## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010 Date of issue:20/09/2005 Revision date:18/07/2016 Supersedes:9/06/2016

SECTION 4. Identification of the subs	stones/minture and of the company/undertaking		
	stance/mixture and of the company/undertaking		
1.1. Product identifier Product form	: Mixture		
Product name	: WOLF AROW ISO 5		
Product name Product code	: 4000		
	: Blend		
Product group			
1.2. Relevant identified uses of the subst	ance or mixture and uses advised against		
1.2.1. Relevant identified uses			
Main use category	: Industrial use, Professional use, Consumer use		
Industrial/Professional use spec	: Non-dispersive use		
<b>–</b> <i>i</i>	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 d	lata 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			
Emergency number	: +32 14 58 45 45 (NL/EN/FR/DE)		
SECTION 2: Hazards identification			
2.1. Classification of the substance or mi	ixture		
Classification according to Regulation (EC) No. 1272/2008 [CLP]			
Aspiration hazard, Category 1 H304			
Full text of H statements : see section 16			
2.2. Label elements			
Labelling according to Regulation (EC) No. 12	72/2008 [CLP]		
Hazard pictograms (CLP)			
Signal word (CLP)	GHS08		
Signal word (CLP)	<ul> <li>Danger</li> <li>Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, &lt;0,03% aromatics</li> </ul>		
Hazardous ingredients	EVALUATION AND A LONG AND A		
Lineard statements (CLD)			
Hazard statements (CLP)	: H304 - May be fatal if swallowed and enters airways		
Hazard statements (CLP) Precautionary statements (CLP)	<ul> <li>H304 - May be fatal if swallowed and enters airways</li> <li>P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician</li> </ul>		
	<ul> <li>H304 - May be fatal if swallowed and enters airways</li> <li>P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician P331 - Do NOT induce vomiting</li> </ul>		
	<ul> <li>H304 - May be fatal if swallowed and enters airways</li> <li>P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician P331 - Do NOT induce vomiting P405 - Store locked up P501 - Dispose of contents/container in accordance with local/regional/national/international</li> </ul>		
	<ul> <li>H304 - May be fatal if swallowed and enters airways</li> <li>P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician P331 - Do NOT induce vomiting P405 - Store locked up P501 - Dispose of contents/container in accordance with local/regional/national/international regulations</li> </ul>		
Precautionary statements (CLP)	<ul> <li>H304 - May be fatal if swallowed and enters airways</li> <li>P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician P331 - Do NOT induce vomiting P405 - Store locked up P501 - Dispose of contents/container in accordance with local/regional/national/international regulations P101 - If medical advice is needed, have product container or label at hand</li> </ul>		
Precautionary statements (CLP) Child-resistant fastening	<ul> <li>H304 - May be fatal if swallowed and enters airways</li> <li>P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician P331 - Do NOT induce vomiting P405 - Store locked up P501 - Dispose of contents/container in accordance with local/regional/national/international regulations P101 - If medical advice is needed, have product container or label at hand</li> <li>No</li> </ul>		
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No additional information available

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### **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

### Not applicable

#### 3.2. **Mixture**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0,03% aromatics	(CAS No) 64742-46-7 (EC no) 934-956-3	90 - 100	Asp. Tox. 1, H304
Zinkalkyldithiophosphate	(CAS No) 68649-42-3 (EC no) 272-028-3 (REACH-no) 01-2119493635-27	0,1 - 0,99	Eye Dam. 1, H318 Aquatic Chronic 2, H411

#### 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 First-aid measures after skin contact First-aid measures after eye contact	<ul> <li>Not expected to require first aid measures.</li> <li>Wash skin with mild soap and water.</li> <li>In case of eye contact, immediately rinse with clean water for 10-15 minutes.</li> </ul>	
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth. Get immediate medical advice/attention.	
4.2. Most important symptoms and effect	s, 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 sub-	stance 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 meas	ures	
6.1. Personal precautions, protective equ		
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 authorities if product enters sewers or public waters.		
6.3. Methods and material for containmer	it 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		
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<b>SECTION 7: Handling and storag</b>	e
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, inc	luding any 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/p	ersonal 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) /
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.



<b>SECTION 9: Physical and chemical</b>	properties
9.1. Information on basic physical and	chemical properties
Physical state	: Liquid
Appearance	: Oily liquid.
Colour	: Yellow-brown.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: 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	: > 115 °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	: 823 kg/m³ @15°C
Solubility	: Slightly soluble, the product remains on the water surface.
Log Pow	: No data available
Viscosity, kinematic	: 5 mm²/s @ 40°C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

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Explosive limits	: No data available	
9.2. Other information		
No additional information available		
<b>SECTION 10: Stability and reactivit</b>	ty	
10.1. Reactivity		
None under normal conditions.		
10.2. Chemical stability		
Stable under normal conditions.		
10.3. Possibility of hazardous reactions	i de la constante de	
None under normal conditions.		
10.4. Conditions to avoid		
No data available.		
10.5. Incompatible materials		
Strong oxidizers. acids. Bases.		
10.6. Hazardous decomposition produc	ts	

None under normal conditions.

SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
Acute toxicity	: Not classified	
Hydrocarbons, C15-C20, n-alkanes, isoalkan	es, cyclics, <0,03% aromatics (64742-46-7)	
LD50 oral rat	> 5000	
LD50 dermal rabbit	> 3160 mg/kg	
LC50 inhalation rat (mg/l)	> 5266 mg/m³ 4h	
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	: May be fatal if swallowed and enters airways.	
WOLF AROW ISO 5		
Viscosity, kinematic	5 mm²/s @ 40°C	

SECTION 12: Ecological information		
12.1. Toxicity		
Hydrocarbons, C15-C20, n-alkanes, isoalkane	s, cyclics, <0,03% aromatics (64742-46-7)	
EC50 Daphnia 1	> 3193 mg/l 48h	
EC50 other aquatic organisms 1	> 10000 ml/l Algae 72h	
12.2. Persistence and degradability		
WOLF AROW ISO 5		
Persistence and degradability	Not soluble in water, so only minimally biodegradable.	
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0,03% aromatics (64742-46-7)		
Biodegradation	74 % OECD 306; 28d	
12.3. Bioaccumulative potential		
No additional information available		
12.4. Mobility in soil		

No additional information available

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12.5. Results of PBT and vPvB asses	sment
No additional information available	
12.6. Other adverse effects	
No additional information available	
	41-00-0
SECTION 13: Disposal considera	uons
13.1. Waste treatment methods	
Additional information	: Dispose in a safe manner in accordance with local/national regulations.
<b>SECTION 14: Transport informati</b>	on
In accordance with ADR / RID / IMDG / IATA	A / ADN
14.1. UN number	
Not regulated for transport	
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
ΑΤΑ	
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

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#### - Rail transport

#### No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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

#### 15.1.2. National regulations

#### Germany

VwVwS Annex reference 12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV		Water hazard class (WGK) 2, hazard to waters (Classification according to VwVwS, Annex 4) Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)
Netherlands		
SZW-lijst van kankerverwekkende stoffen	:	Zinkalkyldithiophosphate is listed
SZW-lijst van mutagene stoffen	:	Zinkalkyldithiophosphate is 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
Denmark		
Classification remarks	:	Emergency management guidelines for the storage of flammable liquids must be followed
Recommendations Danish Regulation	:	Young people below the age of 18 years are not allowed to use the product
15.2. Chemical safety assessment		

#### 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

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.
	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
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H304	May be fatal if swallowed and enters airways
H318	Causes serious eye damage
H411	Toxic to aquatic life with long lasting effects

#### 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