

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Revision date 17-Oct-2023

Revision Number 1

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

1.1. Product identifier

Product Code(s) 123518
Safety data sheet number 123518
Product Name PETRONAS SYNTIUM 5000 FR 5W 20
Pure substance/mixture Mixture

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

Recommended use Engine oil

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified

2.2. Label elements

Not classified

Hazard statements

Not classified
EUH208 - May produce an allergic reaction.

EUH210 - Safety data sheet available on request

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
 41 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
 41 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).
 41 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Unknown aquatic toxicity

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC 64742-54-7	0 - 10%	265-157-1 (649-467-00-8)	-	Asp. Tox. 1 (H304)	-	-	-
PHENOL, 2,2'-POLYTHIOBIS[4-C8-30-ALKYL DERIVS., CALCIUM SALTS, OVERBASED 90480-91-4	0 - 10%	291-829-9	-	Aquatic Chronic 4 (H413)	-	-	-
2,6 DI TERT BUTYLPHENOL 128-39-2	0 - 10%	204-884-0	-	Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Skin Irrit. 2 (H315)	-	-	-
PHENOL DODECYL, BRANCHED 121158-58-5	0 - 10%	310-154-3	-	Skin Corr. 1C (H314) Eye Dam. 1 (H318) Repr. 1B (H360F) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	10	10
MALEIC ANHYDRIDE 108-31-6	0 - 10%	203-571-6	-	(EUH071) Acute Tox. 4 (H302) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Resp. Sens. 1 (H334) Skin Sens. 1A (H317) STOT RE 1 (H372)	Skin Sens. 1A :: C>=0.001%	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move victim to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Rinse mouth.

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

Dermal	May cause allergic skin reaction.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Carbon oxides. Oxides of sulphur. Phosphorus oxides. Nitrogen oxides (NOx).
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5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes and inhalation of vapours. Ensure adequate ventilation.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Collect with absorbent, non-combustible material into suitable containers. Flush area with flooding quantities of water. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes and inhalation of vapours. Ensure adequate ventilation.

General hygiene considerations Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Specific use(s)

See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	United Kingdom
MALEIC ANHYDRIDE 108-31-6	TWA: 1 mg/m ³ STEL: 3 mg/m ³ Sen+

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC 64742-54-7		0.97 mg/kg bw/day [4] [6]	5.4 mg/m ³ [5] [6]
2,6 DI TERT BUTYLPHENOL 128-39-2		11.25 mg/kg bw/day [4] [6]	70.61 mg/m ³ [4] [6]
PHENOL DODECYL, BRANCHED 121158-58-5		0.25 mg/kg/day	1.7621 mg/m ³ [6]
MALEIC ANHYDRIDE 108-31-6			0.4 mg/m ³ [5] [6]

[4] Systemic health effects.
 [5] Local health effects.
 [6] Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC 64742-54-7	0.74 mg/kg bw/day [4] [6]		1.2 mg/m ³ [5] [6]
2,6 DI TERT BUTYLPHENOL 128-39-2	6.75 mg/kg bw/day [4] [6]		20.9 mg/m ³ [4] [6]
PHENOL DODECYL, BRANCHED 121158-58-5	0.075 mg/kg bw/day [4] [6] 1.26 mg/kg bw/day [4] [7]	50 mg/kg bw/day [4] [6] 50 mg/kg bw/day [4] [7]	0.79 mg/m ³ [4] [6] 13.26 mg/m ³ [4] [7]

[4] Systemic health effects.
 [5] Local health effects.
 [6] Long term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
PHENOL DODECYL, BRANCHED 121158-58-5	0.074 µg/L	0.37 µg/L	0.0074 µg/L		
MALEIC ANHYDRIDE 108-31-6	0.1 mg/l				

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC 64742-54-7					9.33 mg/kg food
PHENOL DODECYL, BRANCHED 121158-58-5	0.226 mg/kg	0.0226 mg/kg	100 mg/L	0.118 mg/kg soil dw	4 mg/kg food

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
MALEIC ANHYDRIDE 108-31-6	0.334 mg/kg/day	0.033 mg/kg/day		0.042 mg/kg/day	44.6 mg/l

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
	Wear protective nitrile rubber gloves Wear protective Neoprene™ gloves		

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state Liquid
Appearance Viscous liquid
Colour amber
Odour No information available.
Odour threshold No information available

Property	Values	Remarks • Method
Melting point / freezing point		No information available
Initial boiling point and boiling range	> 300.00 °C	
Flammability		No information available
Flammability Limit in Air		No information available
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	218 °C	No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
pH		No information available
pH (as aqueous solution)		No information available
Kinematic viscosity	43.00	40 °C
Dynamic viscosity		No information available
Water solubility	Immiscible in water	No information available

Solubility(ies)		No information available
Partition coefficient		No information available
Vapour pressure		No information available
Relative density	0.86	No information available
Bulk density		
Liquid Density		
Relative vapour density		No information available
Particle characteristics		No information available
Particle Size		
Particle Size Distribution		
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable under recommended storage conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Stable under normal conditions.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx). Phosphorus oxides. Hydrogen sulphide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation May cause irritation.

Eye contact May cause temporary eye irritation.

Skin contact Allergic reactions (sensitiser).

Ingestion Gastrointestinal discomfort.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	36,585.40	mg/kg
ATEmix (dermal)	12,195.10	mg/kg
ATEmix (inhalation-gas)	99,999.00	ppm
ATEmix (inhalation-vapour)	99,999.00	mg/l
ATEmix (inhalation-dust/mist)	99,999.00	mg/l

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

41 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

41 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).

41 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	> 15 g/kg (Rat)	> 5000 mg/kg (Rabbit)	-
2,6 DI TERT BUTYLPHENOL	> 5000 mg/kg (Rat)	> 10 g/kg (Rabbit)	-
PHENOL DODECYL, BRANCHED	-	= 15000 mg/kg (Rabbit)	-
MALEIC ANHYDRIDE	= 235 mg/kg (Rat)	= 2620 mg/kg (Rabbit)	= 0.16 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Reproductive toxicity No information available.

Chemical name	United Kingdom
PHENOL DODECYL, BRANCHED	Repr. 1B

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Not considered to be harmful to aquatic life.

Unknown aquatic toxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	-	LC50: >5000mg/L (96h, <i>Oncorhynchus mykiss</i>)	-	EC50: >1000mg/L (48h, <i>Daphnia magna</i>)
2,6 DI TERT BUTYLPHENOL	-	-	-	EC50: =0.45mg/L (48h, <i>Daphnia magna</i>)
PHENOL DODECYL, BRANCHED	-	LC50: =0.14mg/L (96h, <i>Oncorhynchus clarki</i>)	-	-
MALEIC ANHYDRIDE	EC50: =29mg/L (72h, <i>Desmodesmus subspicatus</i>)	LC50: =75mg/L (96h, <i>Oncorhynchus mykiss</i>)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Chemical name	Partition coefficient
2,6 DI TERT BUTYLPHENOL	4.5
PHENOL DODECYL, BRANCHED	7.14
MALEIC ANHYDRIDE	-2.36

12.4. Mobility in soil

Mobility in soil Insoluble.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	The substance is not PBT / vPvB

2,6 DI TERT BUTYLPHENOL	The substance is not PBT / vPvB
PHENOL DODECYL, BRANCHED	The substance is not PBT / vPvB
MALEIC ANHYDRIDE	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	Not regulated
14.2	
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC - 64742-54-7	Use restricted. See item 28. Restricted Carcinogen 1B	-
PHENOL DODECYL, BRANCHED - 121158-58-5	Use restricted. See item 30. Restricted Reproductive Toxin 1B	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report

No information available

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H304 - May be fatal if swallowed and enters airways

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note ***Indicates updated data since last publication

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Revision date 17-Oct-2023

**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet