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

1.1 Product identifier

Trade name	:	Shell Tonna S3 M 32
Product code	:	001D7773

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

Use of the Substance/Mixture	:	Machine 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 in the second se

: +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 according to CLP criteria.

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		HEALTH HAZARDS: Not classified as a he criteria. ENVIRONMENTAL H Not classified as envir according to CLP crite	ronmental hazard
Precautionary statements	: Prevention:	No precautionary phra	2000
	Response:		
	Storage:	No precautionary phra	ases.
	Disposal:	No precautionary phra	ases.
	Dioposui.	No precautionary phra	ases.

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) DMSO- extract, 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-

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)	
ſ	Interchangeable low		Asp. Tox.1; H304	0 - 90
	viscosity base oil			
	(<20,5 cSt @40°C) *			

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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. : Flush eye with copious quantities of water. In case of eye contact 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 : Oil acne/folliculitis signs and symptoms may include formation Symptoms 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 Unsuitable extinguishing media 5.2 Special hazards arising from	:	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.
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

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5.3 Advice for firefighters	combustion occurs. Unidentified orga compounds.	nic and inorganic
Special protective equipment for firefighters	: Proper protective equipment including gloves are to be worn; chemical resist large contact with spilled product is e Breathing Apparatus must be worn w a confined space. Select fire fighter's relevant Standards (e.g. Europe: EN	tant suit is indicated if xpected. Self-Contained hen approaching a fire in 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

Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

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

Shell Tonna S3 M 32		
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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.	F
7.1 Precautions for safe handlin		
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,	ncluding 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)		
Specific use(s)	: Not applicable	

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

SAFETY DATA SHEET Regulation 1907/2006/EC Shell Tonna S3 M 32

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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

SAFETY DATA SHEET Regulation 1907/2006/EC Shell Tonna S3 M 32

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	made in consideration of the PPE directi European Committee for Standardisation	
Personal protective equipme PPE suppliers.	ent (PPE) should meet recommended na	tional standards. Check with
Eye protection	: If material is handled such that it of protective eyewear is recommend Approved to EU Standard EN166.	ed.
Hand protection		
Remarks	: Where hand contact with the prod gloves approved to relevant stand US: F739) made from the following suitable chemical protection. PVC gloves Suitability and durability of usage, e.g. frequency and duration resistance of glove material, dexter from glove suppliers. Contaminate replaced. Personal hygiene is a key care. Gloves must only be worn of gloves, hands should be washed a Application of a non-perfumed mo	ards (e.g. Europe: EN374, g materials may provide , neoprene or nitrile rubber a glove is dependent on n of contact, chemical erity. Always seek advice ed gloves should be ey element of effective hand n clean hands. After using and dried thoroughly.
	For continuous contact we recomm breakthrough time of more than 24 for > 480 minutes where suitable of short-term/splash protection we re- recognize that suitable gloves offer may not be available and in this ca time maybe acceptable so long as and replacement regimes are follor a good predictor of glove resistant dependent on the exact compositi Glove thickness should be typicall depending on the glove make and	40 minutes with preference gloves can be identified. For ecommend the same, but ering this level of protection ase a lower breakthrough appropriate maintenance owed. Glove thickness is not ce to a chemical as it is on of the glove material. y greater than 0.35 mm
Skin and body protection	 Skin protection is not ordinarily red work clothes. It is good practice to wear chemica 	
Respiratory protection	 No respiratory protection is ordina conditions of use. In accordance with good industria 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 meet 	l hygiene practices, oid breathing of material. ntain airborne adequate to protect worker n equipment suitable for the

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	Check with respiratory protective eq Where air-filtering respirators are su appropriate combination of mask and Select a filter suitable for combined p and vapours [Type A/Type P boiling meeting EN14387 and EN143.	itable, select an d filter. particulate/organic gases
Thermal hazards	: Not applicable	
Hygiene measures	: 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".	
Environmental exposure co	ntrols	
General advice	: Take appropriate measures to fulfill f relevant environmental protection leg contamination of the environment by Chapter 6. If necessary, prevent un- being discharged to waste water. Wa treated in a municipal or industrial w before discharge to surface water. Local guidelines on emission limits f must be observed for the discharge vapour.	gislation. Avoid following advice given in dissolved material from aste water should be aste water treatment plant or volatile substances

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Liquid at room temperature.
Colour	:	light brown
Odour	:	Slight hydrocarbon
Odour Threshold	:	Data not available
рН	:	Not applicable
pour point	:	-30 °CMethod: ISO 3016
Initial boiling point and boiling range	:	> 280 °Cestimated value(s)
Flash point	:	215 °C Method: ISO 2592
Evaporation rate	:	Data not available

SAFETY DATA SHEET Regulation 1907/2006/EC Shell Tonna S3 M 32

Shell Tohna 55 W 52			
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Flammability (solid, gas)	: Data r	not available	
Upper explosion limit	: Typica	al 10 %(V)	
Lower explosion limit	: Typica	ll 1 %(V)	
Vapour pressure		Pa (20 °C) ated value(s)	
Relative vapour density	: > 1est	imated value(s)	
Relative density	: 0.870	(15 °C)	
Density		g/m3 (15.0 °C) d: ISO 12185	
Solubility(ies)			
Water solubility	: negligi	ible	
Solubility in other solvents	: Data r	not available	
Partition coefficient: n- octanol/water	: Pow:>	> 6(based on information on similarity)	ilar products)
Auto-ignition temperature	: > 320 °C	2	
Viscosity			
Viscosity, dynamic	: Data r	not available	
Viscosity, kinematic		n2/s (40.0 °C) d: ISO 3104	
		n2/s (100 °C) d: ISO 3104	
Explosive properties	: Not cla	assified	
Oxidizing properties	: Data r	not available	
9.2 Other information			
Conductivity Decomposition temperature		naterial is not expected to be a s not available	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

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 sublight
10.5 Incompatible materials	: Extremes of temperature and direct sunlight.
•	: Strong oxidising agents.
10.6 Hazardous decomposition pro	oducts
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		
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

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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:

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.

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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: Slightly irritating to respiratory system.

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

Summary on evaluation of the 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
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Product:		and the ecotoxicology of similar products. Unless indicated otherwise, the data press representative of the product as a whole, individual component(s).(LL/EL/IL50 expre nominal amount of product required to pre extract).	rather than for essed as the
<u>Flouuci.</u>			
Toxicity to fish (Acute toxicity)	:	Remarks: Expected to be practically non t LL/EL/IL50 > 100 mg/l	oxic:
Toxicity to crustacean (Acute toxicity)	:	Remarks: Expected to be practically non t LL/EL/IL50 > 100 mg/l	oxic:
Toxicity to algae/aquatic plants (Acute toxicity)	:	Remarks: Expected to be practically non t LL/EL/IL50 > 100 mg/l	oxic:
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: 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.

12.5 Results of PBT and vPvB assessment

Product:

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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 conservence of the released to air in any Not expected to have ozone depletion photochemical ozone creation potential. Poorly soluble mixture., May cause programisms. Mineral oil is not expected to cause a aquatic organisms at concentrations 	significant quantities., n potential, tial or global warming physical fouling of aquatic any chronic effects to

SECTION 13: Disposal considerations

13.1	I 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 05*
	Remarks	:	Classification of waste is always the responsibility of the end user.

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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GB

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IMDG	: Not regulated as a dangerous good	
IATA	: Not regulated as a dangerous good	
14.2 Proper shipping name		
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	
14.3 Transport hazard class		
ADR	: Not regulated as a dangerous good	
RID	: Not regulated as a dangerous good	
IMDG IATA	 Not regulated as a dangerous good Not regulated as a dangerous good 	
	. Not regulated as a dangerous good	
14.4 Packing group		
ADR RID	: Not regulated as a dangerous good	
RID IMDG	 Not regulated as a dangerous good Not regulated as a dangerous good 	
IATA	: 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 ne	
	needs to comply with in connection with	h transport.
14.7 Transport in bulk accordi	ng to Annex II of MARPOL 73/78 and the IB	C Code
Pollution category	: Not applicable	
Ship type	: Not applicable	
Product name	: Not applicable	
Special precautions	: Not applicable	
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	tion 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. Repor and Dangerous Occurrences Regula Personal Protective Equipment Reg Protective Equipment at Work Regu Waste (England and Wales) Regula Control of Major Accident Hazards F amended). Renewable Transport Fu (as amended). Energy Act 2011. En (England and Wales) Regulations 20 (England and Wales) Regulations 20 Planning (Hazardous Substances) A regulations. The Environmental Prot Ozone-Depleting Substances) Regu	Equipment (Amendment) Ind Information and 2009. Control of egulations 2002 (as gerous Goods and Marine rting of Injuries, Diseases ations 1995 (as amended). ulations 2002. Personal lations 1992. Hazardous tions 2005(as amended). Regulations 1999 (as uel Obligations Order 2007 vironmental 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

Full text of H-Statements H304 Ma

May be fatal if swallowed and enters airways.

Full text of other abbreviations

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	Asp. Tox. Abbreviations and	n hazard The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.
		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

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	CAS = Chemical Abstracts Service	e
	CEFIC = European Chemical Indu	
	CLP = Classification Packaging ar	
	COC = Cleveland Open-Cup	
	DIN = Deutsches Institut fur Norm	una
	DMEL = Derived Minimal Effect Le	
	DNEL = Derived No Effect Level	
	DSL = Canada Domestic Substan	ce List
	EC = European Commission	
	EC50 = Effective Concentration fif	tv
	ECETOC = European Center on E	
	Toxicology Of Chemicals	
	ECHA = European Chemicals Age	ancy
	EINECS = The European Inventor	
	Chemical Substances	y of Existing Commercial
	EL50 = Effective Loading fifty	
	ENCS = Japanese Existing and N	ew Chemical Substances
	Inventory	ew chemical Substances
	EWC = European Waste Code	
	•	am of Classification and
	GHS = Globally Harmonised Syste	
	Labelling of Chemicals	langersh en Canser
	IARC = International Agency for R	
	IATA = International Air Transport	
	IC50 = Inhibitory Concentration fift	LY
	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	inventory
	LC50 = Lethal Concentration fifty	
	LD50 = Lethal Dose fifty per cent.	
	LL/EL/IL = Lethal Loading/Effective	e Loading/Inhibitory loading
	LL50 = Lethal Loading fifty	
	MARPOL = International Conventi	ion for the Prevention of
	Pollution From Ships	
	NOEC/NOEL = No Observed Effe	ct Concentration / No
	Observed Effect Level	
	OE_HPV = Occupational Exposur	
	PBT = Persistent, Bioaccumulative	
	PICCS = Philippine Inventory of C	hemicals and Chemical
	Substances	
	PNEC = Predicted No Effect Conc	
	REACH = Registration Evaluation	And Authorisation Of
	Chemicals	
	RID = Regulations Relating to Inte	rnational Carriage of
	Dangerous Goods by Rail	
	SKIN_DES = Skin Designation	
	STEL = Short term exposure limit	
	TRA = Targeted Risk Assessment	t
	TSCA = US Toxic Substances Cor	
	TWA = Time-Weighted Average	
	vPvB = very Persistent and very B	lioaccumulative

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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.