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SECTION	1. IDENTIFICATION			
Produ	ct name	:	Shell Tonna S2 M	1 220
Produ	ct code	:	001D7772	
Manufacturer or supplier's		deta	ails	
Manu	facturer/Supplier	:	Shell Canada Pr 400 - 4th Avenue Calgary AB T2P Canada	S.W
Telep Telefa		:	(+1) 8006611600 (+1) 4033848345	
Emerç ber	gency telephone num-	:	(US)	hr): 1 (703) 527-3887 or 1 (800) 424-9300): (+1) 613-996-6666; Toll Free: 1-888-CAN-)
	mmended use of the c nmended use	hen:	nical and restriction Machine oil.	ons on use

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

٨	800001007665
Precautionary statements	: Prevention: No precautionary phrases. Response: No precautionary phrases. Storage:
Drocoutionon (statements	Not classified as a health hazard under GHS criteria. ENVIRONMENTAL HAZARDS: Not classified as an environmental hazard under GHS criteria.
Hazard statements	 PHYSICAL HAZARDS: Not classified as a physical hazard under GHS criteria. HEALTH HAZARDS:
Signal word	: No signal word
Hazard pictograms	: No Hazard Symbol required

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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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance name	: Shell Tonna S2 M 220
Chemical nature	: Highly refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSO- extract, according to IP346.

Hazardous components

No hazardous ingredients

SECTION 4. FIRST-AID MEASURES

General advice	:	Not expected to be a health hazard when used under normal conditions.
If inhaled	:	No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
In case of skin contact	:	Remove contaminated clothing. Flush exposed area with wa- ter and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
In case of eye contact	:	Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
If swallowed	:	In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
Most important symptoms and effects, both acute and delayed	:	Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.
Protection of first-aiders	:	When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
Notes to physician	:	Treat symptomatically.

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SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Foam, water spray or fog. Dry chemical powder, carbon diox- ide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	:	Do not use water in a jet.
Specific hazards during fire- fighting	:	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 meth- ods	:	Use extinguishing measures that are appropriate to local cir- cumstances 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).

SECTION 6. ACCIDENTAL RELEASE MEASURES

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

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

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type	Control parame-	Basis
		(Form of	ters / Permissible	
		exposure)	concentration	
Oil mist, mineral	Not Assigned	TWA ((inhal-	5 mg/m3	US. ACGIH
	_	able frac-	-	Threshold
		tion))		Limit Values
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhal-	5 mg/m3	ACGIH

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			able fraction)		
Biolo	gical occupational	exposure limits			
No bio	ological limit allocated	d.			
Monit	toring Methods				
workp trols. Valida	place may be required For some substances	d to confirm compliance s biological monitoring irement methods shoul	he breathing zone of wo with an OEL and adequ may also be appropriate d be applied by a compe	uacy of exposure con-	

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.

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Pers	onal protective equi	oment	
Resp	iratory protection	conditions of u In accordance tions should be If engineering tions to a level select respirate cific conditions Check with res Where air-filte priate combina Select a filter s	protection is ordinarily required under normal use. with good industrial hygiene practices, precau- e taken to avoid breathing of material. controls do not maintain airborne concentra- l which is adequate to protect worker health, ory protection equipment suitable for the spe- s of use and meeting relevant legislation. spiratory protective equipment suppliers. ring respirators are suitable, select an appro- ation of mask and filter. suitable for the combination of organic gases (Type A/Type P boiling point >65°C (149°F)].
	l protection	· Mhara hard -	ontool with the product may eccurate use of
Re	emarks	gloves approve US: F739) main suitable chemin gloves Suitabil usage, e.g. free sistance of glo glove suppliers Personal hygie Gloves must of gloves, hands cation of a nor For continuous through time of 480 minutes we short-term/splat recognize that may not be ave time maybe act and replacement a good predict dependent on Glove thickness	ontact with the product may occur the use of ed to relevant standards (e.g. Europe: EN374, de from the following materials may provide ical protection. PVC, neoprene or nitrile rubber lity and durability of a glove is dependent on equency and duration of contact, chemical re- ove material, dexterity. Always seek advice from s. Contaminated gloves should be replaced. ene is a key element of effective hand care. only be worn on clean hands. After using should be washed and dried thoroughly. Appli- n-perfumed moisturizer is recommended. s contact we recommend gloves with break- of more than 240 minutes with preference for > /here suitable gloves can be identified. For ash protection we recommend the same, but suitable gloves offering this level of protection ailable and in this case a lower breakthrough cceptable so long as appropriate maintenance ent regimes are followed. Glove thickness is not for of glove resistance to a chemical as it is the exact composition of the glove material. ss should be typically greater than 0.35 mm the glove make and model.
Еуе р	protection		andled such that it could be splashed into eyes, wear is recommended.
Skin	and body protection	work clothes.	n is not ordinarily required beyond standard tice to wear chemical resistant gloves.
Ther	mal hazards	: Not applicable	
Prote	ective measures		ective equipment (PPE) should meet recom- nal standards. Check with PPE suppliers. 800001007665

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Environmental exposure controls

necessary, prevent undisso charged to waste water. W municipal or industrial wast discharge to surface water. Local guidelines on emissio	wing advice given in Chapter 6. If olved material from being dis- /aste water should be treated in a te water treatment plant before
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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid at room temperature.	
Colour	: light brown	
Odour	: Slight hydrocarbon	
Odour Threshold	: Data not available	
рН	: Not applicable	
pour point	: -15 °C / 5 °F Method: ISO 3016	
Initial boiling point and boiling range	: > 280 °C / 536 °F estimated value(s)	
Flash point	: 250 °C / 482 °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 pressure	: < 0.5 Pa (20 °C / 68 °F) estimated value(s)	
Relative vapour density	: > 1 estimated value(s)	
Relative density	: 0.894 (15 °C / 59 °F)	
111		nnn

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De	nsity	: 894 kg/m3 (15.0	°C / 59.0 °F)Method: ISO 12185	
	lubility(ies) Water solubility	: negligible		
	Solubility in other solvents	: Data not available	e	
-	rtition coefficient: n- anol/water	: Pow: > 6 (based on information on similar products)		
Au	to-ignition temperature	: > 320 °C / 608 °F		
,	cosity Viscosity, dynamic	: Data not availabl		
,	Viscosity, kinematic	: 220 mm2/s (40.0 Method: ISO 310		
		19.1 mm2/s (100 °C / 212 °F) Method: ISO 3104		
Ex	plosive properties	: Not classified		
Ox	idizing properties	: Data not availabl	e	
Со	nductivity	: This material is not expected to be a static accumulator.		
De	composition temperature	: Data not available		

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	:	Stable.
Possibility of hazardous reac- tions	:	Reacts with strong oxidising agents.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Strong oxidising agents.
Hazardous decomposition products	:	Hazardous decomposition products are not expected to form during normal storage.

SECTION 11. TOXICOLOGICAL INFORMATION

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Basis	for assessment	the to the d	oxicology of ata presente	is based on data on the components and similar products.Unless indicated otherwise, ed is representative of the product as a n for individual component(s).
Skin	mation on likely routes and eye contact are the ental ingestion.	•		sure although exposure may occur following
Acut	e toxicity			
Prod Acute	<u>uct:</u> e oral toxicity) (rat): > 5,00 arks: Expect	00 mg/kg ed to be of low toxicity:
Acute	e inhalation toxicity		arks: Not cor al conditions	nsidered to be an inhalation hazard under s of use.
Acute	e dermal toxicity		```	5,000 mg/kg ed to be of low toxicity:

Skin corrosion/irritation

Product:

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

Serious eye damage/eye irritation

Product:

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:

Remarks: Not expected to be a skin sensitiser.

Germ cell mutagenicity

Product:

Genotoxicity in vivo

: 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.

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:

Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Reproductive toxicity

Product:

Effects on fertility

Remarks: Not expected to impair fertility. Not expected to be a developmental toxicant.

STOT - single exposure

Product:

Remarks: Not expected to be a hazard.

STOT - repeated exposure

Product:

Remarks: Not expected to be a hazard.

Aspiration toxicity

Product:

Not considered an aspiration hazard.

Further information

Product:

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal.

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

Remarks: Slightly irritating to respiratory system.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment	 Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representa- tive of the product as a whole, rather than for individual com- ponent(s).(LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).
Ecotoxicity	

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Toxic ty)	city to fish (Acute toxici-	:	Remarks: Expect LL/EL/IL50 > 100	ed to be practically non toxic: mg/l	
Toxic toxic	city to crustacean (Acute ity)	:	Remarks: Expect LL/EL/IL50 > 100	ed to be practically non toxic: mg/l	
	city to algae/aquatic s (Acute toxicity)	:	: Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l		
Toxic icity)	city to fish (Chronic tox-	:	Remarks: Data no	ot available	
	city to crustacean	:	Remarks: Data no	ot available	
Ťoxio	onic toxicity) city to microorganisms te toxicity)	:	Remarks: Data not available		
Pers	istence and degradabil	ity			
<u>Prod</u> Biode	l <u>uct:</u> egradability	:	: Remarks: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegrada- ble, but contains components that may persist in the environ- ment.		
Bioa	ccumulative potential				
Prod	luct:				
Bioa	ccumulation	:	Remarks: Contair cumulate.	ns components with the potential to bioac-	
	tion coefficient: n- nol/water	:	: Pow: > 6 Remarks: (based on information on similar products)		
Mob	ility in soil				
<u>Prod</u> Mobi		:		under most environmental conditions. will adsorb to soil particles and will not be	
			Remarks: Floats	on water.	
Othe	er adverse effects				
Prod	luct:				
Addi matio	tional ecological infor-	:	expected to be re	ure of non-volatile components, which are not leased to air in any significant quantities. have ozone depletion potential, photochemi-	
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		Poorly soluble m May cause physi Mineral oil is not	in potential or global warming potential. ixture. cal fouling of aquatic organisms. expected to cause any chronic effects to as at concentrations less than 1 mg/l.
SECTION 1	13. DISPOSAL CONSI	DERATIONS	
Dispo	sal methods		
Waste	from residues	ground water, or	nould not be allowed to contaminate soil or be disposed of into the environment. used product is dangerous waste.
		national, and loca Local regulations	be in accordance with applicable regional, al laws and regulations. may be more stringent than regional or na- nts and must be complied with.

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

SECTION 14. TRANSPORT INFORMATION

National Regulations

TDG

Not regulated as a dangerous good

International Regulation

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.

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Additional Information

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

SECTION 15. REGULATORY INFORMATION

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

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

The components of this product are reported in the following inventories:				
EINECS	: All components listed or polymer exempt.			
TSCA	: All components listed.			
DSL	: Not all components listed.			

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

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 -Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; 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; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on

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the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

A vertical bar (|) in the left margin indicates an amendment from the previous version. Revision Date : 2016-05-24

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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