SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Material Name	:	Shell Advance VSX 2
Product Code	:	001A9109

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

Product Use	: Engine oil.

Uses Advised Against : This product must not be used in applications other than those recommended 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 Email Contact for Safety Data Sheet	:	(+44) 08708500939 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

1999/45/EC	
Hazard Characteristics	R-phrase(s)
Not classified as dangerous under EC criteria.;	

2.2 Label Elements

Labeling according to Directive 1999/45/EC

EC Symbols	:	No Hazard Symbol required
EC Classification EC Risk Phrases EC Safety Phrases	:	Not classified as dangerous under EC criteria. Not classified. Not classified.
2.3 Other Hazards		
Health Hazards	:	Not expected to be a health hazard when used under normal conditions. 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.
Safety Hazards	:	Not classified as flammable but will burn.
Environmental Hazards	:	Not classified as dangerous for the environment.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance		
Material Name	:	Not applicable.
3.2 Mixtures		
Mixture Description	:	Highly refined mineral oils, additives and kerosine or similar hydrocarbon solvent.

Hazardous Components

Classification of components according to Regulation (EC) No 1272/2008

Chemical Name	CAS No.	EC Number	REACH Registration	Conc.
			No.	
Distillates (petroleum),	64742-47-8	265-149-8	01-2119484819-18	15.00 -
hydrotreated light				30.00%
Interchangeable low	*	*	*	0.00 - 60.00%
viscosity base oil				
(<20,5 cSt @40°C) *				

Chemical Name	Hazard Class & Category	Hazard Statement
Distillates (petroleum),	Asp. Tox., 1;	H304; EUH066;
hydrotreated light		
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *	Asp. Tox., 1;	H304;

Classification of components according to 67/548/EEC

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Chemical Name	CAS No.	EC Number	REACH Registration No.	Symbol(s)	R-phrase(s)	Conc.
Distillates (petroleum), hvdrotreated	64742-47-8	265-149-8	01- 2119484819- 18	Xn	R65; R66	15.00 - 30.00%
light			10			

Additional Information

The highly refined mineral oil contains <3% (w/w) DMSOextract, according to IP346.

Refer to Ch 16 for full text of R- and H- phrases.

* 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 (01-000020164-80).

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

SECTION 4. FIRST AID MEASURES

4.1 Description of First Aid Measures

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

SECTION 5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

5.1 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.
5.2 Special hazards arising from the substance or mixture	:	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.
5.3 Advice for firefighters	:	Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Observe the relevant local and international regulations.

6.2 Environmental Precautions	:	6.1.2 For emergency responders: Avoid contact with skin and eyes.Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
6.3 Methods and Material for Containment and Cleaning Up	:	Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
Additional Advice	:	Local authorities should be advised if significant spillages cannot be contained.
6.4 Reference to other sections	:	For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet.

SECTION 7. HANDLING AND STORAGE

General Precautions 7.1 Precautions for Safe Handling	 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. 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. Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. 		
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, including any incompatibilities	: 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.		
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Recommended Materials	:	For containers or container linings, use mild steel or high density polyethylene.
Unsuitable Materials	:	PVC.
7.3 Specific end use(s)	:	Not applicable
Additional Information	:	Polyethylene containers should not be exposed to high
		temperatures because of possible risk of distortion.
		Exposure to this product should be reduced as low as
		reasonably practicable. Reference should be made to the
		Health and Safety Executive's publication "COSHH Essentials".

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

If the American Conference of Governmental Industrial Hygienists (ACGIH) value is provided on this document, it is provided for information only.

8.1 Control Parameters

Occupational Exposure Limits

Material	Source	Туре	ppm	mg/m3	Notation
Oil mist, mineral	ACGIH	TWA(Inhala ble fraction.)		5 mg/m3	
Distillates (petroleum), hydrotreated light	ACGIH	TWA(Non- aerosol.)		200 mg/m3	P: Application restricted to conditions in which there are negligible aerosol exposures.as total hydrocarbon vapor
	ACGIH	SKIN_DES(Non- aerosol.)			Can be absorbed through the skin.as total hydrocarbon vapor

Biological Exposure Index (BEI)

No biological limit allocated.

PNEC related information	:	Data not available
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 General Information	:	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. 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 for 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.

Occupational Exposure Controls

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	 Wear safety glasses or full face shield if splashes are likely to occur. Approved to EU Standard EN166.
Hand Protection	 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 recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be 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.
Body protection	: Skin protection not ordinarily required beyond standard issue

Respiratory Protection	 work clothes. No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN14387.
Thermal Hazards	: Not applicable.

Environmental Exposure Controls

Environmental exposure	:	Minimise release to the environment. An environmental
control measures		assessment must be made to ensure compliance with local
		environmental legislation. Information on accidental release
		measures are to be found in section 6.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Odour Odour threshold pH Initial Boiling Point and Boiling Range	 Amber. Liquid at room temperature. Slight hydrocarbon. Data not available Not applicable. > 280 °C / 536 °F estimated value(s)
Pour point	: Typical -20 °C / -4 °F
Flash point	: Typical 132 °C / 270 °F (COC)
Upper / lower Flammability or Explosion limits	: Typical 1 - 10 %(V) (based on mineral oil)
Auto-ignition temperature	: > 320 °C / 608 °F
Vapour pressure	: < 0.5 Pa at 20 °C / 68 °F (estimated value(s))
Relative Density	: Typical 0.863 at 15 °C / 59 °F
Density	: Typical 863 kg/m3 at 15 °C / 59 °F
Water solubility	: Negligible.
Solubility in other solvents	: Data not available
n-octanol/water partition coefficient (log Pow)	: > 6 (based on information on similar products)

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Dynamic viscosity Kinematic viscosity Vapour density (air=1) Evaporation rate (nBuAc=1) Decomposition Temperature	:	Data not available Typical 67 mm2/s at 40 °C / 104 °F > 1 (estimated value(s)) Data not available Data not available
Flammability		Data not available
Oxidizing Properties	-	Data not available
Explosive Properties	:	Not classified
9.2 Other Information Electrical conductivity	:	This material is not expected to be a static accumulator.
Other Information Volatile organic compound	-	Data not available 15 %

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	 No hazardous reaction is expected when handled and stored according to provisions.
10.3 Possibility of	
Hazardous Reactions	Reacts with strong oxidising agents.
10.4 Conditions to Avoid	: Extremes of temperature and direct sunlight.
10.5 Incompatible	: Strong oxidising agents.
Materials	5 5 5
10.6 Hazardous	: Hazardous decomposition products are not expected to form
Decomposition Products	during normal storage.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects

Basis for Assessment Likely Routes of	 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). Skin and eye contact are the primary routes of exposure
Exposure	although exposure may occur following accidental ingestion.

Acute Oral Toxicity Acute Dermal Toxicity Acute Inhalation Toxicity	:	Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit Not considered to be an inhalation hazard under normal conditions of use.
Skin corrosion/irritation	:	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/irritation	:	Expected to be slightly irritating.
Respiratory Irritation Respiratory or skin sensitisation Aspiration Hazard	:	Inhalation of vapours or mists may cause irritation. For respiratory and skin sensitisation: Not expected to be a sensitiser. Not considered an aspiration hazard.
•		·
Germ cell mutagenicity Carcinogenicity	:	Not considered a mutagenic hazard. Not expected to be carcinogenic. Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Material	:	Carcinogenicity Classification
Highly refined mineral oil (IP346 <3%)	:	ACGIH Group A4: Not classifiable as a human carcinogen.
Highly refined mineral oil (IP346 <3%)	:	IARC 3: Not classifiable as to carcinogenicity to humans.
Highly refined mineral oil (IP346 <3%)	:	GHS / CLP: No carcinogenicity classification
Distillates (petroleum), hydrotreated light	:	ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans.
Distillates (petroleum), hydrotreated light	:	IARC 3: Not classifiable as to carcinogenicity to humans.
Distillates (petroleum), hydrotreated light	:	GHS / CLP: No carcinogenicity classification

Reproductive and Developmental Toxicity

: Not expected to be a hazard.

Summary on evaluation of the CMR properties Carcinogenicity : This product does not meet the criteria for classification in

j,	-	categories 1A/1B.,
Mutagenicity	:	This product does not meet the criteria for classification in categories 1A/1B.
Reproductive Toxicity	:	This product does not meet the criteria for classification in
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(fertility)		categories 1A/1B.
Specific target organ toxicity - single exposure	:	Not expected to be a hazard.
	:	Not expected to be a hazard.
	:	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. Continuous contact with used engine oils has caused skin cancer in animal tests. Classifications by other authorities under varying regulatory frameworks may exist.

SECTION 12. ECOLOGICAL INFORMATION

Basis for Assessment	:	Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).	
12.1 Toxicity Acute Toxicity	:	Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract. Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.	
12.2 Persistence and degradability	:	Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.	
12.3 Bioaccumulative Potential	:	Contains components with the potential to bioaccumulate.	
12.4 Mobility in Soil	:	Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile. Floats on water.	
12.5 Result of PBT and	:	This mixture does not contain any REACH registered	
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rint Date 07.12.2012		00000000115	Ē

vPvB assesment	substances that are assessed to be a PBT or a vPvB.
12.6 Other Adverse : Effects	Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Material Disposal :	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.
Container Disposal	Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
Local Legislation	Disposal should be in accordance with applicable regional, national, and local laws and regulations. EU Waste Disposal Code (EWC): 13 02 05 mineral-based non- chlorinated engine, gear and lubricating oils. Classification of waste is always the responsibility of the end user.

SECTION 14. TRANSPORT INFORMATION

Land transport (ADR/RID):

ADR

This product is not classified as dangerous for this mode of transport. Therefore 14.1 UN Number, 14.2 UN Proper Shipping name, 14.3 Transport hazard class(es), 14.4 Packing group, 14.5 Environmental hazards, 14.6 Special precautions for user do not apply.

RID

This product is not classified as dangerous for this mode of transport. Therefore 14.1 UN Number, 14.2 UN Proper Shipping name, 14.3 Transport hazard class(es), 14.4 Packing group, 14.5 Environmental hazards, 14.6 Special precautions for user do not apply.

Inland waterways transport (ADN):

This product is not classified as dangerous for this mode of transport. Therefore 14.1 UN Number, 14.2 UN Proper Shipping name, 14.3 Transport hazard class(es), 14.4 Packing group,

14.5 Environmental hazards, 14.6 Special precautions for user do not apply.

Sea transport (IMDG Code):

This product is not classified as dangerous for this mode of transport. Therefore 14.1 UN Number, 14.2 UN Proper Shipping name, 14.3 Transport hazard class(es), 14.4 Packing group, 14.5 Environmental hazards, 14.6 Special precautions for user do not apply.

Air transport (IATA):

This product is not classified as dangerous for this mode of transport. Therefore 14.1 UN Number, 14.2 UN Proper Shipping name, 14.3 Transport hazard class(es), 14.4 Packing group, 14.5 Environmental hazards, 14.6 Special precautions for user do not apply.

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

Pollution Category	:	Not applicable.
Ship Type	:	Not applicable.
Product Name	:	Not applicable.
Special Precaution	:	Not applicable.

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

SECTION 15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

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

Other regulatory Information Authorisations and/or : restrictions on use	Product is not subject to Authorisation under REACh.
Recommended : Restrictions on Use (Advice Against)	This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier.
Chemical Inventory Status	
EINECS :	All components listed or polymer exempt.
TSCA :	All components listed.

Other Information	 Environmental Protection Act 1990 (as amended). Health and Safety at Work etc. Act 1974. Consumers Protection Act 1987. Pollution Prevention and Control Act 1999. Environment Act 1995. Factories Act 1961. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2011. Chemicals (Hazard Information and Packaging for Supply) Decyloptione 2000
	Regulations 2009. Control of Substances Hazardous to Health Regulations 2002 (as amended).
	Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997.
	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (as amended).
	Personal Protective Equipment Regulations 2002. Personal Protective Equipment at Work Regulations 1992. Hazardous Waste (England and Wales) Regulations 2005(as amended).
	Control of Major Accident Hazards Regulations 1999 (as amended).
	Renewable Transport Fuel Obligations Order 2007 (as amended). Energy Act 2011.
	Environmental Permitting (England and Wales) Regulations 2010 (as amended).
	Waste (England and Wales) Regulations 2011 (as amended). Planning (Hazardous Substances) Act 1990 and associated regulations.
	The Environmental Protection (Controls on Ozone-Depleting Substances) Regulations 2011.
15.2 Chemical Safety Assessment	: No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16. OTHER INFORMATION

R-phrase(s)

	Not classified.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.

CLP Hazard Statements H304 May be fatal if swallowed and enters airways.			
Additional 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.	
Other Information		Ŭ	
Abbreviations and Acronyms	:	Acute Tox. = Acute toxicity Asp. Tox. = Aspiration hazard Aquatic Acute = Acute hazards to the aquatic environment Aquatic Chronic = Hazardous to the aquatic environment - Long-term Hazard Eye Dam. = Serious eye damage/eye irritation Flam. Liq. = Flammable liquids Skin Corr. = Skin corrosion/irritation Skin Sens. = Skin sensitizer STOT SE = Specific target organ toxicity - single exposure STOT RE = Specific target organ toxicity - repeated exposure The standard abbreviations and acronyms used in this 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, Xylenes 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 DNEL = Derived No Effect Level DSL = Canada Domestic Substance List	

Regulation 1907/2006/EC

Safety Data Sheet

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 LC50 = Lethal Concentration fifty LD50 = Lethal Dose fifty per cent. LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading LL50 = Lethal Loading fifty MARPOL = International Convention for the Prevention of Pollution From Ships NOEC/NOEL = No Observed Effect Concentration / No **Observed Effect Level** OE HPV = Occupational Exposure - High Production Volume PBT = Persistent, Bioaccumulative and Toxic PICCS = Philippine Inventory of Chemicals and Chemical Substances PNEC = Predicted No Effect Concentration REACH = Registration Evaluation And Authorisation Of Chemicals RID = Regulations Relating to International Carriage of Dangerous Goods by Rail SKIN_DES = Skin Designation STEL = Short term exposure limit TRA = Targeted Risk Assessment TSCA = US Toxic Substances Control Act TWA = Time-Weighted Average

		vPvB = very Persistent and very Bioaccumulative
SDS Distribution	:	The information in this document should be made available to all who may handle the product. 3.0
SDS Version Number	:	
SDS Effective Date	:	03.12.2012
SDS Revisions	:	A vertical bar () in the left margin indicates an amendment from the previous version.
SDS Regulation	:	Regulation 1907/2006/EC as amended by Regulation (EU) 453/2010
Disclaimer	:	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.