needs to comply with in connection	ser needs to be aware of or
Additional Information	: MARPOL Annex 1 rules apply for	r bulk shipments by sea.
ECTION 15. REGULATORY IN	IFORMATION mental regulations/legislation specifi	c for the substance or
mixture		
R-phrase(s)	. Not classified	

R-phrase(s)	:	Not classified.
S-phrase(s)	:	Not classified.

New Zealand Workplace Exposure Limits 2002 (WES). New Zealand Standard 5433:2012 Transport of Dangerous Goods on Land.

Other international regulations

The components of this product are reported in the following inventories:			
EINECS TSCA		All components listed or polymer exempt. All components listed.	

SECTION 16. OTHER INFORMATION

Full text of H-Statements

H304 May be fatal if swallowed and enters airways. Full text of other abbreviations

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Asp. Tox. As	piration hazard	
Abbreviations and Acronym	s : The standard abbreviations and document can be looked up in rescientific dictionaries) and/or web	eference literature (e.g.
Further information		
Other information	: A vertical bar () in the left margir from the previous version.	n indicates an amendment

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.