Version 1.3

Revision Date 06.11.2018

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

1.1 Product identifier

Trade name	:	Helix Ultra 5W-30
Product code	:	001A9012

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

Use of the Substance/Mixture	: Engine 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	: Société des Pétroles Shell Tour Pacific 11/13 cours Valmy - La Défense 7 F-92977 PARIS LA DEFENSE
Telephone Telefax Email Contact for Safety Data Sheet	 (+33) 0969366018 (+33) 0969366030 If you have any enquiries about the content of this SDS please email lubricantSDS@shell.com

1.4 Emergency telephone number

: Shell (en France 24/24h): 0800 33 86 86 (+33 4 82 90 75 50) ORFILA (INRS): + 33 (0)1 45 42 59 59

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Based on available data this substance / mixture does not meet the classification criteria.

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 physical hazard according to CLP criteria.

SAFETY DATA SHEET Regulation 1907/2006/EC Helix Ultra 5W-30 Version 1.3 Revision Date 06.11.2018 Print Date 05.07.2019 **HEALTH HAZARDS:** Not classified as a health hazard under CLP criteria. **ENVIRONMENTAL HAZARDS:** Not classified as environmental hazard according to CLP criteria. Precautionary statements : Prevention: No precautionary phrases. **Response:** No precautionary phrases. Storage: No precautionary phrases. **Disposal:** No precautionary phrases.

Safety data sheet available on request.

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 : Synthetic base oil and additives. Highly refined mineral oil. The highly refined mineral oil contains <3% (w/w) DMSOextract, according to IP346. The highly refined mineral oil is only present as additive diluent.

Hazardous components

Chemical name	CAS-No. EC-No.	Classification (REGULATION	Concentration [%]
	Registration	(EC) No 1272/2008)	[,-]
Zinc dialkyldithiophosphate	28629-66-5 249-109-7	Skin Irrit.2; H315 Eye Dam.1; H318 Aquatic Chronic2; H411	< 2,49
Alkaryl amine	36878-20-3 253-249-4 01-2119488911-28	Aquatic Chronic4; H413	1 - 3

Version 1.3

Revision Date 06.11.2018

Print Date 05.07.2019

Distillates (Fischer - Tropsch), heavy, C18- 50 – branched, cyclic and linear	Asp. Tox.1; H304	40 - 90

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid meas	sures
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.
If swallowed	: In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
4.2 Most important symptoms a	ind effects, both acute and delayed
Symptoms	: 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.
4.3 Indication of any immediate	medical attention and special treatment needed
Treatment	: Notes to doctor/physician: Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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.

SAFETY DATA SHEET Regulation 1907/2006/EC

Helix Ultra 5W-30		
Version 1.3	Revision Date 06.11.2018	Print Date 05.07.2019
5.2 Special hazards arising from	the substance or mixture	
Specific hazards during firefighting	: Hazardous combustion products may mixture of airborne solid and liquid p (smoke). Carbon monoxide may be combustion occurs. Unidentified orga compounds.	articulates and gases evolved if incomplete
5.3 Advice for firefighters		
Special protective equipment for firefighters	 Proper protective equipment including gloves are to be worn; chemical resignation large contact with spilled product is end Breathing Apparatus must be worn was a confined space. Select fire fighter's relevant Standards (e.g. Europe: ENd) 	stant suit is indicated if expected. Self-Contained when approaching a fire in s clothing approved to
Specific extinguishing methods	: Use extinguishing measures that are circumstances and the surrounding e	appropriate to local

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.

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 properly.
-------------------------	---

6.4 Reference to other sections

Version 1.3	Revision Date 06.11.2018	Print Date 05.07.2019
	f personal protective equipment see Chapte spilled material see Chapter 13 of this Safe	
SECTION 7: Handling and st	torage	
General Precautions	: Use local exhaust ventilation if there vapours, mists or aerosols. Use the information in this data shee assessment of local circumstances t appropriate controls for safe handlin this material.	et as input to a risk o help determine
7.1 Precautions for safe handling	ng	
Advice on safe handling	 Avoid prolonged or repeated contact Avoid inhaling vapour and/or mists. When handling product in drums, sa worn and proper handling equipmen Properly dispose of any contaminate materials in order to prevent fires. 	fety footwear should be t should be used.
Product Transfer	: Proper grounding and bonding proce during all bulk transfer operations to	
7.2 Conditions for safe storage	e, including any incompatibilities	
Other data	: Keep container tightly closed and in place. Use properly labeled and clos	
	Store at ambient temperature.	
	Refer to section 15 for any additiona covering the packaging and storage	
Packaging material	: Suitable material: For containers or or steel or high density polyethylene. Unsuitable material: PVC.	container linings, use mild
Container Advice	: Polyethylene containers should not to temperatures because of possible rise	
7.3 Specific end use(s)		
Specific use(s)	: Not applicable	

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Version 1.3

Revision Date 06.11.2018

Print Date 05.07.2019

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 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 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

The provided information is made in consideration of the PPE directive (Council Directive

ersion 1.3	Revision Date 06.11.2018	Print Date 05.07.2019
89/686/EEC) and the CEN	European Committee for Standardisation (CEN) standards.
Personal protective equipm PPE suppliers.	ent (PPE) should meet recommended nati	onal standards. Check with
Eye protection	: If material is handled such that it co protective eyewear is recommended Approved to EU Standard EN166.	
Hand protection		
Remarks	: Where hand contact with the product gloves approved to relevant standar US: F739) made from the following suitable chemical protection. PVC, of gloves Suitability and durability of a usage, e.g. frequency and duration resistance of glove material, dexter from glove suppliers. Contaminated replaced. Personal hygiene is a key care. Gloves must only be worn on gloves, hands should be washed ar Application of a non-perfumed mois	rds (e.g. Europe: EN374, materials may provide neoprene or nitrile rubber glove is dependent on of contact, chemical ity. Always seek advice I gloves should be v element of effective hand clean hands. After using nd dried thoroughly.
	For continuous contact we recommon breakthrough time of more than 240 for > 480 minutes where suitable glu short-term/splash protection we rec recognize that suitable gloves offerin may not be available and in this cas time maybe acceptable so long as a and replacement regimes are follow a good predictor of glove resistance dependent on the exact composition Glove thickness should be typically depending on the glove make and r	D minutes with preference oves can be identified. For ommend the same, but ing this level of protection se a lower breakthrough appropriate maintenance ved. Glove thickness is not to a chemical as it is n of the glove material. greater than 0.35 mm
Skin and body protection	: Skin protection is not ordinarily requestion work clothes. It is good practice to wear chemical	
Respiratory protection	 No respiratory protection is ordinaril conditions of use. In accordance with good industrial h precautions should be taken to avoid lf engineering controls do not maint concentrations to a level which is act health, select respiratory protection specific conditions of use and meet Check with respiratory protective explanation 	nygiene practices, id breathing of material. ain airborne dequate to protect worker equipment suitable for the ing relevant legislation.

_

Revision Date 06.11.2018	Print Date 05.07.2019
Where air-filtering respirators are su appropriate combination of mask an Select a filter suitable for combined and vapours [Type A/Type P boiling meeting EN14387 and EN143.	nd filter. particulate/organic gases
: Not applicable	
	Where air-filtering respirators are su appropriate combination of mask an Select a filter suitable for combined and vapours [Type A/Type P boiling meeting EN14387 and EN143.

Environmental exposure controls

Chapter 6. being discha treated in a before disch Local guidel	on of the environment by following advice given in If necessary, prevent undissolved material from arged to waste water. Waste water should be municipal or industrial waste water treatment plant arge to surface water. ines on emission limits for volatile substances erved for the discharge of exhaust air containing
--	---

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: amber
Odour	: Slight hydrocarbon
Odour Threshold	: Data not available
рН	: Not applicable
pour point	: -48 °CMethod: ASTM D97
Initial boiling point and boiling range	: > 280 °Cestimated value(s)
Flash point	: 244 °C Method: ASTM D92 (COC)
Evaporation rate	: Data not available
Flammability (solid, gas)	: Data not available
Upper explosion limit	: Typical 10 %(V)
Lower explosion limit	: Typical 1 %(V)

Helix Ultra 5W-30			
Version 1.3		Revision Date 06.11.2018	Print Date 05.07.2019
Vapour pressure	:	< 0,5 Pa (20 °C) estimated value(s)	
Relative vapour density	:	> 1estimated value(s)	
Relative density	:	0,8413 (15,0 °C)	
Density	:	841,3 kg/m3 (15,0 °C) Method: ASTM D4052	
Solubility(ies)			
Water solubility	:	negligible	
Solubility in other solvents	:	Data not available	
Partition coefficient: n- octanol/water	:	log Pow: > 6(based on information on	similar products)
Auto-ignition temperature	:	> 320 °C	
Decomposition temperature	:	Data not available	
Viscosity			
Viscosity, dynamic	:	Data not available	
Viscosity, kinematic	:	71,69 mm2/s (40,0 °C) Method: ASTM D445	
		11,93 mm2/s (100 °C) Method: ASTM D445	
Explosive properties	:	Not classified	
Oxidizing properties	:	Data not available	
9.2 Other information			
Conductivity	:	This material is not expected to be a s	tatic accumulator.

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

Version 1.3	Revision Date 06.11.2018	Print Date 05.07.2019
Stable. No hazardous reaction is exp	pected when handled and stored according	to provisions
10.3 Possibility of hazardous re	eactions	
Hazardous reactions	: Reacts with strong oxidising agents.	
10.4 Conditions to avoid		
Conditions to avoid	: Extremes of temperature and direct set	unlight.
10.5 Incompatible materials		
Materials to avoid	: Strong oxidising agents.	
10.6 Hazardous decomposition	products	
Hazardous decomposition products	: No decomposition if stored and applie	ed as directed.

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: Low toxicity: Based on available data, the classification criteria are not met.
Acute inhalation toxicity	:	Remarks: Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	LD50 Rabbit: > 5.000 mg/kg Remarks: Low toxicity: Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Product:

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

Revision Date 06.11.2018

available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product:

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

Components:

Zinc dialkyldithiophosphate:

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

Respiratory or skin sensitisation

Product:

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

Germ cell mutagenicity

Product:

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

Carcinogenicity

Product:

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

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

Reproductive toxicity

Product:

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

STOT - single exposure

Product:

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

STOT - repeated exposure

Product:

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

Aspiration toxicity

Product:

Not an aspiration hazard.

Further information

Product:

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

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

Remarks: Slightly irritating to respiratory system.

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

Summary on evaluation of the CMR properties

Germ cell mutagenicity- Assessment	:	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.

ersion 1.3		Revision Date 06.11.2018	Print Date 05.07.2019
Product:		Unless indicated otherwise, the data representative of the product as a windividual component(s).(LL/EL/IL50 nominal amount of product required extract).	hole, rather than for expressed as the
Toxicity to fish (Acute toxicity)	:	Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the classific	cation criteria are not met.
Toxicity to crustacean (Acute toxicity)	:	Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the classifie	cation criteria are not met.
Toxicity to algae/aquatic plants (Acute toxicity)	:	Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the classific	cation criteria are not met.
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	

12.2 Persistence and degradability

Product:

Biodegradability	:	Remarks: Not readily biodegradable., Major constituents are
		inherently biodegradable, but contains components that may
		persist in the environment.

12.3 Bioaccumulative potential

Product:	
Bioaccumulation	: Remarks: Contains components with the potential to bioaccumulate.
Partition coefficient: n- octanol/water	 log Pow: > 6Remarks: (based on information on similar products)
12.4 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.

12.5 Results of PBT and vPvB assessment

Version 1.3	Revision Date 06.11.2018	Print Date 05.07.2019
Product:		
Assessment	: This mixture does not contain any RE substances that are assessed to be a	5
12.6 Other adverse effects		
Product:		
Additional ecological information	 Does not have ozone depletion poten ozone creation potential or global war is a mixture of non-volatile componen released to air in any significant quan conditions of use. Poorly soluble mixture., Causes phys organisms. 	rming potential., Product its, which will not be tities under normal

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 06*
Remarks :	Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Revision Date 06.11.2018

Print Date 05.07.2019

Classification of waste is always the responsibility of the end user.

SECTION 14: Transport information

14.1 UN number	
ADN ADR RID IMDG IATA	 Not regulated as a dangerous good
14.2 Proper shipping name	
ADN ADR RID IMDG IATA	 Not regulated as a dangerous good
14.3 Transport hazard class	
ADN ADR RID IMDG IATA	 Not regulated as a dangerous good
14.4 Packing group	5 5 5
ADN CDNI Inland Water Waste Agreement ADR RID IMDG IATA	 Not regulated as a dangerous good NST 3411 Engine oil Not regulated as a dangerous good
14.5 Environmental hazards	5 5 5
ADN ADR RID IMDG	 Not regulated as a dangerous good
14.6 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.

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

Not applicable for product as supplied. MARPOL Annex 1 rules apply for bulk shipments by sea.

Revision Date 06.11.2018

Print Date 05.07.2019

SECTION 15: Regulatory information

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

REACH - List of substances subject to authorisation	: Product is not subject to
(Annex XIV)	Authorisation under REACH.

Occupational Illnesses (R- 461-3, France)	: 36
Volatile organic compounds	: 0%
Other regulations	: The following regulatory information is not intended to be comprehensive and does not exempt the end user of the product to refer to all official documents to determine its obligations.
	According type of product and quantity stored, check for applicability of Code of environment: art. R511-9 - Nomenclature of classified facilities.
	Labour code : Exposure forbidden to certain works/products to - Young people under 16 years old : art. D4153-25 - Young people under 18 years old : art. D4153-26, D4153-27 - Pregnant or breast-feeding women : art. D4152-10, D4152- 11
	- Fixed term-contract or temporary staff : art. D4154-1, D4154-2
	Social security code - Article L.461-6, Appendix A, no. 601-15. Labour code - Intensified medical supervision: Articles R.4624-18 and R.4624-19, decree 2012-135 of 30.01.2012.
	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), annex XIV.
	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), annex XVII.
	Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances (Seveso III). Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work and its amendments.
	Directive 1994/33/EC on the protection of young people at work and its amendments.
	Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of

Version 1.3	Revision Date 06.11.2018	Print Date 05.07.2019
	pregnant workers and workers who ha	ave recently given birth

pregnant workers and workers who have recently given birth or are breastfeeding and its amendments.

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

EINECS/ELINCS/EC	:	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

,

Full text of H-Statemer H304 H315 H318 H411 H413	nts May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye damage. Toxic to aquatic life with long lasting effects. May cause long lasting harmful effects to aquatic life.
Full text of other abbre	eviations
Aquatic Chronic Asp. Tox. Eye Dam. Skin Irrit. Abbreviations and Acro	Long-term (chronic) aquatic hazard Aspiration hazard Serious eye damage Skin irritation

ersion 1.3	Revision Date 06.11.2018	Print Date 05.07.201
	ECETOC = European Center on E Toxicology Of Chemicals ECHA = European Chemicals Age EINECS = The European Inventor Chemical Substances EL50 = Effective Loading fifty ENCS = Japanese Existing and Ne Inventory EWC = European Waste Code GHS = Globally Harmonised Syste Labelling of Chemicals IARC = International Agency for R IATA = International Agency for R IATA = International Air Transport IC50 = Inhibitory Concentration fift IL50 = Inhibitory Concentration fift IL50 = Inhibitory Level fifty IMDG = International Maritime Dar INV = Chinese Chemicals Inventor IP346 = Institute of Petroleum tes determination of polycyclic aromat KECI = Korea Existing Chemicals LC50 = Lethal Dose fifty per cent. LL/EL/IL = Lethal Loading/Effective LL50 = Lethal Loading fifty MARPOL = International Conventi Pollution From Ships NOEC/NOEL = No Observed Effect Observed Effect Level OE_HPV = Occupational Exposure PBT = Persistent, Bioaccumulative PICCS = Philippine Inventory of CI Substances PNEC = Predicted No Effect Conc REACH = Registration Evaluation Chemicals RID = Regulations Relating to Inte Dangerous Goods by Rail SKIN_DES = Skin Designation STEL = Short term exposure limit TRA = Targeted Risk Assessment TSCA = US Toxic Substances Cor TWA = Time-Weighted Average vPvB = very Persistent and very B	ew Chemical Substances em of Classification and esearch on Cancer Association y ngerous Goods y at method N° 346 for the ics DMSO-extractables Inventory e Loading/Inhibitory loading on for the Prevention of ct Concentration / No e - High Production Volume e and Toxic hemicals and Chemical entration And Authorisation Of rnational Carriage of
Further information		
Training advice	:	
	Provide adequate information, inst operators.	ruction and training for

Version 1.2	Devision Date 00.11.2019	Drint Data 05 07 2010
Version 1.3	Revision Date 06.11.2018	Print Date 05.07.2019
	sheet. It is a non-classified mixture containing hazardous substances as detailed in Section 3; relevant information from Exposure Scenarios for the hazardous substances contained have been integrated into the core sections 1-16 of this SDS. 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 lim sources of information (e.g. toxicolog Health Services, material suppliers' d IUCLID date base, EC 1272 regulatio	ical data from Shell lata, CONCAWE, EU

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.