Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Date of issue: 23/02/2009 Revision date: 15/01/2019 Supersedes: 19/07/2016 Version: 5.0

SECTION 1: Identification of the substant 1.1. Product identifier	nce/mixture and of the compa	ny/undertaki	ng	
Product form	: Mixture			
Product name	: HYDRAULIC ISO 68			
Product code				
	: 4007			
Product group	: Blend			
1.2. Relevant identified uses of the substance	e or mixture and uses advised a	gainst		
1.2.1. Relevant identified uses				
Main use category	: Industrial use, Professional use, Consumer 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	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				
	-32 14 58 45 45 (NL/EN/FR/DE)			
SECTION 2: Hazarda identification				
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2.1. Classification of the substance or mixtu				
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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.

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4.2. Most important symptoms and effects, 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.	

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	nce 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 au	thorities if product enters sewers or public waters.	
5.3. Methods and material for containment 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.	
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 controls/personal protection

 8.1. Control parameters

 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) /

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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 properties		
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	: > 195 °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	
Relative density	: No data available	
Density	: 885 kg/m³ @15°C	
Solubility	: Slightly soluble, the product remains on the water surface.	
Log Pow	: No data available	
Viscosity, kinematic	: 68 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		

No additional information available

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

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EO) 2015/830	
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithioph	osphate) (4259-15-8)
LD50 oral rat	3100 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
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
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
HYDRAULIC ISO 68	
Viscosity, kinematic	68 mm²/s @ 40°C

SECTION 12: Ecological information		
12.1. Toxicity		
	: Not classified	
Chronic aquatic toxicity	: Not classified	
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophos	sphate) (4259-15-8)	
LC50 fish 1	4,4 mg/l Oncorhynchus mykiss OECD 203	
LC50 fish 2	≥ 0 mg/l	
EC50 Daphnia 1	75 mg/l Daphnia Magna OECD 201	
EC50 96h algae (1)	240 mg/l Scenedesmus Subspicatus OECD 201 @21d	
NOEC (acute)	220 mg/l Scenedesmus subspicatus OECD201 - biomass	
NOEC (chronic)	0,4 mg/l Daphnia Magna OECD 211 @21d - results analog product	
12.2. Persistence and degradability		
HYDRAULIC ISO 68		
Persistence and degradability	Not soluble in water, so only minimally biodegradable.	
12.3. Bioaccumulative potential	12.3. Bioaccumulative potential	
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)		
Log Kow	3,59	
12.4. Mobility in soil		
No additional information available		
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	

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830		
14.2. UN proper shipping name		
Proper Shipping Name (ADR)	: Not applicable	
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		
14.7. Transport in bulk according to Anno	ex II of MARPOL and the IBC Code	
Not applicable		
SECTION 15: Regulatory information		
15.1 Satety health and environmental re	autone logistion checitic for the clinetance of mixture	

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)

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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	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components 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	

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
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 Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H315	Causes skin irritation
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

SDS EU (REACH Annex II)

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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