

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS #: 39075 QUARTZ 9000 FUTURE NFC 5W-30

Date of the previous version: 2017-10-31 Revision Date: 2018-02-01 Version 4

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE

COMPANY/UNDERTAKING

1.1. Product identifier

Product name QUARTZ 9000 FUTURE NFC 5W-30

Number S02 Substance/mixture Mixture

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

Identified uses Motor oil.

1.3. Details of the supplier of the safety data sheet

Supplier A - TOTAL UK LIMITED

183 Eversholt St, Kings Cross

London, NW1 1BU UNITED KINGDOM Tel: +44 (0)20 7339 8000 Fax: +44 (0)20 7339 8033

B - TOTAL LUBRIFIANTS 562 Avenue du Parc de L'ile 92029 Nanterre Cedex

FRANCE

Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71***

For further information, please contact:

Contact Point A - HSE

B - HSE***

E-mail Address A - rm.gb-msds@total.co.uk

B - rm.msds-lubs@total.com***

1.4. Emergency telephone number

Emergency telephone: +44 1235 239670

UK: National Poisons Information Service (NPIS): NHS on 111 or a doctor

Section 2: HAZARDS IDENTIFICATION



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

For the full text of the H-Statements mentioned in this Section, see Section 2.2.***

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008***

2.2. Label elements

Labelled according to

REGULATION (EC) No 1272/2008***

Signal word

None***

Hazard Statements ***

None***

Precautionary statements

None***

Supplemental Hazard Statements

EUH210 - Safety data sheet available on request***

EUH208 - Contains C14-16-18 Alkyl phenol. May produce an allergic reaction***

2.3. Other hazards

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.***

Environmental properties The product may form an oil film on the water surface that may stop the oxygen

exchange.***

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture***

Mineral oil of petroleum origin.*** **Chemical nature**

Hazardous components	***				
Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight %	Classification (Reg. 1272/2008)
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based***	276-738-4	01-2119474889-13	72623-87-1	60-<70	Asp. Tox. 1 (H304)
Distillates (petroleum), hydrotreated heavy paraffinic***	265-157-1	01-2119484627-25	64742-54-7	1-<3	Asp. Tox. 1 (H304)



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

bis(nonylphenyl)amine***	253-249-4	01-2119488911-28	36878-20-3	1-<2.5	Aquatic Chronic 4 (H413)
C14-16-18 Alkyl phenol***	-	01-2119498288-19	٨	1-<3	STOT RE 2 (H373)
					Skin Sens. 1B (H317)

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.***

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR

EMERGENCY MEDICAL CARE.***

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Keep eye wide open while rinsing.***

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Wash contaminated clothing before reuse.***

Inhalation Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not

breathing, give artificial respiration.***

Ingestion Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an

unconscious person. Call a physician or poison control centre immediately.***

Protection of first-aiders First aider needs to protect himself. See Section 8 for more detail. Do not use

mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper

respiratory medical device.***

4.2. Most important symptoms and effects, both acute and delayed

Eye contact Not classified based on available data.***

Skin contact Not classified based on available data. May produce an allergic reaction.***

Inhalation Not classified based on available data. Inhalation of vapours in high concentration may

cause irritation of respiratory system.***

Ingestion Not classified based on available data. Ingestion may cause gastrointestinal irritation,

nausea, vomiting and diarrhoea.***

4.3. Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.***

Section 5: FIRE-FIGHTING MEASURES



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

5.1. Extinguishing media

Suitable extinguishing media Carbon dioxide (CO₂). ABC powder. Foam. Water spray or fog.***

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as

carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Combustion

products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S. Phosphorous oxides. Nitrogen oxides (NOx). Mercaptans. Zinc oxides.***

5.3. Precautions for fire-fighters

Special protective equipment for

fire-fighters

Wear self-contained breathing apparatus and protective suit.

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing

water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely

slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all

sources of ignition.***

6.2. Environmental precautions

General Information Do not allow material to contaminate ground water system. Prevent entry into waterways,

sewers, basements or confined areas. Local authorities should be advised if significant

spillages cannot be contained.***

6.3. Methods and material for containment and cleaning up

Methods for containment Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar

non-combustible materials.**

Methods for cleaning up

Dispose of contents/container in accordance with local regulation. In case of soil

contamination, remove contaminated soil for remediation or disposal, in accordance with

local regulations.***

6.4. Reference to other sections

Personal protective equipment See Section 8 for more detail.



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

Waste treatment See section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling For personal protection see section 8. Use only in well-ventilated areas. Do not breathe

vapours or spray mist. Avoid contact with skin, eyes and clothing.***

Prevention of fire and explosion Take precautionary measures against static discharges.***

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of

contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product

contaminated rags into workwear pockets.***

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage

conditions

Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Preferably keep in the original container. Otherwise, reproduce all the statutory information from the labels onto the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or

electrical contacts. Store at room temperature. Protect from moisture.**

Materials to avoid Strong oxidising agents.***

7.3. Specific use(s)

Specific use(s) Please refer to Technical Data Sheet for further information.***

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parametres

Exposure limits Mineral oil mist:

USA: OSHA (PEL) TWA 5 mg/m^3 , NIOSH (REL) TWA 5 mg/m^3 , STEL 10 mg/m^3 , ACGIH

(TLV) TWA 5 mg/m3 (highly refined)***

Legend See section 16

Derived No Effect Level (DNEL)

DNEL Worker (Industrial/Professional)***

Chemical Name Short term, systemic Short term, local effects Long term, systemic Long term, local effects



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

	effects	effects	
Lubricating oils			5.4 mg/m ³ /8h (aerosol -
(petroleum), C20-50,			inhalation)
hydrotreated neutral			
oil-based***			
72623-87-1			
Distillates (petroleum),			5.4 mg/m ³ /8h (aerosol -
hydrotreated heavy			inhalation)
paraffinic***			
64742-54-7			
bis(nonylphenyl)amine***		0.62 mg/kg bw/day	
36878-20-3		Dermal	
		4.37 mg/m ³ Inhalation	
C14-16-18 Alkyl	_	1.17 mg/m ³ (inhalation)	
phenol***		0.30 mg/kg bw/day	
. ^		(dermal)	

DNEL Consumer***

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1				1.2 mg/m³/24h (aerosol - inhalation)
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7				1.2 mg/m³/24h (aerosol - inhalation)
bis(nonylphenyl)amine*** 36878-20-3			0.31 mg/kg bw/day Dermal 1.09 mg/m³ Inhalation 0.31 mg/kg bw/day Oral	

Predicted No Effect Concentration *** (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
Lubricating oils						9.33 mg/kg food
(petroleum),						
C20-50,						
hydrotreated neutral						
oil-based***						
72623-87-1						
bis(nonylphenyl)ami	0.1 mg/l fw	132000 mg/kg dw	263000 mg/kg dw		1 mg/l	
ne***	0.01 mg/l mw	fw				
36878-20-3	1 mg/l or	13200 mg/kg dw				
		mw				
C14-16-18 Alkyl	0.100 mg/l (fw)	4266.16 mg/kg	852.58 mg/kg soil		100 mg/l	
phenol***	0.010 mg/l (mw)	sediment dw (fw)	dw			
٨	1 mg/ (or)	426.62 mg/kg				
		sediment dw				
		(mw)				



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

8.2. Exposure controls

Occupational Exposure Controls

Engineering measures

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.***

Personal protective equipment

General Information

Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product AS DELIVERED. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.***

Respiratory protection

None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P1. Warning! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.***

Eye protection

If splashes are likely to occur, wear:. Safety glasses with side-shields. EN 166.***

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Type 4/6.***

Hand protection

Hydrocarbon-proof gloves. Fluorinated rubber. Nitrile rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.***

Environmental exposure controls

General Information

The product should not be allowed to enter drains, water courses or the soil.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Colour Physical state @20°C Odour Clear***
yellow***
liquid***
characteristic***



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

Odour Threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks</u> <u>Method</u>

pH Not applicable***

Melting point/range No information available

Boiling point/boiling range

No information available***

 Flash point ***
 220*** °C***
 Cleveland Open Cup (COC)***

 428*** °F***
 Cleveland Open Cup (COC)***

Evapouration rate

No information available***

Flammability Limits in Air

No information available***

Vapour pressure

No information available***

Vapour density
Relative density
*** 0.850***

No information available***
@ 15 °C***

Density

850*** kg/m³***

Water solubility

0.850

© 15 °C

Insoluble

Insoluble

Solubility in other solvents

No information available***

logPow
No information available***
Autoignition temperature
No information available***

Decomposition temperature

Viscosity, kinematic ***

No information available

56*** mm2/s***

@ 40 °C ***

ISO 3104 ***

Explosive properties
Oxidising properties
Not explosive***
Not applicable***

Possibility of hazardous reactions None under normal processing***

9.2. Other information

Freezing point No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

General Information None under normal processing.***

10.2. Chemical stability

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions No dangerous reaction known under conditions of normal use.***

10.4. Conditions to avoid



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat

and sparks.***

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.***

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as

carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Phosphorous oxides. Nitrogen oxides (NOx). Mercaptans. Combustion products include sulphur oxides (

SO2 and SO3) and Hydrogen sulphide H2S. Zinc oxides.***

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity Local effects Product Information

Skin contact . Not classified based on available data. May produce an allergic reaction.***

Eye contact . Not classified based on available data.***

Inhalation . Not classified based on available data. Inhalation of vapours in high concentration may

cause irritation of respiratory system.***

Ingestion . Not classified based on available data. Ingestion may cause gastrointestinal irritation,

nausea, vomiting and diarrhoea.***

ATEmix (oral) 7,915.00*** mg/kg***

ATEmix (dermal) 7,752.00*** mg/kg***

ATEmix (inhalation-gas) > 20,000.00*** ppm***
ATEmix (inhalation-dust/mist) 7.90*** mg/l***

ATEmix (inhalation-vapour) > 20.00*** mg/l***

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Lubricating oils (petroleum), C20-50,	LD50 > 5000 mg/kg bw (rat -	LD50 > 5000 mg/kg bw (rabbit -	LC50 (4h) > 5 mg/l (aerosol) (rat -
hydrotreated neutral oil-based***	OECD 401)	OECD 402)	OECD 403)
Distillates (petroleum), hydrotreated heavy	LD50 > 5000 mg/kg bw (rat -	LD50 > 5000 mg/kg bw (rabbit -	LC50 (4h) > 5 mg/l (aerosol) (rat -
paraffinic***	OECD 420)	OECD 402)	OECD 403)
bis(nonylphenyl)amine***	LD50 > 5000 mg/kg (Rat - OECD	LD50 > 2000 mg/kg (Rat - OECD	
	401)	402)	
C14-16-18 Alkyl phenol***	LD50 2000 mg/kg bw (rat)	LD50 2000 mg/kg bw (rat)	

Sensitisation



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

Sensitisation

Not classified based on available data. The supplier of one of the components contained within this formulation has indicated that they have data, which confirms that at the concentration used, no sensitisation classification is required. Contains senitizer(s). May

produce an allergic reaction.***

Specific effects

Carcinogenicity Not classified based on available data. During use in engines, contamination of oil with low

levels of combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil

is thoroughly removed by washing with soap and water.***

Mutagenicity

Germ cell mutagenicity Not classified based on available data.***

Reproductive toxicity

Not classified based on available data.***

Repeated dose toxicity

Target Organ Effects (STOT)

Specific target organ systemic toxicity (single exposure)

Not classified based on available data.***

Specific target organ toxicity -

repeated exposure

Not classified based on available data.***

Aspiration toxicity Not classified based on available data.***

Other information

Other adverse effects Characteristic skin lesions (oil blisters) may develop following prolonged and repeated

exposures (contact with contaminated clothing).***

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Not classified based on available data.***

Acute aquatic toxicity - Product Information***

No information available.***

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic	Toxicity to fish	Toxicity to microorganisms
		invertebrates.		
Lubricating oils (petroleum),	EL50 (48h) > 100 mg	EL50 (48h) > 10000 mg/l	LL50 (96h) > 100 mg/l	
C20-50, hydrotreated neutral	(Pseudokirchnerella	(Daphnia magna - OECD	(Oncorhynchus mykiss -	



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

oil-based*** 72623-87-1	subcapitata - OECD 201)	202) LL50 (24h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (48h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (72h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (96h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (96h) > 10000 mg/l (Gammarus pulex - OECD 202)	OECD 203)	
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7	EL50 (48h) > 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	
bis(nonylphenyl)amine*** 36878-20-3	EC50 (72h) > 100 mg/l (Desmodesmus subspicatus - OECD 201)	EC50 (48h) > 100 mg/l (Daphnia magna - OECD 202)	LC50 (96h) > 100 mg/l (Brachyanio rerio - OECD 203)	
C14-16-18 Alkyl phenol***		EC50(48h) > 100 mg/l (Daphnia magna - static - OECD202)		

Chronic aquatic toxicity - Product Information

No information available.***

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1	NOEL (72h) >= 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	NOEL (21d) 10 mg/l (Daphnia magna - OECD 211)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox) NOEL (96h) > 100 mg/l (Pimephales promelas - OECD 203)	
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7		NOEL (21d) 10 mg/l (Daphnia magna - QSAR Petrotox)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	

Effects on terrestrial organisms

No information available.***

12.2. Persistence and Degradability

General Information

No information available.

12.3. Bioaccumulative potential



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

Product Information No information available.***

logPow No information available***

Component Information

Chemical Name	log Pow
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** -	4.1
72623-87-1	
Distillates (petroleum), hydrotreated heavy paraffinic*** - 64742-54-7	-
bis(nonylphenyl)amine*** - 36878-20-3	7.7

12.4. Mobility in soil

Soil Given its physical and chemical characteristics, the product generally shows low soil

mobility.***

Air Loss by evaporation is limited.***

Water The product is insoluble and floats on water.***

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.***

12.6. Other adverse effects

General Information No information available.***

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused

products

Should not be released into the environment. Do not empty into drains. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Where possible recycling is preferred to disposal or

incineration.***

Contaminated packageing Empty containers should be taken to an approved waste handling site for recycling or

disposal.***

EWC Waste Disposal No According to the European Waste Catalogue, Waste Codes are not product specific, but

application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions:. 13 02

05.***

Other information Refer to section 8 for safety and protective measures for disposal personnel.***

Section 14: TRANSPORT INFORMATION



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

ADR/RID not regulated

IMDG/IMO not regulated

ICAO/IATA not regulated

ADN not regulated

Section 15: REGULATORY INFORMATION

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

European Union

Further information

No information available***

15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available***

15.3. National regulatory information

The United Kingdom

• Avoid exceeding occupational exposure limits (see section 8).

<u>Ireland</u>

Avoid exceeding occupational exposure limits (see section 8).

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H304 - May be fatal if swallowed and enters airways

H317 - May cause an allergic skin reaction

H373 - May cause damage to organs through prolonged or repeated exposure

H413 - May cause long lasting harmful effects to aquatic life***

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists bw = body weight



QUARTZ 9000 FUTURE NFC 5W-30

Revision Date: 2018-02-01 Version 4

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

dw = dry weight fw = fresh water mw = marine water or = occasional release

Legend Section 8

TWA: Time Weight Average STEL: Short Time Exposure Limit

+ Sensitiser * Skin designation
** Hazard Designation C: Carcinogen

M: Mutagen R: Toxic to reproduction

Revision Date: 2018-02-01

Revision Note *** Indicates updated section.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of Safety Data Sheet