According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS Number:	Date of last issue: 11.04.2023
5.2	01.06.2023	800001015495	Print Date 02.06.2023

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

#### **1.1 Product identifier**

Trade name	: AeroShell Turbine Oil 555
Product code	: 001A0084

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

Use of the Sub- stance/Mixture		craft turbine engines., For further Book on www.shell.com/aviation.
Uses advised against	nce with the requirements of anuals, bulletins and other d his product must not be used	andled, and applied in accord- the equipment manufacturer's locumentation. I in applications other than those seeking the advice of the sup-

#### 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
Telefax	(+44) 08007318888 If you have any enquiries about the content of this SDS please email lubricantSDS@shell.com

1.4 Emergency telephone number

: +44 (0) 20 7934 7778 (This telephone number is available 24 hours per day, 7 days per week)

## **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

## Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 3 H412: Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version 5.2	Revision Date: 01.06.2023		umber: 015495	Date of last issue: 11.04.2023 Print Date 02.06.2023	
Hazard pictograms Signal word			<ul> <li>No Hazard Symbol required</li> <li>No signal word</li> </ul>		
Haza	rd statements	: crite H41	Not classi ria. HEALTH I Not classi ENVIRON	L HAZARDS: fied as a physical hazard according to CLP HAZARDS: fied as a health hazard under CLP criteria. IMENTAL HAZARDS: a aquatic life with long lasting effects.	
Preca	autionary statements	•	v <b>ention:</b> 3 Avoid rele	ase to the environment.	
		Res	ponse:		
			No precau	itionary phrases.	
		Stor	age:		
			No precau	itionary phrases.	
		Disp	osal:		
		P50 disp	1 Dispose o osal plant.	f contents/ container to an approved waste	
Sensitising components				lkyl amine phosphate. allergic reaction.	

## 2.3 Other hazards

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

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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 : Blend of synthetic esters and additives.

Components	
Chemical name	

CAS-No. Classification Concentration

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS Number:
5.2	01.06.2023	800001015495

Date of last issue: 11.04.2023 Print Date 02.06.2023

	EC-No. Index-No. Registration number		(% w/w)
Aryl amine	51772-35-1 257-406-8	Aquatic Chronic 4; H413	1 - 3
Triaryl phosphate	1330-78-5 215-548-8	Repr. 2; H361f Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	0.25 - 0.99
Chloroalkyl amine phosphate	79357-73-6 279-138-0	Skin Corr. 1B; H314 STOT SE 3; H335 Skin Sens. 1; H317	0.1 - 0.99

For explanation of abbreviations see section 16.

## **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

Drotaction of first siders		When a desirate sing first and an avera that you are wearing the
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 wa- ter and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
In case of eye contact	:	Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. If persistent irritation occurs, obtain medical attention.
If swallowed	:	In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

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

Symptoms	:	Oil acne/folliculitis signs and symptoms may include formation	
		of black pustules and spots on the skin of exposed areas.	

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Versio 5.2	on	Revision Date: 01.06.2023	-	0S Number: 0001015495	Date of last issue: 11.04.2023 Print Date 02.06.2023
				Ingestion may res	ult in nausea, vomiting and/or diarrhoea.
4.3 In	ndicatio	on of any immediate	med	dical attention and	I special treatment needed
Т	Treatm	ent	:	Notes to doctor/p Treat symptomati	
SEC	TION	5: Firefighting meas	sur	es	
5.1 E	xtingu	ishing media			
5	Suitable	e extinguishing media	:		y or fog. Dry chemical powder, carbon diox- may be used for small fires only.
Unsuitable extinguishing media		:	Do not use water in a jet.		
5.2 Sj	pecial	hazards arising from	the	e substance or mi	xture
	Specific ighting	e hazards during fire-	:	A complex mixtur gases (smoke). Carbon monoxide occurs.	ustion products may include: e of airborne solid and liquid particulates and may be evolved if incomplete combustion nic and inorganic compounds.
5.3 A	dvice f	or firefighters			
	Special for firefi	protective equipment ghters	:	gloves are to be v large contact with Breathing Appara a confined space.	equipment including chemical resistant vorn; chemical resistant suit is indicated if spilled product is expected. Self-Contained tus must be worn when approaching a fire in Select fire fighter's clothing approved to s (e.g. Europe: EN469).
	Specific ods	extinguishing meth-	:		measures that are appropriate to local cir- he surrounding environment.

## **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	<ul><li>6.1.1 For non emergency personnel:</li><li>Avoid contact with skin and eyes.</li><li>6.1.2 For emergency responders:</li><li>Avoid contact with skin and eyes.</li></ul>
		Avoid contact with skin and eyes.

## 6.2 Environmental precautions

Environmental precautions	:	Use appropriate containment to avoid environmental contami-
		nation. Prevent from spreading or entering drains, ditches or
		rivers by using sand, earth, or other appropriate barriers.

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS Number:	Date of last issue: 11.04.2023
5.2	01.06.2023	800001015495	Print Date 02.06.2023

## 6.3 Methods and material for containment and cleaning up

Pr or Re Sc	ppery when spilt. Avoid accidents, clean up immediately. event from spreading by making a barrier with sand, earth other containment material. claim liquid directly or in an absorbent. ak up residue with an absorbent such as clay, sand or other itable material and dispose of properly.
----------------------	--

## 6.4 Reference to other sections

For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet., For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

## **SECTION 7: Handling and storage**

7.1 Precautions for safe handlin	g
Technical measures	: 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.
Advice on safe handling	<ul> <li>Avoid prolonged or repeated contact with skin.</li> <li>Avoid inhaling vapour and/or mists.</li> <li>When handling product in drums, safety footwear should be worn and proper handling equipment should be used.</li> <li>Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.</li> </ul>
Product Transfer	<ul> <li>Proper grounding and bonding procedures should be used during all bulk transfer operations to avoid static accumulation.</li> </ul>
Hygiene measures	: Exposure to this product should be reduced as low as reason- ably practicable. Reference should be made to the Health and Safety Executive's publication "COSHH Essentials".
7.2 Conditions for safe storage,	including any incompatibilities
Further information on stor- age stability	<ul> <li>Keep container tightly closed and in a cool, well-ventilated place.</li> <li>Use properly labeled and closable containers.</li> <li>Store at ambient temperature.</li> </ul>
	Refer to section 15 for any additional specific legislation cov- ering 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 guid

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version 5.2	Revision Date: 01.06.2023	SDS Number: 800001015495	Date of last issue: 11.04.2023 Print Date 02.06.2023
Packa	iging material		l: For containers or container linings, use mild isity polyethylene. rial: PVC.
Conta	iner Advice		ntainers should not be exposed to high tem- se of possible risk of distortion.

## 7.3 Specific end use(s)

## **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

## Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Oil mist, mineral	Not As- signed	TWA (inhalable fraction)	5 mg/m3	US. ACGIH Threshold Limit Values
Oil mist, mineral		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH

#### **Biological occupational exposure limits**

#### 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

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.

According to EC No 1907/2006 as amended as at the date of this SDS

Version 5.2	Revision Date: 01.06.2023	SDS Number: 800001015495	Date of last issue: 11.04.2023 Print Date 02.06.2023
	onal protective equipm suppliers.	ent (PPE) should mee	et recommended national standards. Check with
Еуе р	protection	protective eyev	andled such that it could be splashed into eyes, wear is recommended. U Standard EN166.
Hand	l protection		
R	emarks	gloves approve US: F739) mad suitable chemi gloves Suitabil usage, e.g. fre sistance of glo glove suppliers Personal hygie Gloves must o gloves, hands cation of a non For continuous through time o 480 minutes w short-term/spla recognize that may not be ava time maybe ac and replaceme a good predicte dependent on Glove thicknes	ontact with the product may occur the use of ed to relevant standards (e.g. Europe: EN374, de from the following materials may provide cal protection. PVC, neoprene or nitrile rubber ity and durability of a glove is dependent on quency and duration of contact, chemical re- ve material, dexterity. Always seek advice from a. Contaminated gloves should be replaced. one is a key element of effective hand care. Inly be worn on clean hands. After using should be washed and dried thoroughly. Appli- perfumed moisturizer is recommended. a contact we recommend gloves with break- f more than 240 minutes with preference for > here suitable gloves can be identified. For ash protection we recommend the same but suitable gloves offering this level of protection ailable and in this case a lower breakthrough ceptable so long as appropriate maintenance ent regimes are followed. Glove thickness is not or of glove resistance to a chemical as it is the exact composition of the glove material. Is should be typically greater than 0.35 mm the glove make and model.
Skin	and body protection	work clothes.	is not ordinarily required beyond standard ice to wear chemical resistant gloves.
Resp	iratory protection	conditions of u In accordance tions should be If engineering of tions to a level select respirato cific conditions Check with res Where air-filter priate combina Select a filter s	protection is ordinarily required under normal se. with good industrial hygiene practices, precau- e taken to avoid breathing of material. controls do not maintain airborne concentra- which is adequate to protect worker health, ory protection equipment suitable for the spe- of use and meeting relevant legislation. piratory protective equipment suppliers. ing respirators are suitable, select an appro- tion of mask and filter. uitable for combined particulate/organic gases Type A/Type P boiling point > 65°C (149°F)]

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS Number:	Date of last issue: 11.04.2023
5.2	01.06.2023	800001015495	Print Date 02.06.2023

meeting EN14387 and EN143.

## **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties					
Physical state	:	Liquid at room temperature.			
Colour	:	Various colours			
Odour	:	Slight hydrocarbon			
Odour Threshold	:	Data not available			
pour point	:	<= -60 °C Method: ASTM D97			
Melting / freezing point		Data not available			
Initial boiling point and boiling range	:	> 280 °Cestimated value(s)			
Flammability					
Flammability (solid, gas)	:	Not applicable			
Flammability (liquids)	:	Not classified as flammable but will burn.			
Lower explosion limit and uppe	er ez	xplosion limit / flammability limit			
Upper explosion limit / upper flammability limit	:	Typical 10 %(V)			
Lower explosion limit / Lower flammability limit	:	Typical 1 %(V)			
Flash point	:	>= 246 °C Method: ASTM D92 (COC)			
Auto-ignition temperature	:	> 320 °C			
Decomposition temperature Decomposition tempera- ture	:	Data not available			
рН	:	Not applicable			
Viscosity Viscosity, dynamic	:	Data not available			
Viscosity, kinematic	:	11000 mm2/s (-40 °C) Method: ASTM D2532			

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Versi 5.2	ion	Revision Date: 01.06.2023		S Number: 0001015495	Date of last issue: 11.04.2023 Print Date 02.06.2023
				26.5 mm2/s (37.8 Method: ASTM D 5.2 mm2/s (100 ° Method: ASTM D	9445 °C)
		er solubility	:	negligible Data not availabl	
		ubility in other solvents n coefficient: n- /water		log Pow: > 6	e ation on similar products)
		pressure	:		
	Relativ	e density	:	0.993 (15.6 °C)	
	Density	/	:	993 kg/m3 (15.6 Method: Unspeci	
	Relativ	e vapour density	:	> 1 estimated value(	s)
		e characteristics icle size	:	Data not availabl	e
	<b>)ther ir</b> Explosi	formation ves	:	Classification Co	de: Not classified
	Oxidiziı	ng properties	:	Data not availabl	e
	Flamm	ability (liquids)	:	Not classified as	flammable but will burn.
	Evapor	ation rate	:	Data not availabl	e
	Conduc	ctivity	:	This material is n	ot expected to be a static accumulator.

## **SECTION 10: Stability and reactivity**

## 10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

## 10.2 Chemical stability

Stable.

No hazardous reaction is expected when handled and stored according to provisions

According to EC No 1907/2006 as amended as at the date of this SDS

Version 5.2	Revision Date: 01.06.2023	SDS Number: 800001015495	Date of last issue: 11.04.2023 Print Date 02.06.2023
	ibility of hazardous		trong ovidiaing aganta
nazai	dous reactions	. Reacts with s	trong oxidising agents.
10.4 Cond	litions to avoid		
Condi	itions to avoid	: Extremes of t	emperature and direct sunlight.
	npatible materials		
Mater	ials to avoid	: Strong oxidisi	ng agents.
	rdous decompositio	n products and applied as directe	ed.
SECTION	I 11: Toxicological	information	
11.1 Inform	mation on hazard cla	asses as defined in F	Regulation (EC) No 1272/2008
Inform expos			contact are the primary routes of exposure alt- re may occur following accidental ingestion.
Acute	e toxicity		
<u>Produ</u> Acute	<u>uct:</u> oral toxicity	: LD50 (rat): > 5 Remarks: Low Based on avai	
Acute	inhalation toxicity	: Remarks: Bas are not met.	ed on available data, the classification criteria
Acute	dermal toxicity		: > 5,000 mg/kg
		Remarks: Low Based on avai	toxicity lable data, the classification criteria are not met.
Skin	corrosion/irritation		
Produ	uct:		
Rema		can clog the p acne/folliculitis	epeated skin contact without proper cleaning ores of the skin resulting in disorders such as oi
		Based on avai	lable data, the classification criteria are not met.
Serio	us eye damage/eye i	irritation	
<u>Produ</u>	uct:		
Rema	urks	: Slightly irritatir Based on avai	ng to the eye. lable data, the classification criteria are not met.

According to EC No 1907/2006 as amended as at the date of this SDS

Respiratory or skin sensitisation         Product:         Remarks       :         For respiratory and skin sensitisation: Not a sensitiser. Based on available data, the classification criteria and         Components:         Chloroalkyl amine phosphate: Remarks         Remarks       :         May cause an allergic skin reaction in sensitive indiv         Germ cell mutagenicity         Product: Genotoxicity in vivo       :         Remarks:       Non mutagenic Based on available data, the classification criteria and Based on available data, the classification criteria and Germ cell mutagenicity- As- sessment         Carcinogenicity       :         Product: Remarks       :         Carcinogenicity       :         Product: Remarks       :         Carcinogenicity       :         Product: Remarks       :         Carcinogenicity       :         Material       GHS/CLP Carcinogenicity Classification         Material       GHS/CLP Carcinogenicity Classification         Highly refined mineral oil       No carcinogenicity classification.	ersion 2	Revision Date: 01.06.2023		DS Number: 0001015495	Date of last issue: 11.04.2023 Print Date 02.06.2023
Remarks       : For respiratory and skin sensitisation: Not a sensitiser. Based on available data, the classification criteria and Components: Chloroalkyl amine phosphate: Remarks         Chloroalkyl amine phosphate: Remarks       : May cause an allergic skin reaction in sensitive indiv         Germ cell mutagenicity       : May cause an allergic skin reaction in sensitive indiv         Germ cell mutagenicity       : Remarks: Non mutagenic Based on available data, the classification criteria and categories 1A/1B.         Carcinogenicity       : This product does not meet the criteria for classification categories 1A/1B.         Carcinogenicity - Assess- ment       : Not a carcinogen. Based on available data, the classification criteria and categories 1A/1B.         Material       GHS/CLP Carcinogenicity Classification	Resp	piratory or skin sensitis	satio	on	
Remarks       : For respiratory and skin sensitisation: Not a sensitiser. Based on available data, the classification criteria and Components: Chloroalkyl amine phosphate: Remarks         Chloroalkyl amine phosphate: Remarks       : May cause an allergic skin reaction in sensitive indiv         Germ cell mutagenicity       : May cause an allergic skin reaction in sensitive indiv         Germ cell mutagenicity       : Remarks: Non mutagenic Based on available data, the classification criteria and categories 1A/1B.         Carcinogenicity       : This product does not meet the criteria for classification categories 1A/1B.         Carcinogenicity - Assess- ment       : Not a carcinogen. Based on available data, the classification criteria and categories 1A/1B.         Material       GHS/CLP Carcinogenicity Classification	Prod	uct:			
Chloroalkyl amine phosphate:       May cause an allergic skin reaction in sensitive indiv         Germ cell mutagenicity       Product:         Genotoxicity in vivo       :       Remarks: Non mutagenic         Germ cell mutagenicity- Assessment       :       This product does not meet the criteria for classification criteria are categories 1A/1B.         Carcinogenicity       Product:       :       Not a carcinogen.         Remarks       :       Not a carcinogen.       Based on available data, the classification criteria are categories 1A/1B.         Material       GHS/CLP Carcinogenicity Classification			:	Not a sensitiser	
Remarks       : May cause an allergic skin reaction in sensitive indiv         Germ cell mutagenicity       Product:         Genotoxicity in vivo       : Remarks: Non mutagenic         Based on available data, the classification criteria are         Germ cell mutagenicity- As-       : This product does not meet the criteria for classification         Germ cell mutagenicity- As-       : This product does not meet the criteria for classification         Carcinogenicity       Product:         Remarks       : Not a carcinogen.         Based on available data, the classification criteria are         Carcinogenicity       : This product does not meet the criteria for classification         Carcinogenicity - Assess-       : This product does not meet the criteria for classification         Carcinogenicity - Assess-       : This product does not meet the criteria for classification         Material       GHS/CLP Carcinogenicity Classification	Com	ponents:			
Germ cell mutagenicity         Product:         Genotoxicity in vivo       : Remarks: Non mutagenic Based on available data, the classification criteria are Germ cell mutagenicity- As- sessment         Germ cell mutagenicity- As- sessment       : This product does not meet the criteria for classificat categories 1A/1B.         Carcinogenicity       : Not a carcinogen. Based on available data, the classification criteria are carcinogenicity - Assess- ment         Carcinogenicity - Assess- ment       : This product does not meet the criteria for classificat categories 1A/1B.         Material       GHS/CLP Carcinogenicity Classification	Chlo	roalkyl amine phospha	ite:		
Product: Genotoxicity in vivo: Remarks: Non mutagenic Based on available data, the classification criteria are Based on available data, the classification criteria are categories 1A/1B.Germ cell mutagenicity- As- sessment: This product does not meet the criteria for classificat categories 1A/1B.CarcinogenicityProduct: Based on available data, the classification criteria are Based on available data, the classification criteria are Based on available data, the classification criteria are carcinogenicity - Assess- ment: Not a carcinogen. Based on available data, the classification criteria are categories 1A/1B.MaterialGHS/CLP Carcinogenicity Classification	Rema	arks	:	May cause an a	Illergic skin reaction in sensitive individuals.
Genotoxicity in vivo       : Remarks: Non mutagenic Based on available data, the classification criteria are categories 1A/1B.         Germ cell mutagenicity- As- sessment       : This product does not meet the criteria for classificat categories 1A/1B.         Carcinogenicity       : This product does not meet the criteria for classificat categories 1A/1B.         Product: Remarks       : Not a carcinogen. Based on available data, the classification criteria are categories 1A/1B.         Carcinogenicity - Assess- ment       : This product does not meet the criteria for classificat categories 1A/1B.         Material       GHS/CLP Carcinogenicity Classification	Germ	n cell mutagenicity			
Based on available data, the classification criteria are         Germ cell mutagenicity- As-         sessment         Carcinogenicity         Product:         Remarks         :       Not a carcinogen.         Based on available data, the classification criteria are         Carcinogenicity         Product:         Remarks         :       Not a carcinogen.         Based on available data, the classification criteria are         Carcinogenicity - Assess-         ment         :       This product does not meet the criteria for classification criteria are         Carcinogenicity - Assess-         :       This product does not meet the criteria for classification         Material       GHS/CLP Carcinogenicity Classification	Prod	uct:			
sessment       categories 1A/1B.         Carcinogenicity       Product:         Remarks       : Not a carcinogen. Based on available data, the classification criteria are         Carcinogenicity - Assess- ment       : This product does not meet the criteria for classificat categories 1A/1B.         Material       GHS/CLP Carcinogenicity Classification	Geno	otoxicity in vivo	:		
Product:       Remarks       : Not a carcinogen. Based on available data, the classification criteria are carcinogenicity - Assess- ment       : This product does not meet the criteria for classificat categories 1A/1B.         Material       GHS/CLP Carcinogenicity Classification			:		
Remarks       : Not a carcinogen. Based on available data, the classification criteria are carcinogenicity - Assess- ment         Carcinogenicity - Assess- ment       : This product does not meet the criteria for classificat categories 1A/1B.         Material       GHS/CLP Carcinogenicity Classification	Carci	inogenicity			
Carcinogenicity - Assessment       : This product does not meet the criteria for classification criteria for classification         Material       GHS/CLP Carcinogenicity Classification	Prod	uct:			
ment     categories 1A/1B.       Material     GHS/CLP Carcinogenicity Classification	Rema	arks	:		
		• •	:		
Highly refined mineral oil No carcinogenicity classification.	Mate	rial	G	HS/CLP Carcino	genicity Classification
	Highl	y refined mineral oil	N	o carcinogenicity	classification.

Product:		
Effects on fertility	:	Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are not met.
Reproductive toxicity - As- sessment	:	This product does not meet the criteria for classification in categories 1A/1B.

According to EC No 1907/2006 as amended as at the date of this SDS

Versi 5.2	ion	Revision Date: 01.06.2023		DS Number: 0001015495	Date of last issue: 11.04.2023 Print Date 02.06.2023	
;	sтот -	single exposure				
-	<b>Produc</b> Remarl		:	Based on availab	le data, the classification criteria are not met.	
:	стот -	repeated exposure				
-	<b>Produc</b> Remarl		:	Based on available data, the classification criteria are not me		
	Aspira	tion toxicity				
-	<b>Produc</b> Not an		sed	on available data,	the classification criteria are not met.	
11.2	Inform	ation on other hazard	sk			
I	Endoc	rine disrupting prope	rtie	S		
-	<b>Produc</b> Assess		:	: The substance/mixture does not contain components consid- ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.		
I	Furthe	r information				
I	Produc	<u>::</u>				
I	Remarl	κs	:	lated during use. depend on use ar environment on d	Id be handled with caution and skin contact	
I	Remarl	۲S	:	Slightly irritating to	o respiratory system.	
ł	Remarl	۲S	:	Classifications by frameworks may o	other authorities under varying regulatory exist.	
I	Remarl	٢S	:		otherwise, the data presented is representa- t as a whole, rather than for individual com-	

According to EC No 1907/2006 as amended as at the date of this SDS

# **AeroShell Turbine Oil 555**

Version	Revision Date:	SDS Number:
5.2	01.06.2023	800001015495

Date of last issue: 11.04.2023 Print Date 02.06.2023

## **SECTION 12: Ecological information**

### 12.1 Toxicity

	<u>Product:</u> Toxicity to fish	:	Remarks: LL/EL/IL50 10-100 mg/l Harmful
	Toxicity to daphnia and other aquatic invertebrates	:	Remarks: LL/EL/IL50 10-100 mg/l Harmful
	Toxicity to algae/aquatic plants	:	Remarks: LL/EL/IL50 10-100 mg/l Harmful
	Toxicity to fish (Chronic tox- icity)	:	Remarks: Data not available
	Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: Data not available
	Toxicity to microorganisms	:	Remarks: Data not available
	Components:		
	Triaryl phosphate:		
	M-Factor (Acute aquatic tox- icity)	:	1
	M-Factor (Chronic aquatic toxicity)	:	1
12.	2 Persistence and degradabili	ity	
	Product:		
	Biodegradability	:	Remarks: Not readily biodegradable. Major constituents are inherently biodegradable, but contains com- ponents that may persist in the environment.
12.	3 Bioaccumulative potential		
	Product:		
	Bioaccumulation	:	Remarks: Contains components with the potential to bioaccumulate.
12.	4 Mobility in soil		
	Product:		
	Mobility	:	Remarks: Liquid under most environmental conditions., If it

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version 5.2	Revision Date: 01.06.2023	SDS Number: 800001015495	Date of last issue: 11.04.2023 Print Date 02.06.2023
		enters soil, it will a bile.	adsorb to soil particles and will not be mo-
		Remarks: Floats of	on water.
12.5 Result	s of PBT and vPvB as	sessment	
<u>Produc</u> Assess			s not contain any REACH registered sub- assessed to be a PBT or a vPvB
12.6 Endoc	rine disrupting prope	rties	
Produc Assess		have endocrine disr 57(f) or Commission	ture does not contain components considered to rupting properties according to REACH Article on Delegated regulation (EU) 2017/2100 or ation (EU) 2018/605 at levels of 0.1% or higher.
12.7 Other a	adverse effects		
Produc Addition mation	e <u>t:</u> nal ecological infor-	tion potential or glo Product is a mixture released to air in an of use. Poorly soluble mixt Causes physical fou Unless indicated of	ture. ling of aquatic organisms. herwise, the data presented is representative of ole, rather than for individual component(s).

## **SECTION 13: Disposal considerations**

2

## 13.1 Waste treatment methods

Product

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.

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. Waste arising from a spillage or tank cleaning should be dis-

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Versio 5.2	on	Revision Date: 01.06.2023		9S Number: 0001015495	Date of last issue: 11.04.2023 Print Date 02.06.2023
				to a recognised of collector or control Do not dispose of the collector or control of the collector of the c	rdance with prevailing regulations, preferably collector or contractor. The competence of the actor should be established beforehand. If tank water bottoms by allowing them to bund. This will result in soil and groundwater
				Pollution from Sh	nternational Convention for the Prevention of hips (MARPOL 73/78) which provides tech- controlling pollutions from ships.
C	Contam	inated packaging	:	to a recognized of the collector or c Disposal should	dance with prevailing regulations, preferably collector or contractor. The competence of ontractor should be established beforehand. be in accordance with applicable regional, al laws and regulations.
L	ocal le	gislation			
V	Vaste o	catalogue	:	EU Waste Dispo	sal Code (EWC):
V	Vaste (	Code	:	13 02 06*	
F	Remark	S	:		be in accordance with applicable regional, al laws and regulations.
				Classification of user.	waste is always the responsibility of the end
				Hazardous Wast	e (England and Wales) Regulations 2005.

## **SECTION 14: Transport information**

## 14.1 UN number or ID number

ADR	Not regulated	as a dangerous good
RID	Not regulated	as a dangerous good
IMDG IATA	0	as a dangerous good as a dangerous good

14.2 UN proper shipping name

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version 5.2	Revision Date: 01.06.2023	SDS Nu 8000010		Date of last issue: 11.04.2023 Print Date 02.06.2023
ADR		Not		
			U	a dangerous good
RID			•	a dangerous good
IMDG IATA				a dangerous good a dangerous good
14.3 Trans	port hazard class(es)			
ADR		: Not	regulated as a	a dangerous good
RID		: Not	regulated as a	a dangerous good
IMDG IATA			•	a dangerous good
14.4 Packi	na aroun	. NOL	egulated as a	a dangerous good
14.4 Facki	ng group			
ADR		: Not	regulated as a	a dangerous good
RID		: Not	regulated as a	a dangerous good
IMDG				a dangerous good
ΙΑΤΑ		: Not	regulated as a	a dangerous good
14.5 Envir	onmental hazards			
ADR		: Not	regulated as a	a dangerous good
RID		: Not	regulated as a	a dangerous good
IMDG		: Not	regulated as a	a dangerous good
14.6 Speci	al precautions for us	ər		
Rema	rks	for s	pecial precau	ns: Refer to Section 7, Handling & Storage, tions which a user needs to be aware of or with in connection with transport.

## 14.7 Maritime transport in bulk according to IMO instruments

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 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Not	applicable
REACH - List of substances subject to authorisation (Annex XIV)		luct is not subject to Authorisa- under REACH.
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	stan	product does not contain sub- ces of very high concern (Regu- n (EC) No 1907/2006 (REACH),

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS Number:	Date of last issue: 11.04.2023
5.2	01.06.2023	800001015495	Print Date 02.06.2023

Article 57).

Volatile organic compounds : Volatile organic compounds (VOC) content: 0 %

## Other regulations:

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

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) 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.

#### The components of this product are reported in the following inventories:

REACH	:	Not established.
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		
H314	:	Causes severe skin burns and eye damage.
H317	:	May cause an allergic skin reaction.
H335	:	May cause respiratory irritation.
H361f	:	Suspected of damaging fertility.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H413	:	May cause long lasting harmful effects to aquatic life.
Full text of other abbreviation	ons	
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Repr.	:	Reproductive toxicity
Skin Corr.	:	Skin corrosion
Skin Sens.	:	Skin sensitisation

According to EC No 1907/2006 as amended as at the date of this SDS

## AeroShell Turbine Oil 555

Version	Revision Date:	SDS Number:	Date of last issue: 11.04.2023
5.2	01.06.2023	800001015495	Print Date 02.06.2023
STOT ACGIH ACGIH			organ toxicity - single exposure Fhreshold Limit Values (TLV) eighted average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods: IMO - International Maritime Organization: ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### Further information

Training advice	:	Provide adequate information, instruction and training for operators.
Other information	:	A vertical bar ( ) in the left margin indicates an amendment from the previous version.
Sources of key data used to compile the Safety Data Sheet	:	The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).
Classification of the mixtur	e:	Classification procedure:
Aquatic Chronic 3	H4	12 Expert judgement and weight of evi-

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS Number:	Date of last issue: 11.04.2023
5.2	01.06.2023	800001015495	Print Date 02.06.2023
			dence determination.
	ified Uses according - Worker	<b>to the Use Descripto</b> : General use of le ery Industrial	or System ubricants and greases in vehicles or machin-
<b>Uses</b>	- Worker	: General use of le	ubricants and greases in vehicles or machin-
Title		ery Professiona	al

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.

GB / EN

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS
5.2	01.06.2023	80000

Number: Date of last is 01015495 Print Date 02.

Date of last issue: 11.04.2023 Print Date 02.06.2023

## Exposure Scenario - Worker 300000010724

SECTION 1	EXPOSURE SCENARIO TITLE
Title	General use of lubricants and greases in vehicles or machin- ery Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 8b, PROC 9 Environmental Release Categories: ERC4, ERC7, ATIEL- ATC SPERC 4.Bi.v1
Scope of process	Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

Section 2.1	Control of Worker Exposure
Product Characteristics	

## Contributing Scenarios Risk Management Measures

Section 2.2	Control of Environmental Exposure	9	
Amounts Used	•		
EU tonnage (tonnes per year)	):	2,631.1	
Fraction of EU tonnage used	in region:	0.1	
Fraction of Regional tonnage	used locally:	0.1	
Frequency and Duration of	Use		
Emission Days (days/year):		300	
Environmental factors not i	nfluenced by risk management		
Local freshwater dilution factor	or:	10	
Local marine water dilution fa	ctor:	100	
Other Operational Conditions affecting Environmental Exposure			
Negligible wastewater emission	ons as process operates without water		
contact.			
Release fraction to air from p	rocess (after typical onsite RMMs) :	5.00E-05	
Release fraction to wastewater from process (after typical onsite		2.00E-11	
RMMs and before (municipal)			
Release fraction to soil from process (after typical onsite RMMs):		0	
	easures at process level (source) to	prevent release	
	ss sites thus conservative process re-		
lease estimates used.			
	and measures to reduce or limit dis	scharges, air emis-	
sions and releases to soil			
Treat air emission to provide	a typical removal efficiency of (%)	70	

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS Number:	Date of last issue: 11.04.2023
5.2	01.06.2023	800001015495	Print Date 02.06.2023

Prevent discharge of undissolved substance to or recover from onsite wastewater.	
User sites are assumed to be provided with oil/water separators or	
equivalent and for waste water to be discharged via public sewer sys-	
tem.	
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
<b>.</b>	
Conditions and Measures related to municipal sewage treatment p	olant
Estimated substance removal from wastewater via domestic sewage	92.8
treatment (%)	
Assumed domestic sewage treatment plant flow (m3/d)	2.00E+03
Maximum allowable site quantity (MSafe) based on OCs and RMMs	1.24E+07
as above (kg/day) :	
Conditions and Measures related to external treatment of waste for	or disposal
External treatment and disposal of waste should comply with applicable	e local and/or regional
regulations.	C C
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable regulations.	e local and/or regional

#### **SECTION 3**

#### **EXPOSURE ESTIMATION**

Section 3.1 - Health

No exposure assessment presented for human health.

## Section 3.2 - Environment

Used ECETOC TRA model.

#### **SECTION 4**

# GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

#### Section 4.1 - Health

No exposure assessment presented for human health.

#### Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a sitespecific chemical safety assessment is required.

For further information see www.ATIEL.org/REACH\_GES.

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS
5.2	01.06.2023	8000

Number: 001015495

Date of last issue: 11.04.2023 Print Date 02.06.2023

#### Exposure Scenario - Worker 300000010725

00000010120	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	General use of lubricants and greases in vehicles or machin- ery Professional
Use Descriptor	Sector of Use: SU22
	Process Categories: PROC 1, PROC 2, PROC 8a, PROC 8b, PROC 20
	Environmental Release Categories: ERC9a, ERC9b, ATIEL-ATC SPERC 9.Bp.v1
Scope of process	Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

Control of Worker Exposure	Section 2.1
	Product Characteristics
	Froduct Characteristics

Contributing Scenarios Risk Management Measures

Section 2.2	Control of Environmental Exposure	
Amounts Used		
EU tonnage (tonnes per year):		5,387.2
Fraction of EU tonnage used in region:		0.1
Fraction of Regional tonnage used locally:		0.1
Frequency and Duration of	Use	
Emission Days (days/year):		365
<b>Environmental factors not</b>	influenced by risk management	
Local freshwater dilution factor:		10
Local marine water dilution factor:		100
Other Operational Conditio	ns affecting Environmental Exposure	9
Negligible wastewater emissi	ions as process operates without water	
contact.		
Release fraction to air from p	rocess (after typical onsite RMMs) :	
Release fraction to wastewater from process (after typical onsite		5.00E-04
RMMs and before (municipal		
Release fraction to soil from process (after typical onsite RMMs):		1E-03
Technical conditions and measures at process level (source) to prevent release		
Common practices vary acro	ss sites thus conservative process re-	
lease estimates used.		
Technical onsite conditions and measures to reduce or limit discharges, air emis- sions and releases to soil		

According to EC No 1907/2006 as amended as at the date of this SDS

# AeroShell Turbine Oil 555

Version	Revision Date:	SDS Number:	Date of last issue: 11.04.2023
5.2	01.06.2023	800001015495	Print Date 02.06.2023

Prevent discharge of undissolved substance to or recover from onsite			
wastewater.			
Organisational measures to prevent/limit release from site			
Do not apply industrial sludge to natural soils.			
Sludge should be incinerated, contained or reclaimed.			
	laut		
Conditions and Measures related to municipal sewage treatment p			
Estimated substance removal from wastewater via domestic sewage	92.8		
treatment (%)			
Assumed domestic sewage treatment plant flow (m3/d)	2.00E+03		
Maximum allowable site quantity (MSafe) based on OCs and RMMs	4,131.5		
as above (kg/day) :			
Conditions and Measures related to external treatment of waste for disposal			
External treatment and disposal of waste should comply with applicable local and/or regional			
regulations.			
Conditions and measures related to external recovery of waste			

# External recovery and recycling of waste should comply with applicable local and/or regional regulations.

## SECTION 3

## EXPOSURE ESTIMATION

Section 3.1 - Health

No exposure assessment presented for human health.

## Section 3.2 - Environment

Used ECETOC TRA model.

## **SECTION 4**

# GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

#### Section 4.1 - Health

No exposure assessment presented for human health.

#### Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a sitespecific chemical safety assessment is required.

For further information see www.ATIEL.org/REACH\_GES.