Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Date of issue: 10/10/2018 Revision date: 10/10/2018 Version: 1.0

SECTION 1: Identification of the substand	ce/mixture and of the company	v/undertakir	na
1.1. Product identifier			
Product form	: Mixture		
Product name	: WOLF OFFICIALTECH 0W20 LS-FE		
Product code	: 65631		
Product group	: Blend		
1.2. Relevant identified uses of the substance	or mixture and uses advised aga	ainst	
1.2.1. Relevant identified uses			
Main use category :	Industrial use, Professional use, Consum	ner use	
Industrial/Professional use spec :	Non-dispersive use Used in closed systems		
Function or use category :	Lubricants and additives		
1.2.2. Uses advised against			
No additional information available			
1.3. Details of the supplier of the safety data s	sheet		
WOLF OIL CORPORATION N.V.			
Georges Gilliotstraat, 52 2620 Hemiksem - België			
T 0032 (0)3 870 00 00 - F 0032 (0)3 870 00 99 info@wolfoil.com			
1.4. Emergency telephone number			
	2 14 58 45 45 (NL/EN/FR/DE)		
SECTION 2: Hazards identification			
2.1. Classification of the substance or mixture	9		
Classification according to Regulation (EC) No. 127	72/2008 [CLP]		
Not classified			
Adverse physicochemical, human health and envir	onmental effects		
No additional information available			
2.2. Label elements			
Labelling according to Regulation (EC) No. 1272/20	08 [CL P]		
	: EUH210 - Safety data sheet available	on request.	
	EUH208 - Contains Benzoic acid, 2-hy		14-18-alkyl derivs, calcium
	salts(114959-46-5), Benzenesulfonic a		
	calcium salts(722503-68-6). May produ	uce an allergic r	eaction.
2.3. Other hazards			
No additional information available			
SECTION 2. Composition (information on	ingradianta		
SECTION 3: Composition/information on 3.1. Substance	ingreatents		
Not applicable			
3.2. Mixture			
Comments	: The mineral oils in the product con	tain < 3% DMS	D extract (IP 346)
News			
Name	Product identifier	%	Classification according to
			Regulation (EC) No.
			1272/2008 [CLP]
Baseoil - unspecified	(CAS No) 64742-54-7	50 - 75	Asp. Tox. 1, H304
	(EC no) 265-157-1		
	(EC index no) 649-467-00-8 (REACH-no) 01-2119484627-25		
Baseoil - unspecified	(CAS No) 64742-54-7	1 - 9,9	Asp. Tox. 1, H304
	(EC no) 265-157-1 (EC index no) 649-467-00-8		
	(REACH-no) 01-2119484627-25		
Aminon polyothylonopoly, reportion products with 4.2	· · · · ·	1 - 4,9	Aquetia Chronia 4, 11442
Amines, polyethylenepoly-, reaction products with 1,3- dioxolan-2-one and syccinic anhydride	(CAS No) 147880-09-9 (EC no) 604-611-9	1 - 4,9	Aquatic Chronic 4, H413
monopolyisobutenyl derivs	()		
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Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivs., borated	(CAS No) 134758-95-5 (EC no) 603-861-6	1 - 2,4	Aquatic Chronic 4, H413
Bis(nonylphenyl)amine	(CAS No) 36878-20-3 (EC no) 253-249-4 (REACH-no) 01-2119488911-28	1 - 2,4	Aquatic Chronic 4, H413
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	(CAS No) 68784-31-6 (EC no) 272-238-5 (REACH-no) 01-2119657973-23	0,1 - 0,99	Eye Dam. 1, H318 Aquatic Chronic 2, H411
Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs., calcium salts	(CAS No) 114959-46-5 (EC no) 931-276-9 (REACH-no) 01-2119487109-30	0,1 - 0,99	Skin Sens. 1, H317 Aquatic Chronic 4, H413
Reaction mass of isomers of C7-9-alkyl 3-(3,5-di- trans-butyl-4-hydroxyphenyl)propionate	(CAS No) 125643-61-0 (EC no) 406-040-9 (EC index no) 607-530-00-7 (REACH-no) 01-0000015551-76	0,1 - 0,99	Aquatic Chronic 4, H413
Benzenesulfonic acid, methyl-, mono-C20-24- branched alkyl derivs., calcium salts	(CAS No) 722503-68-6 (EC no) 682-816-2	0,1 - 0,99	Skin Sens. 1B, H317 Aquatic Chronic 4, H413

Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation	: Not expected to require first aid measures.
First-aid measures after skin contact	: Wash skin with mild soap and water.
First-aid measures after eye contact	: In case of eye contact, immediately rinse with clean water for 10-15 minutes.
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth. Get immediate medical advice/attention.
4.2. Most important symptoms and effects, k	both acute and delayed
Symptoms/injuries after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/injuries after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
Symptoms/injuries after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Symptoms/injuries after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

No additional information available

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Water fog. Foam. Powder. Dry chemical product.
Unsuitable extinguishing media	: Do not use a heavy water stream.
5.2. Special hazards arising from the substa	ance or mixture
No additional information available	
5.3. Advice for firefighters	
Precautionary measures fire	: Exercise caution when fighting any chemical fire.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures 6.1. Personal precautions, protective equipment and emergency procedures		
6.1.1. For non-emergency personnel Protective equipment	: Wear suitable protective clothing and gloves.	
6.1.2. For emergency responders		
Protective equipment	: Wear suitable protective clothing and gloves.	
6.2. Environmental precautions		
Prevent entry to sewers and public waters. Notify aut	thorities if product enters sewers or public waters.	
6.3. Methods and material for containment a	and cleaning up	
For containment	: Impound and recover large spill by mixing it with inert granular solids.	
Methods for cleaning up	: Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr.	
Other information	: Spill area may be slippery. Use suitable disposal containers.	

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6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required.
Handling temperature	: < 40 °C
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
7.2. Conditions for safe storage, including a	ny incompatibilities
Storage temperature	: < 40 °C
Storage area	: Store in dry, cool, well-ventilated area.
7.3. Specific end use(s)	

No additional information available

SECTION 8: Exposure contro 8.1. Control parameters	bls/personal protection
Additional information	: 5 mg/m3 for oil mists (TWA, 8h-workday) recommended, based upon the ACGIH TLV (Analysis according to US NIOSH Method 5026, NIOSH Manual of Analytical Methods, 3rd Edition).

8.2. Exposure controls

Personal protective equipment:

Safety glasses. Gloves.

Hand protection:

Permeation time: minimum >480min long term exposure; material / thickness [mm]: >0,35 mm. Nitrile rubber (NBR) /

Eye protection:

Standard EN 166 - Personal eye-protection.

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical 9.1. Information on basic physical and c	
Physical state	: Liquid
Appearance	: Oily liquid.
Colour	: Yellow-brown.
Odour	: Characteristic.
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 200 °C ASTM D92
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available

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Relative density	: No data available
Density	: 845 kg/m³ @15°C
Solubility	: Slightly soluble, the product remains on the water surface.
Log Pow	: No data available
Viscosity, kinematic	: 40 mm²/s @40°C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
9.2. Other information	

No additional information available

SECTION 10: Stability and reactivity	
10.1. Reactivity	
None under normal conditions.	
10.2. Chemical stability	
Stable under normal conditions.	
10.3. Possibility of hazardous reactions	
None under normal conditions.	
10.4. Conditions to avoid	
No data available.	
10.5. Incompatible materials	
Strong oxidizers. acids. Bases.	
10.6. Hazardous decomposition products	
None under normal conditions.	

SECTION 11: Toxicological information	
11.1. Information on toxicological effects	
Acute toxicity (oral)	Not classified
Acute toxicity (dermal) :	Not classified
Acute toxicity (inhalation)	Not classified
Baseoil - unspecified (64742-54-7)	
LD50 oral	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5 mg/l/4h

Bis(nonylphenyl)amine (36878-20-3)	
LD50 oral rat	> 5000 mg/kg OECD 401
LD50 dermal rat	> 2000 mg/kg OECD 402

Reaction mass of isomers of C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl)propionate (125643-61-0)	
LD50 oral rat	> 2000 mg/kg OECD 401
LD50 dermal rat	> 2000 mg/kg OECD 402
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Baseoil - unspecified (64742-54-7)	
NOAEL (dermal, rat/rabbit)	> 2000 mg/kg bodyweight

Specific target organ toxicity (repeated exposure)

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Baseoil - unspecified (64742-54-7)	
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight/day
NOAEL (subacute, oral, animal/male, 28 days)	> 220 mg/kg bodyweight
NOAEL (subchronic, oral, animal/male, 90 days)	> 980 mg/kg bodyweight
Aspiration hazard	: Not classified

Aspiration hazard WOLF OFFICIALTECH 0W20 LS-FE Viscosity, kinematic

40 mm²/s @40°C

v 100001tj	y, Millemado	
		1

: Not classified
: Not classified
> 100 mg/l

Bis(nonylphenyl)amine (36878-20-3)	
LC50 fish 1	100 mg/l OECD 203 (Danio rerio @96h)
EC50 Daphnia 1	> 100 mg/l OECD 202 (Daphnia magna @48h)
EC50 other aquatic organisms 1	> 100 mg/l OECD 201 (Desmodesmus subspicatus @72h)

Reaction mass of isomers of C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl)propionate (125643-61-0)	
LC50 fish 1	> 74 mg/l OECD 203, (Danio rerio, 96h)
EC50 Daphnia 1	> 100 mg/l OECD 202, (Daphnia magna, 24h)
EC50 other aquatic organisms 1	0 mg/l
EC50 72h algae (1)	> 3 mg/l OECD 201, (Desmodesmus subspicatus, 72h)
12.2. Persistence and degradability WOLF OFFICIALTECH 0W20 LS-FE	

Bis(nonylphenyl)amine (36878-20-3)	
Biodegradation	1 % @28d

Reaction mass of isomers of C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl)propionate (125643-61-0)	
Persistence and degradability	The product is not biodegradable.
12.3. Bioaccumulative potential	
Baseoil - unspecified (64742-54-7)	
Bioaccumulative potential	No data available.

Bis(nonylphenyl)amine (36878-20-3)	
Log Pow	> 7,6

Reaction mass of isomers of C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl)propionate (125643-61-0)	
BCF fish 1	260 OECD 305 (Oncorhynchus mykiss, 35d)
Log Pow	9,2
12.4. Mobility in soil Bis(nonylphenyl)amine (36878-20-3)	

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830	
Reaction mass of isomers of C7-9-alkyl 3-(3,	5-di-trans-butyl-4-hydroxyphenyl)propionate (125643-61-0)
Ecology - soil	Adsorbs into the soil.
12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Other adverse effects No additional information available	
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Additional information	: Dispose in a safe manner in accordance with local/national regulations.
SECTION 14: Transport information	
In accordance with ADR / RID / IMDG / IATA / ADN	
14.1. UN number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (ADR) Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not applicable
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not applicable
ADN	
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable
14.5. Environmental hazards	
Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available
14.6. Special precautions for user Overland transport	
No data available	
Transport by sea	
No data available	
Air transport	
No data available	
Inland waterway transport	
No data available	
Rail transport No data available	
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14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

Germany

,	
AwSV/VwVwS Annex reference	: Water hazard class (WGK) 1, low hazard to waters (Classification according to AwSV, Annex 1)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)
Netherlands	
SZW-lijst van kankerverwekkende stoffen	: Baseoil - unspecified, Baseoil - unspecified, Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts are listed
SZW-lijst van mutagene stoffen	: Baseoil - unspecified, Baseoil - unspecified, Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: None of the components are listed
15.2. Chemical safety assessment	

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No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Abbreviations and acronyms:	
	ACGIH: American Conference of Governmental Industrial Hygienists
	TWA: Time Weighted Average
	TLV: Threshold Limit Value
	ASTM: American Society for Testing and Materials
	ADR: Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route
	RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
	ADNR: Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
	IMDG: International Maritime Dangerous Goods
	ICAO: International Civil Aviation Organization
	IATA: International Air Transport Association
	STEL: Short Term Exposure Limit
	LD50: median Lethal Dose for 50% of subjects
	ATE: acute toxicity estimate
	LC50: median Lethal Concentration for 50% of subjects
	EC50: concentration producing 50% effect

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Other information

: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Full text of H- and EUH-statements:	
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Sens. 1	Sensitisation — Skin, Category 1
Skin Sens. 1B	Sensitisation — Skin, category 1B
H304	May be fatal if swallowed and enters airways
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H411	Toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life
EUH208	Contains Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs, calcium salts(114959-46-5), Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs, calcium salts(722503-68-6). May produce an allergic reaction
EUH210	Safety data sheet available on request

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product