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

1.1 Product identifier

Trade name	:	Helix Ultra ECT 5W-30
Product code	:	001E9070

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

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

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

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		according to CLP criteri HEALTH HAZARDS: Not classified as a healt criteria. ENVIRONMENTAL HA Not classified as environ according to CLP criteri	th hazard under CLP ZARDS: nmental hazard
Precautionary statements	 Prevention: Response: 	No precautionary phras	65
		No precautionary phras	
	Storage: Disposal:	No precautionary phras	es.
	Disposal.	No precautionary phras	es.

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) DMSO- extract, according to IP346. The highly refined mineral oil is only present as additive diluent.
	 * 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		

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	number	1272/2008)	
Alkylated phenol ester	125643-61-0 406-040-9 / 01- 2119565113-46	Aquatic Chronic4; H413	1 - 3
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. 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 and 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	mec	lical 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

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Unsuitable extinguishing media 5.2 Special hazards arising from	dioxide, sand or earth may be used for : Do not use water in a jet. the substance or mixture	small fires only.
Specific hazards during firefighting	: Hazardous combustion products may in mixture of airborne solid and liquid part (smoke). Carbon monoxide may be ever combustion occurs. Unidentified organic compounds.	ticulates and gases olved if incomplete
5.3 Advice for firefighters		
Special protective equipment for firefighters	: Proper protective equipment including gloves are to be worn; chemical resista large contact with spilled product is exp Breathing Apparatus must be worn who a confined space. Select fire fighter's c relevant Standards (e.g. Europe: EN40	ant suit is indicated if pected. Self-Contained en approaching a fire in lothing approved to
Specific extinguishing methods	: Use extinguishing measures that are a circumstances and the surrounding en	ppropriate 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.
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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, inc	luding any incompatibilities			
Other data	Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers.			
	Store at ambient temperature.			
	Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.			
	The storage of this product may be subject to the Control of Pollution (Oil Storage) (England) Regulations. Further guidance may be obtained from the local environmental agency office.			
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.			
7.3 Specific end use(s)				

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 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.

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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 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. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.
Skin and body protection	Skin protection is not ordinarily required beyond standard work clothes. It is good practice to wear chemical resistant gloves.
Respiratory protection	No respiratory protection is ordinarily required under normal
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	conditions of use. In accordance with good industrial precautions should be taken to av If engineering controls do not main concentrations to a level which is a health, select respiratory protectio specific conditions of use and mee Check with respiratory protective of Where air-filtering respirators are a appropriate combination of mask a Select a filter suitable for combine and vapours [Type A/Type P boilin meeting EN14387 and EN143.	oid breathing of material. ntain airborne adequate to protect worker n equipment suitable for the eting relevant legislation. equipment suppliers. suitable, select an and filter. d particulate/organic gases
Thermal hazards	: Not applicable	
Hygiene measures	: Exposure to this product should be reasonably practicable. Reference Health and Safety Executive's pub Essentials".	e should be made to the
Environmental exposure	controls	
General advice	: Take appropriate measures to fulf relevant environmental protection contamination of the environment Chapter 6. If necessary, prevent u being discharged to waste water. I treated in a municipal or industrial before discharge to surface water. Local guidelines on emission limits must be observed for the discharg vapour.	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

9.1 Information on basic physical and chemical properties

Appearance	: Liquid at room temperature.
Colour	: amber
Odour	: Slight hydrocarbon
Odour Threshold	: Data not available
рН	: Not applicable
pour point	: -48 °CMethod: ASTM D97

ion 1.1		Revision Date 16.11.2015	Print Date 12.03.20
Initial boiling point and boiling range	:	> 280 °Cestimated value(s)	
Flash point	:	240 °C Method: ASTM D92	
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	:	0.852 (15 °C)	
Density	:	852 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	:	Pow: > 6(based on information on simila	ar products)
Auto-ignition temperature	:	> 320 °C	
Viscosity			
Viscosity, dynamic	:	Data not available	
Viscosity, kinematic	:	73.95 mm2/s (40.0 °C) Method: ASTM D445	
		12.02 mm2/s (100 °C) Method: ASTM D445	
Explosive properties	:	Not classified	
Oxidizing properties		Data not available	

9.2 Other information

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

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.		

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 <u>Product:</u>				
	Acute oral toxicity	:	LD50 rat: > 5,000 mg/kg Remarks: Expected to be of low toxicity:	

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Acute inhalation toxicity	: Remarks: Not considered to be an ir normal conditions of use.	nhalation hazard under
Acute dermal toxicity	: LD50 Rabbit: > 5,000 mg/kg Remarks: Expected to be of low toxi	city:

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:

Remarks: Not expected to be carcinogenic.

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

Reproductive toxicity

Product:

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

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STOT - single exposure

Product:

Remarks: Not expected to be a hazard.

STOT - repeated exposure

Product:

Remarks: Not expected to be a hazard.

Aspiration toxicity

Product:

Not considered an aspiration hazard.

Further information

Product:

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

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

Remarks: Slightly irritating to respiratory system.

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 categories 1A/1B.	in
Carcinogenicity - Assessment	: This product does not meet the criteria for classification categories 1A/1B.	in
Reproductive toxicity - Assessment	: This product does not meet the criteria for classification categories 1A/1B.	in

SECTION 12: Ecological information

12.1 Toxicity

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Basis for assessment Product:	:	Ecotoxicological data have not been of for this product. Information given is based on a knowl and the ecotoxicology of similar produ Unless indicated otherwise, the data p representative of the product as a who individual component(s).(LL/EL/IL50 e nominal amount of product required to extract).	edge of the components licts. bresented is ble, rather than for expressed as the
Toxicity to fish (Acute toxicity)	:	Remarks: Expected to be practically n LL/EL/IL50 > 100 mg/l	on toxic:
Toxicity to crustacean (Acute toxicity)	:	Remarks: Expected to be practically n LL/EL/IL50 > 100 mg/l	ion toxic:
Toxicity to algae/aquatic plants (Acute toxicity)	:	Remarks: Expected to be practically n LL/EL/IL50 > 100 mg/l	on toxic:
Toxicity to fish (Chronic		Remarks: Data not available	
toxicity) Toxicity to crustacean (Chronic toxicity) Toxicity to microorganisms	:	Remarks: Data not available	
Toxicity to microorganisms (Acute toxicity)	•	Remarks: Data not available	

12.2 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.
12.3	Bioaccumulative potential		
	Product:		
	Bioaccumulation	:	Remarks: Contains components with the potential to bioaccumulate.
	Partition coefficient: n- octanol/water	:	Pow: > 6Remarks: (based on information on similar products)
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.

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12.5 Results of PBT and vPvB	assessment	
Product:		
Assessment	: This mixture does not contain any RE substances that are assessed to be a	
12.6 Other adverse effects		
Product:		
Additional ecological information	 Product is a mixture of non-volatile co expected to be released to air in any s Not expected to have ozone depletion photochemical ozone creation potentia potential. Poorly soluble mixture., May cause ph organisms. 	significant quantities., potential, al or global warming

SECTION 13: Disposal considerations

SECTION 15. Disposal considerations			
13.1 Waste treatment methods			
Product	: 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.		
Local legislation			
Waste catalogue	: EU Waste Disposal Code (EWC):		
Waste Code	: 13 02 06*		
Remarks	: Classification of waste is always the responsibility of the end user.		

SECTION 14: Transport information

14.1 UN number ADR	: Not regulated as a dangerous good	
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RID IMDG IATA 14.2 Proper shipping name	 Not regulated as a dangerous good Not regulated as a dangerous good Not regulated as a dangerous good 	
ADR RID IMDG IATA	 Not regulated as a dangerous good 	
14.3 Transport hazard class ADR RID IMDG IATA	 Not regulated as a dangerous good 	
14.4 Packing group ADR RID IMDG IATA	 Not regulated as a dangerous good 	
14.5 Environmental hazards		
ADR RID IMDG	 Not regulated as a dangerous good Not regulated as a dangerous good Not regulated as a dangerous good 	
14.6 Special precautions for user Remarks	 Special Precautions: Refer to Chapter 7 for special precautions which a user nee needs to comply with in connection with 	eds to be aware of or
14.7 Transport in bulk according	to Annex II of MARPOL 73/78 and the IBC	Code
Pollution category Ship type Product name Special precautions	 Not applicable Not applicable Not applicable Not applicable 	
Additional Information	: MARPOL Annex 1 rules apply for bulk s	hipments by sea.

SECTION 15: Regulatory information

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

REACH - List of substances si (Annex XIV)	ubject to authorisation	: Product is not subject to Authorisation under REACH.
Volatile organic compounds	: 0%	
Other regulations		ction Act 1990 (as amended). Health and ct 1974. Consumers Protection Act 1987.
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GB

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	Pollution Prevention and Control Act 1995. Factories Act 1961. The Carria and Use of Transportable Pressure I Regulations 2011. Chemicals (Haza Packaging for Supply) Regulations 2 Substances Hazardous to Health Re amended). Merchant Shipping (Dang Pollutants) Regulations 1997. Repor and Dangerous Occurrences Regula Personal Protective Equipment Regula Protective Equipment at Work Regula Waste (England and Wales) Regulat Control of Major Accident Hazards R amended). Renewable Transport Fu (as amended). Energy Act 2011. Env (England and Wales) Regulations 20 (England and Wales) Regulations 20 Planning (Hazardous Substances) A regulations. The Environmental Prot Ozone-Depleting Substances) Regulations	age of Dangerous Goods Equipment (Amendment) rd Information and 2009. Control of egulations 2002 (as gerous Goods and Marine ting of Injuries, Diseases ations 1995 (as amended). ulations 2002. Personal lations 1992. Hazardous tions 2005(as amended). Regulations 1999 (as lel Obligations Order 2007 vironmental Permitting 010 (as amended). Waste 011 (as amended). Let 1990 and associated ection (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

Full	text	of	H-Statements
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H304	May be fatal if swallowed and enters airways.
H413	May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

Aquatic Chronic Asp. Tox.	Chronic aquatic toxicity Aspiration hazard	
Abbreviations and Acro	yms : The standard abbreviations and acronyms of document can be looked up in reference liter scientific dictionaries) and/or websites.	
	ACGIH = American Conference of Governn Hygienists	
	ADR = European Agreement concerning the Carriage of Dangerous Goods by Road AICS = Australian Inventory of Chemical Su	

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	ASTM = American Society for Testing and Materials BEL = Biological exposure limits BTEX = Benzene, Toluene, Ethylbenzene, Xylenes CAS = Chemical Abstracts Service	
	CEFIC = European Chemical Industry Co	
	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 Ecotoxic	ology and
	Toxicology Of Chemicals	
	ECHA = European Chemicals Agency	ating Commercial
	EINECS = The European Inventory of Exi Chemical Substances	sting Commercial
	EL50 = Effective Loading fifty	
	ENCS = Japanese Existing and New Che	mical Substances
	Inventory	
	EWC = Éuropean Waste Code	
	GHS = Globally Harmonised System of Cl	lassification and
	Labelling of Chemicals	-
	IARC = International Agency for Research	
	IATA = International Air Transport Associa IC50 = Inhibitory Concentration fifty	ation
	IL50 = Inhibitory Level fifty	
	IMDG = International Maritime Dangerous	Goods
	INV = Chinese Chemicals Inventory	
	IP346 = Institute of Petroleum test metho	od N° 346 for the
	determination of polycyclic aromatics DMS	
	KECI = Korea Existing Chemicals Invento	ry
	LC50 = Lethal Concentration fifty	
	LD50 = Lethal Dose fifty per cent. LL/EL/IL = Lethal Loading/Effective Loadin	na/Inhibitory loading
	LL50 = Lethal Loading fifty	ng/minibitory loading
	MARPOL = International Convention for th	ne Prevention of
	Pollution From Ships	
	NOEC/NOEL = No Observed Effect Conc	entration / No
	Observed Effect Level	
	OE_HPV = Occupational Exposure - High	
	PBT = Persistent, Bioaccumulative and To	
	PICCS = Philippine Inventory of Chemical Substances	s and chemical
	PNEC = Predicted No Effect Concentratio	n
	REACH = Registration Evaluation And Au	
	Chemicals	
	RID = Regulations Relating to Internationa	al Carriage of
	Dangerous Goods by Rail	
	SKIN_DES = Skin Designation	
	STEL = Short term exposure limit	
	TRA = Targeted Risk Assessment	

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	TSCA = US Toxic Substances Control Act TWA = Time-Weighted Average vPvB = very Persistent and very Bioaccumulative	
Further information		
Other information	: No Exposure Scenario annex is attached to this safety data 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.	

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.