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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name	:	Shell Spirax S3 AX 85W-140
Product code	:	001D8282

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture	Transmission oil.
Uses advised against	This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the supplier.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier :	Shell UK Oil Products Limited Shell Centre London SE1 7NA United Kingdom
Telephone : Telefax :	(+44) 08007318888
Email Contact for Safety Data : Sheet	If you have any enquiries about the content of this SDS please email lubricantSDS@shell.com
1.4 Emergency telephone number	er

: +44-(0) 151-350-4595

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)		
Hazard pictograms	No Hazard Symbol required	
Signal word	No signal word	
Hazard statements	PHYSICAL HAZARDS: Not classified as a physica according to CLP criteria.	l hazard

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	H412	HEALTH HAZARDS: Not classified as a he criteria. ENVIRONMENTAL H Harmful to aquatic life effects.	ealth hazard under CLP HAZARDS:
Precautionary statements	: Prevention: P273 Response:	Avoid release to the	environment.
	•	No precautionary phr	ases.
	Storage:	No precautionary phr	ases.
	Disposal: P501	Dispose of contents/ approved waste disp	

2.3 Other hazards

This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.

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

3.2 Mixtures

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 (REACH registration numbers): 64742-53-6 (01-2119480375-34), 64742-54-7 (01-2119484627-25), 64742-55-8 (01-2119487077-29), 64742-56-9 (01-2119480132-48), 64742-65-0 (01-2119471299-27), 68037-01-4 (01-2119486452-34), 72623-86-0 (01-2119474878-16), 72623-87-1 (01-2119474889-13), 8042-47-5 (01-2119487078-27), 848301-69-9 (01-0000020163-82).

Hazardous components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.	(REGULATION	[%]
	Registration	(EC) No	
	number	1272/2008)	
Alkyl dithiophosphate	255881-94-8	Eye Irrit.2; H319	0.25 - 0.9
	401-850-9	Aquatic Acute1;	

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Alkenyl amine	112-90-3 204-015-5	H400 Aquatic Chronic1; H410 Acute Tox.4; H302 Asp. Tox.1; H304 Skin Corr.1B; H314 STOT SE3; H335 STOT RE2; H373 Aquatic Acute1; H400 Aquatic Chronic1; H410	0.25 - 0.9
Alkyl amine	111-86-4 203-916-0	Acute Tox.3; H301 Acute Tox.3; H311 Skin Corr.1; H314 Eye Dam.1; H318 Acute Tox.4; H332 STOT SE3; H335 Aquatic Acute1; H400 Flam. Liq.3; H226 Aquatic Chronic2; H411	0.1 - 0.9
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *		Asp. Tox.1; H304	0 - 90

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	: Not expected to be a health hazard when used under normal conditions.
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.
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.
In case of eye contact	 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.
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If swallowed	: In general no treatment is necessary are swallowed, however, get medical	•
	oms and effects, both acute and delayed	
Symptoms	 Oil acne/folliculitis signs and symptor of black pustules and spots on the sk Ingestion may result in nausea, vomi 	in of exposed areas.
4.3 Indication of any imm	ediate medical attention and special treatmen	t needed
Treatment	: Notes to doctor/physician: Treat symptomatically.	

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Unsuitable extinguishing	 Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not use water in a jet. 	
media 5.2 Special hazards arising from	the substance or mixture	
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.	
5.3 Advice for firefighters		
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 a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).	
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	: 6.1.1 For non emergency personnel: Avoid contact with skin and eyes.
	6.1.2 For emergency responders: Avoid contact with skin and eyes.

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6.2 Environmental precautions

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.

6.3 Methods and materials for containment and cleaning up

Methods for 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 property
		suitable material and dispose of properly.

6.4 Reference to other sections

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.
7.1 Precautions for safe handling	
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.
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.
7.2 Conditions for safe storage, in	cluding any incompatibilities
Other data	· Keep container tightly closed and in a cool, well-ventilated

	place. Use properly labeled and closable containers.	
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		Store at ambient temperature.	
		Refer to section 15 for any additional sp covering the packaging and storage of	
		The storage of this product may be sub Pollution (Oil Storage) (England) Regul guidance may be obtained from the loc agency office.	ations. Further
Packaging material	:	Suitable material: For containers or con steel or high density polyethylene. Unsuitable material: PVC.	itainer linings, use mild
Container Advice	:	Polyethylene containers should not be temperatures because of possible risk of	
7.3 Specific end use(s) Specific use(s)	:	Not applicable	

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Oil mist, mineral		TWA	5 mg/m3	US. ACGIH Threshold Limit Values

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

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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

8.2 Exposure controls

Engineering measuresThe 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

The provided information is made in consideration of the PPE directive (Council Directive 89/686/EEC) and the CEN European Committee for Standardisation (CEN) standards.

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

Eye protection :	If material is handled such that it could be splashed into eyes, protective eyewear is recommended. Approved to EU Standard EN166.
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

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	gloves, hands should be washed and Application of a non-perfumed moist	
	For continuous contact we recomme breakthrough time of more than 240 for > 480 minutes where suitable glov short-term/splash protection we reco recognize that suitable gloves offerin may not be available and in this case time maybe acceptable so long as ap and replacement regimes are followe a good predictor of glove resistance of dependent on the exact composition Glove thickness should be typically g depending on the glove make and m	minutes with preference ves can be identified. For mmend the same, but g this level of protection e a lower breakthrough opropriate maintenance ed. Glove thickness is not to a chemical as it is of the glove material. greater than 0.35 mm
Skin and body protection	 Skin protection is not ordinarily requi work clothes. It is good practice to wear chemical r 	-
Respiratory protection	 No respiratory protection is ordinarily conditions of use. In accordance with good industrial hy precautions should be taken to avoid If engineering controls do not mainta concentrations to a level which is add health, select respiratory protection e specific conditions of use and meetin Check with respiratory protective equ Where air-filtering respirators are sui appropriate combination of mask and Select a filter suitable for combined p and vapours [Type A/Type P boiling meeting EN14387 and EN143. 	/giene practices, breathing of material. in airborne equate to protect worker equipment suitable for the g relevant legislation. upment suppliers. table, select an d filter. particulate/organic gases
Thermal hazards	: Not applicable	
Hygiene measures	: Exposure to this product should be re reasonably practicable. Reference sh Health and Safety Executive's public Essentials".	hould be made to the
Environmental exposure c	ontrols	
General advice	: Take appropriate measures to fulfill t relevant environmental protection leg contamination of the environment by Chapter 6. If necessary, prevent uno being discharged to waste water. Wa	jislation. Avoid following advice given in dissolved material from

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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 vapour.

SECTION 9: Physical and chemical properties

Appearance		Liquid at room temperature.
Colour		amber
Odour		Slight hydrocarbon
Odour Threshold		Data not available
pH		Not applicable
pour point		-15 °CMethod: ISO 3016
Initial boiling point and boiling range	:	> 280 °Cestimated value(s)
Flash point	:	225 °C 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) estimated value(s)
Relative vapour density	:	> 1estimated value(s)
Relative density		0.910 (15 °C)
Density	:	910 kg/m3 (15.0 °C) Method: ISO 12185
Solubility(ies)		
Water solubility	:	negligible
Solubility in other solvents	:	Data not available
Partition coefficient: n-	:	Pow: > 6(based on information on similar products)

9.1 Information on basic physical and chemical properties

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octanol/water		
Auto-ignition temperature	: > 320 °C	
Viscosity		
Viscosity, dynamic	: Data not available	
Viscosity, kinematic	: 435 mm2/s (40.0 °C) Method: ISO 3104	
	29.6 mm2/s (100 °C) Method: ISO 3104	
Explosive properties	: Not classified	
Oxidizing properties	: Data not available	
9.2 Other information		

Conductivity	: This material is not expected to be a static accumulator.
Decomposition temperature	: Data not available

SECTION 10: Stability and reactivity

10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

10.2 Chemical stability

Stable.

No hazardous reaction is expected when handled and stored according to provisions

10.3 Possibility of hazardous reactions

Hazardous reactions	: Reacts with strong oxidising agents.			
10.4 Conditions to avoid				
Conditions to avoid	: Extremes of temperature and direct sunlight.			
10.5 Incompatible materials				
Materials to avoid	: Strong oxidising agents.			
10.6 Hazardous decomposition products				
Hazardous decomposition products	: Hazardous decomposition products are not expected to form during normal storage.			

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Basis for assessment	:	Information given is based on data on the components and the toxicology of similar products.Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).		
Information on likely routes of exposure	:	Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.		
Acute toxicity				
Product:				
Acute oral toxicity	:	LD50 rat: > 5,000 mg/kg Remarks: Expected to be of low toxicity:		
Acute inhalation toxicity	:	Remarks: Not considered to be an inhalation hazard under normal conditions of use.		
Acute dermal toxicity	:	LD50 Rabbit: > 5,000 mg/kg Remarks: Expected to be of low toxicity:		

Skin corrosion/irritation

Product:

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

Serious eye damage/eye irritation

Product:

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:

Remarks: For respiratory and skin sensitisation:, Not expected to be a sensitiser.

Germ cell mutagenicity

Product:

: Remarks: Not considered a mutagenic hazard.

Carcinogenicity

Product:

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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 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.

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Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

Summary on evaluation of th Germ cell mutagenicity- Assessment	 CMR properties This product does not meet the criteria for classification in categories 1A/1B.
Carcinogenicity - Assessment	: This product does not meet the criteria for classification in categories 1A/1B.
Reproductive toxicity - Assessment	: This product does not meet the criteria for classification in categories 1A/1B.

SECTION 12: Ecological information

12.1 Toxicity

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.
Product:		
Toxicity to fish (Acute toxicity)	:	Remarks: Expected to be harmful: LL/EL/IL50 10-100 mg/l
Toxicity to crustacean (Acute toxicity)	:	Remarks: Expected to be harmful: LL/EL/IL50 10-100 mg/l
Toxicity to algae/aquatic plants (Acute toxicity)	:	Remarks: Expected to be harmful: LL/EL/IL50 10-100 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

<u>Components:</u> Alkyl dithiophosphate :

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M-Factor (Acute aquatic toxicity) Alkenyl amine :	:	1	
M-Factor (Acute aquatic toxicity)		10	
M-Factor (Chronic aquatic toxicity)	:	10	
12.2 Persistence and degradabil	lity		
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.	
12.3 Bioaccumulative potential			
Product:			
Bioaccumulation	:	Remarks: Contains components with t bioaccumulate.	he potential to
Partition coefficient: n- octanol/water	:	Pow: > 6Remarks: (based on informat	ion on similar products)
12.4 Mobility in soil			
Product:			
Mobility	:	Remarks: Liquid under most environm enters soil, it will adsorb to soil particle mobile. Remarks: Floats on water.	
12.5 Results of PBT and vPvB as	sse	ssment	
Product:			
Assessment	:	This mixture does not contain any REA substances that are assessed to be a	
12.6 Other adverse effects			
Product:			
Additional ecological information	:	Product is a mixture of non-volatile con expected to be released to air in any s Not expected to have ozone depletion photochemical ozone creation potential potential. Poorly soluble mixture., May cause phorganisms. Mineral oil is not expected to cause an aquatic organisms at concentrations le	ignificant quantities., potential, al or global warming ysical fouling of aquatic ny chronic effects to

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SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Product	 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. Do not dispose into the environment, in drains or in water courses
	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.
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.
Local legislation Waste catalogue	: EU Waste Disposal Code (EWC):
Waste Code	:
	13 02 05*
Remarks	: Disposal should be in accordance with applicable regional, national, and local laws and regulations.
	Classification of waste is always the responsibility of the end user.
	Hazardous Waste (England and Wales) Regulations 2005.

SECTION 14: Transport information

14.1 UN number		
ADR RID	Not regulated as a dangerous goodNot regulated as a dangerous good	

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IMDG	: Not regulated as a dangerous good	
IATA	: Not regulated as a dangerous good	
	. Not regulated as a daligerous good	
14.2 Proper shipping name		
ADR	: Not regulated as a dangerous good	
RID	: Not regulated as a dangerous good	
	: Not regulated as a dangerous good	
	: Not regulated as a dangerous good	
14.3 Transport hazard class		
ADR	: Not regulated as a dangerous good	
RID	: Not regulated as a dangerous good	
IMDG	: Not regulated as a dangerous good	
ΙΑΤΑ	: Not regulated as a dangerous good	
14.4 Packing group		
ADR	: Not regulated as a dangerous good	
RID	: Not regulated as a dangerous good	
IMDG	: Not regulated as a dangerous good	
ΙΑΤΑ	: Not regulated as a dangerous good	
14.5 Environmental hazards		
ADR	: Not regulated as a dangerous good	
RID	: Not regulated as a dangerous good	
IMDG	: Not regulated as a dangerous good	
14.6 Special precautions for us	ser	
Remarks	: Special Precautions: Refer to Chapter	7. Handling & Storage.
	for special precautions which a user new	
	needs to comply with in connection with	
14.7 Transport in bulk accordi	ng to Annex II of MARPOL 73/78 and the IB	Code
•	-	
Pollution category Ship type	: Not applicable : Not applicable	
Product name	: Not applicable	
Special precautions	: Not applicable	
opeoial predations		
Additional Information	: MARPOL Annex 1 rules apply for bulk	shipments by sea.
		-

SECTION 15: Regulatory information

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

REACH - List of substances s (Annex XIV)	ubject to authorisation	: Product is not subject to Authorisation under REACH.
Volatile organic compounds	: 0 %	
Other regulations	Safety at Work etc. A	ction Act 1990 (as amended). Health and .ct 1974. Consumers Protection Act 1987. and Control Act 1999. Environment Act
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	1995. Factories Act 1961. The Carri and Use of Transportable Pressure Regulations 2011. Chemicals (Haza Packaging for Supply) Regulations 2 Substances Hazardous to Health Re amended). Merchant Shipping (Dan Pollutants) Regulations 1997. Repo and Dangerous Occurrences Regul Personal Protective Equipment Reg Protective Equipment at Work Regul Waste (England and Wales) Regula Control of Major Accident Hazards F amended). Renewable Transport Fu (as amended). Energy Act 2011. Er (England and Wales) Regulations 2 (England and Wales) Regulations 2 Planning (Hazardous Substances) A regulations. The Environmental Pro-	Equipment (Amendment) ard Information and 2009. Control of egulations 2002 (as gerous Goods and Marine rting of Injuries, Diseases ations 1995 (as amended). Julations 2002. Personal ulations 1992. Hazardous ations 2005(as amended). Regulations 1999 (as uel Obligations Order 2007 twironmental Permitting 010 (as amended). Waste 011 (as amended). Act 1990 and associated tection (Controls on

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

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

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

REGULATION (EC) No 1272/2008

Classification procedure:

Chronic aquatic toxicity, Category 3, H412

Expert judgement and weight of evidence determination.

Full text of H-Statements

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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Full text of other abbreviations

Acute Tox. Acute toxicity Acute aquatic toxicity Aquatic Acute Aquatic Chronic Chronic aquatic toxicity Asp. Tox. Aspiration hazard Eye Dam. Serious eye damage Eye irritation Eye Irrit. Flam. Liq. Flammable liquids Skin Corr. Skin corrosion STOT RE Specific target organ toxicity - repeated exposure STOT SE Specific target organ toxicity - single exposure : The standard abbreviations and acronyms used in this Abbreviations and Acronyms document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites. ACGIH = American Conference of Governmental Industrial **Hygienists** ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road AICS = Australian Inventory of Chemical Substances ASTM = American Society for Testing and Materials BEL = Biological exposure limits BTEX = Benzene, Toluene, Ethylbenzene, Xvlenes CAS = Chemical Abstracts Service CEFIC = European Chemical Industry Council CLP = Classification Packaging and Labelling COC = Cleveland Open-Cup DIN = Deutsches Institut fur Normung DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level DSL = Canada Domestic Substance List EC = European Commission EC50 = Effective Concentration fifty ECETOC = European Center on Ecotoxicology and **Toxicology Of Chemicals** ECHA = European Chemicals Agency EINECS = The European Inventory of Existing Commercial **Chemical Substances** EL50 = Effective Loading fifty ENCS = Japanese Existing and New Chemical Substances Inventory EWC = European Waste Code GHS = Globally Harmonised System of Classification and Labelling of Chemicals IARC = International Agency for Research on Cancer IATA = International Air Transport Association IC50 = Inhibitory Concentration fifty IL50 = Inhibitory Level fifty IMDG = International Maritime Dangerous Goods INV = Chinese Chemicals Inventory IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables KECI = Korea Existing Chemicals Inventory

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Version 4.3	Revision Date 28.06.2017	Print Date 29.06.2017
	LC50 = Lethal Concentration fifty LD50 = Lethal Dose fifty per cent. LL/EL/IL = Lethal Loading/Effective LL50 = Lethal Loading fifty MARPOL = International Convention Pollution From Ships NOEC/NOEL = No Observed Effect Observed Effect Level OE_HPV = Occupational Exposure PBT = Persistent, Bioaccumulative a PICCS = Philippine Inventory of Che Substances PNEC = Predicted No Effect Concer REACH = Registration Evaluation A Chemicals RID = Regulations Relating to Interr Dangerous Goods by Rail SKIN_DES = Skin Designation STEL = Short term exposure limit TRA = Targeted Risk Assessment TSCA = US Toxic Substances Cont TWA = Time-Weighted Average vPvB = very Persistent and very Bio	n for the Prevention of Concentration / No - High Production Volume and Toxic emicals and Chemical ntration and Authorisation Of hational Carriage of
Further information		
Training advice	: Provide adequate information, instru operators.	uction and training for
Other information	: A vertical bar () in the left margin in from the previous version.	dicates an amendment
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).	

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.