



Where Quality Comes First



MINERAL OILS

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ARKO WOP 60

Section 1: Identification of the Substan	nce / Mixture		
1.1 Product identifier			
Product name	ARKO WOP 60		
Product description	White Oil Pharma		
Product type	Light Mineral Oil		
MARPOL Annex-1	****		
1.2 Identified uses			
Distribution of substance	Industrial		
Formulation & (re)packing of substance	Industrial A		
& mixtures			
Manufacture of substance	Industrial		
Functional fluids	Industrial		
Section 2: Hazard Identification			
4-	Health	i	
Extreme	Flammability	1	
3-High	Reactivity	0	
2-Moderate	Special	_	
1-Slight	/*		
Section 3: Compostion / Information o	n Ingredients		
Product / Ingredient name		mixture of hydro-treated hydrocarbons	
Section 4: First Aid Measures	Distillates (Fetroleum)	mixture of flydro-treated flydrocarbons	
	Damaya ta fuash ain &	wavida ayyyaan if heasthing is difficult. Contact	
Inhalation exposure	physician	provide oxygen, if breathing is difficult. Contact	
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.		
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.		
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.		
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.		
Section 5: Fire Fighting Measures			
5.1 Extinguishing media			
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.		
5.2 Special hazards arising from the su			
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.		
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.		
5.3 Advice for firefighters			
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.		

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate. Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H_2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

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Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.
Section 7: Handling and Storage	
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable / combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.
Section 8: Exposure Controls / Person	
	hould be consulted for any available use-specific information provided in
8.1 Control parameters	
Occupational exposure limits	
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume [Air contaminant]
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres—Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres—Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres—General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances

	will also be required.
	-
8.2 Exposure control	Mechanical ventilation and local exhaust will reduce exposure via the air.
Appropriate engineering controls	Use oil resistant material in construction of handling equipment. Store under
rr ir	recommended conditions and if heated, temperature control equipment
	should be used to avoid overheating.
Individual protection measures	
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical
Trygicale measures	products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are
	close to the workstation location. Wash contaminated clothing before
	reuse.
Eye / face protection	Recommended: Safety glasses with side shields.
Skin protection	
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.
Body protection	Wear protective clothing if there is a risk of skin contact. Change
7.1	contaminated clothes at the end of working shift.
Other skin protection	Appropriate footwear and any additional skin protection measures should
Other skin protection	be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
	Respirator selection must be based on known or anticipated exposure levels,
Respiratory protection	the hazards of the product and the safe working limits of the selected
and the second	respirator. Use a properly fitted, particulate filter respirator complying with
	an approved standard if a risk assessment indicates this is necessary.
	Emissions from ventilation or work process equipment should be checked
Environmental exposure control	to ensure they comply with the requirements of environmental protection
	legislation. In some cases, fume scrubbers, filters or engineering
	modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Section 9: Physical and Chemical Prop	
Appearance	Transparent, colorless oily liquid
Physical state	Liquid
Colour	Water White
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	<-15 °C (ASTM D 97)
Flash point	> 140 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by	Not available
volume	
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)
Density (g/ml)	0.810 – 0.0.845 max at 29.5 °C
Solubility (water)	Insoluble in water

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Partition coefficient (n-octanol/water)		Not available			
Decomposition temperature		No data			
Auto-ignition temperature		>250 °C	>250 °C		
Kinematic viscosity at 4	40 °C (104 °F)	7.0 - 11.0	cSt (ASTM D 445)		
Explosive properties		No data			
Oxidising properties		No data			
DMSO extractable com		<3.0 %			
oil substance(s) according					
Section 10: Stability an	nd Reactivity	NT : C'	1 1 . 1 .		and the same of th
10.1 Reactivity		No specific ingredients		elated to reactivity available for this product or its	
10.2 Chemical stability	7	Stable und	er normal conditions		
10.3 Possibility of haza	ardous reactions		ma <mark>l con</mark> ditions of stor dising agent.	rage and use, hazard	ous reactions will not
10.4 Conditions to avo	id		from extreme heat a	and oxidising agents.	
10.5 Incompatible mat	erials		e combustion is likely		
10.6 Hazardous decom			lid and liquid particul		
products	-P solvion		H ₂ S, SO _x (sulph <mark>ur</mark> oxid	_	and
			ed organic and inorgan	nic compounds.	
SECTION 11: Toxicol					
11.1 Information on to	xicological effect	ts			
Acute toxicity					
Product / ingredient name	Result	t	Species	Dose	Exposure
Distillate (Petroleum),	LC 50 Inhalati		Rat	>2.18mg/l	4 hours
hydro treated heavy paraffinic	LD 50 De	rmal	Rabbit	> 5000 mg/kg	_
	LD 50 C	ral	Rat	>15000 mg/kg	-
Irritation / corrosion				mg/kg	V
Skin					
Eye		No known significant effects or critical hazards.			
Respiratory					
Sensation Sensition					
Skin					
Respiratory		No known significant effects or critical hazards.			
Mutagenicity	Mutagenicity		No data available to indicate product or any components present greater than 0.1% are multigene or genotoxic.		
Carcinogenicity		The base oil(s) in this product is based on an severely hydrotreated			
		distillate. The product should not be regarded as			
Reproductive toxicity		The product should not be regarded as a carcinogen. Contains no ingredient			
Specific target organ toxicity – single		listed as toxic to reproduction. Not classified			
exposure Specific target organ toxicity – repeated					
exposure					
Aspiration hazard	•		Aspiration hazard – Category 1		
Information on likely routes of exposure Not available					

Potential acute health effects		
Eye contact	Eye contact may cause redness and transient pain.	
Inhalation	Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.	
Skin contact	No known significant effects or critical hazards.	
Ingestion	May be fatal if swallowed and enters airways.	
Potential chronic health effects		
General	No known significant effects or critical hazards.	
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.	
Mutagenicity	No known significant effects or critical hazards.	
Teratogenicity		
Product / ingredient name		
Fertility effects		
Other information Specific hazard	Not available	
Section 12: Ecological Information		
12.1 Toxicity	Not expected to be harmful to aquatic organisms.	
12.2 Persistence and degradability	Not inherently biodegradable.	
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.	
12.4 Mobility in soil	Not considered mobile.	
12.5 Results of PBT & vPvB assessment	Not applicable	
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.	
Section 13: Disp <mark>osal C</mark> onsiderations		
	neric advice and guidance. The list of Identified Uses in Section 1 should be formation provided in the Exposure Scenario(s).	
constitution and available age specific in	Where possible (e.g. in the absence of relevant contamination),	

consumed for any available use specific fine	interior provided in the Exposure Section (6).
Product Methods of disposal	Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal
Hazardous waste	Yes
European waste catalogue (EWC) Waste Code 13 03 07*	Waste designation.
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Section 14: Transport Information	

International transport reg	gulations				
	ADR / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification	
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated	
14.2 UN proper shipping name	_	_	_	_	
14.3 Transport hazard	_	_	_	_	
class(es)					
14.4 Packing group		_	_	_	
14.5 Environmental hazards	No	No	No	No	
Additional Information	_	A -	_	_	
14.6 Special precautions fo	or user oils				
14.7 Transport in bulk acc		of <mark>MARPOL 73/78</mark> ar	nd the IBC Code		
Section 15: Regulatory Info					
15.1 Safety, health and env Regulation (EC) No. 1907/2		ons / legislation speci	fic for the substance	or mixture EU	
Annex XIV – List of substance					
to authorisation Annex XIV		of the components are l	isted		
Substances of very high cond					
Annex XVII—Restrictions or	3.7	nlicable			
manufacture, placing on the nuse of certain dangerous substa	idiliot dila	Not applicable			
mixtures and articles.	inces,				
	ational Lists National Inventory Inventory name				
Australia	Australian Inventory of Chemical Substances (AICS) – Yes			'S) – Yes	
	Domestic Substances List (DSL) – Yes				
Canada	Non-Domestic Substances List (NDSL) – No				
China	Inventory of Existing Chemical Substances in China (IECSC) – Yes				
Europe	European Inventory of Existing Commercial Chemical Substances				
Zurope	(EINECS) – Yes				
	-	European List of Notified Chemical Substances (ELINCS) – No			
Japan		Inventory of Existing and New Chemical Substances (ENCS) – Yes			
Korea		Existing Chemicals List (ECL) – Yes			
New Zealand		ealand Inventory – Ye			
Philippines	Philipp Yes	ine Inventory of Chem	nicals and Chemical S	ubstances (PICCS) –	
United States & Puerto Rico	States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory – Yes		Yes		
*A "Yes" indicates that all c	omponents of this pr	oduct comply with the	inventory requiremen	nts administered by	
the governing country(s)					
A "No" indicates that one or madministered by the governing		e product are not listed	or exempt from listing	on the inventory	
Section 16: Other Information					
Revision comments					
Legend to abbreviations					
ADR				earriage of dangerous	
	good b	European agreement concerning the international carriage of dangero good by road.			
RID	Regulations agreement concerning the international carriage of dangerous good by rail.		l carriage of		
IMDG Code	Interna	tional Maritime Dange	erous Goods Code.		

ICAO	International Civil Aviation Organization.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].
SCBA	Self-Contained Breathing Apparatus.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/seller to ensure that the information content in the material data sheet is relevant to the product manufactured/handledorsoldby, as the case may be. R K PETROLEUMS makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.



ARKO WOP 70

Section 1: Identification of the Substar	nce / Mixture		
1.1 Product identifier			
Product name	ARKO WOP 70		
Product description	White Oil Pharma		
Product type	Light Mineral Oil		
MARPOL Annex-1	****		
1.2 Identified uses			
Distribution of substance	Industrial		
Formulation & (re)packing of substance	Industrial A		
& mixtures			
Manufacture of substance	Industrial		
Functional fluids	Industrial		
Section 2: Hazard Identification			
4-	Health	Î	
Extreme	Flammability	1	
3-High	Reactivity	0	
2-Moderate	Special	_	
1-Slight	*		
Section 3: Compostion / Information o	n Ingredients		
Product / Ingredient name		mixture of hydro-treated hydrocarbons	
Section 4: First Aid Measures	Distinutes (Fetroleum)	mixture of flydro fredeed flydroedroons	
Inhalation exposure	Remove to fresh air & r	provide oxygen, if breathing is difficult. Contact	
initiation exposure	physician		
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.		
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.		
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.		
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.		
Section 5: Fi <mark>re</mark> Fightin <mark>g M</mark> easures			
5.1 Extinguishing media			
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.		
5.2 Special hazards arising from the su	bstance or mixture		
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.		
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H_2S , SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.		
5.3 Advice for firefighters			
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.		

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H_2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

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Salet	y Data	1-SHEE

Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.
Section 7: Handling and Storage	
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable / combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.
Section 8: Exposure Controls / Persons	
	nould be consulted for any available use-specific information provided in
8.1 Control parameters	
Occupational exposure limits	
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume.
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume [Air contaminant]
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres—Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres—Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres—General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances

	will also be required.	
8.2 Exposure control	Mechanical ventilation and local exhaust will reduce exposure via the air.	
Appropriate engineering controls	Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment	
	should be used to avoid overheating.	
Individual protection measures	should be used to avoid overheating.	
individual protection incusures	Wash hands, forearms and face thoroughly after handling chemical	
Hygiene measures	products, before eating, smoking and using the lavatory and at the end of	
	the working period. Ensure that eyewash stations and safety showers are	
	close to the workstation location. Wash contaminated clothing before	
	reuse.	
Eye / face protection	Recommended: Safety glasses with side shields.	
Skin protection		
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.	
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.	
	Appropriate footwear and any additional skin protection measures should	
Other skin protection	be selected based on the task being performed and the risks involved and	
	should be approved by a specialist before handling this product.	
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected	
recipitatory protection	respirator. Use a properly fitted, particulate filter respirator complying with	
	an approved standard if a risk assessment indicates this is necessary.	
	Emissions from ventilation or work process equipment should be checked	
Environmental exposure control	to ensure they comply with the requirements of environmental protection	
	legislation. In some cases, fume scrubbers, filters or engineering	
	modifications to the process equipment will be necessary to reduce emissions	
Section 0. Dhysical and Chamical Duar	to acceptable levels.	
Section 9: Physical and Chemical Prop		
Appearance Physical state	Transparent, colorless oily liquid	
Physical state	Liquid	
Colour	Water White	
Odor	Petroleum odor	
Odour threshold	Not available	
pH	Not applicable	
Pour point	<-15 °C (ASTM D 97)	
Flash point	> 160 °C	
Evaporation rate	Not available	
Flammability (solid, gas)	Not available	
Flammability limits in air (lower), % by volume	Not available	
Flammability limits in air (upper), % by	Not available	
volume		
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)	
Density (g/ml)	0.810 – 0.0.850 max at 29.5 °C	
Solubility (water)	Insoluble in water	
Partition coefficient (n-octanol/water)	Not available	
Decomposition temperature	No data	
Auto-ignition temperature	>250 °C	
Kinematic viscosity at 40 °C (104 °F)	11.0 – 14.0 cSt (ASTM D 445)	
Explosive properties	No data	
Oxidising properties	No data	

DMSO extractable compounds for base					
	<3.0 %				
oil substance(s) according to IP346					
Section 10: Stability and Reactivity	1				
10.1 Reactivity	No specific ingredients	c test data related to r s.	reactivity available for	or this product or its	
10.2 Chemical stability	Stable und	er normal conditions			
10.3 Possibility of hazardous reactions	Under nor	mal conditions of stor	rage and use, hazard	ous reactions will not	
<u> </u>	occur. Oxi	dising agent.			
10.4 Conditions to avoid	-	from extreme heat a			
10.5 Incompatible materials		e combustion is likely			
10.6 Hazardous decomposition products	monoxide,	airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.			
SECTION 11: Toxicological Informati	on				
11.1 Information on toxicological effec	ts				
Acute toxicity					
Product / ingredient Resul	t	Species	Dose	Exposure	
Distillate (Petroleum), LC 50 Inhalat and mis		Rat	>2.18mg/l	4 hours	
hydro treated heavy LD 50 De	rmal	Rabbit	> 5000	_	
paraffinic			mg/kg		
LD 50 C	Oral	Rat	>15000	_	
			mg/kg		
Irritation / corrosion					
Skin					
Eye	No known	significant effects or	critical hazards.		
Respiratory					
Sensation					
Skin	N - 1	· · · · · · · · · · · · · · · · · · ·			
Respiratory	No known	significant effects or	critical nazards.		
Mutagenicity		nilable to indicate prod ater than 0.1 % are mu			
Carcinogenicity		il(s) in this product is			
Danus du ativa taviaita	The product should not be regarded as				
Reproductive toxicity	a carcinogen. Contains no ingredient				
	listed as toxic to reproduction.				
Specific target organ toxicity – single exposure	Not classif	ïed			
Specific target organ toxicity – repeated					
exposure					
Aspiration hazard	Aspiration hazard – Category 1				
Information on likely routes of	Not availa	ble			
exposure					
Potential acute health effects					
Eye contact	i	et may cause redness			
Inhalation	Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.				
Skin contact	No known	significant effects or			
Ingestion			enters airways.		

Potential chronic health effects		
General	No known significant effects or critical hazards.	
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.	
Mutagenicity		
	No known significant effects or critical hazards.	
Teratogenicity		
Product / ingredient name		
Fertility effects		
Other information Specific hazard	Not available	
Section 12: Ecological Information		
12.1 Toxicity	Not expected to be harmful to aquatic organisms.	
12.2 Persistence and degradability	Not inherently biodegradable.	
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.	
12.4 Mobility in soil	Not considered mobile.	
12.5 Results of PBT & vPvB assessment	Not applicable	
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.	
Section 13: Disp <mark>osa</mark> l Considera <mark>ti</mark> ons		

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

	Where possible (e.g. in the absence of relevant contamination),	
	recycling of used substance is feasible and recommended. This	
Product Methods of disposal	substance can be burned or incinerated, subject to national/local	
	authorisations, relevant contamination limits, safety regulations and air quality	
	legislation. Contaminated or waste substance (not directly recyclable):	
	Disposal can be carried out directly, or by delivery to qualified waste	
	handlers. National legislation may identify a specific organisation, and/or	
	prescribe composition limits and methods for recovery or disposal	
Hazardous waste	Yes	
European waste catalogue (EWC) Waste	Waste designation.	
Code 13 03 07*		
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible.	
intelliges of disposal	Waste packaging should be recycled. Incineration or landfill should only	
	be considered when recycling is not feasible.	
Section 14: Transport Information		

International transport regulations

	ADR / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	_	_	_	_
14.3 Transport hazard class(es)	_	_	_	_

14.4 Packing group	_	_	_	_
14.5 Environmental	No	No	No	No
hazards				
Additional Information	_	<u>—</u>	_	_

14.6 Special precautions for user oils

14.7 Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV – List of substances subject to authorisation Annex XIV Substances of very high concern	None of the components are listed
Annex XVII—Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.	Not applicable
International Lists National Inventory	Inventory name
Australia	Australian Inventory of Chemical Substances (AICS) – Yes
Canada	Domestic Substances List (DSL) – Yes
Cultud	Non-Domestic Substances List (NDSL) – No
China	Inventory of Existing Chemical Substances in China (IECSC) – Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes
	European List of Notified Chemical Substances (ELINCS) – No
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes
Korea	Existing Chemicals List (ECL) – Yes
New Zealand	New Zealand Inventory – Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16: Other Information

Revision comments	
Legend to abbreviations	
ADR	European agreement concerning the international carriage of dangerous good by road.
RID	Regulations agreement concerning the international carriage of dangerous good by rail.
IMDG Code	International Maritime Dangerous Goods Code.
ICAO	International Civil Aviation Organization.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].
SCBA	Self-Contained Breathing Apparatus.

REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/seller to ensure that the information content in the material data sheet is relevant to the product manufactured/handledorsold by, as the case may be. R/K PETROLEUMS makes now arranties expressed or implied in respect of the adequacy of this document for any particular purpose.



ARKO WOP 80

Section 1: Identification of the Substan	ce / Mixture		
1.1 Product identifier			
Product name	ARKO WOP 80		
Product description	White Oil Pharma		
Product type	Light Mineral Oil		
MARPOL Annex-1	****		
1.2 Identified uses			
Distribution of substance	Industrial		
Formulation & (re)packing of substance	Industrial		
& mixtures			
Manufacture of substance	Industrial		
Functional fluids	Industrial		
Section 2: Hazard Identification			
4-	Health	1	
Extreme	Flammability	1	
3-High	Reactivity	0	
2-Moderate	Special	-	
1-Slight			
Section 3: Compostion / Information or	n Ingredients		
Product / Ingredient name	Distillates (Petroleum)	mixture of hydro-treated hydrocarbons	
Section 4: First Aid Measures			
Inhalation exposure	Remove to fresh air & provide oxygen, if breathing is difficult. Contact physician		
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.		
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.		
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.		
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.		
Section 5: Fire Fighting Measures			
5.1 Extinguishing media			
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.		
5.2 Special hazards arising from the su	bstance or mixture		
Hazards from the substance or mixture	Flammable liquids in pres	ssurised containers may rupture and when a highly flammable vapour cloud.	
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.		
5.3 Advice for firefighters			
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.		

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H_2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

Safety		

Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.		
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.		
Section 7: Handling and Storage			
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.		
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.		
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.		
the Exposure Scenario(s).	nould be consulted for any available use-specific information provided in		
8.1 Control parameters Occupational exposure limits			
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.		
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume [Air contaminant]		
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances		

	will also be required.		
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.		
Individual protection measures			
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.		
Eye / face protection	Recommended: Safety glasses with side shields.		
Skin protection			
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.		
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.		
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.		
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.		
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.		
Section 9: Physical and Chemical Prop	erties		
Appearance	Transparent, colorless oily liquid		
Physical state	Liquid		
Colour	Water White		
Odor	Petroleum odor		
Odour threshold	Not available		
рН	Not applicable		
Pour point	<-15 °C (ASTM D 97)		
Flash point	> 170 °C		
Evaporation rate	Not available		
Flammability (solid, gas)	Not available		
Flammability limits in air (lower), % by volume	Not available		
Flammability limits in air (upper), % by volume	Not available		
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)		
Density (g/ml)	0.820 – 0.0.860 max at 29.5 °C		
Solubility (water)	Insoluble in water		
Partition coefficient (n-octanol/water)	Not available		
Decomposition temperature	No data		
Auto-ignition temperature	>250 °C		
Kinematic viscosity at 40 °C (104 °F)	14.0 – 19.0 cSt (ASTM D 445)		
Explosive properties	No data		

Oxidising properties		No data				
DMSO extractable compounds for base		<3.0 %				
oil substance(s) according						
Section 10: Stability and	id Reactivity	NT 101				
10.1 Reactivity		No specific ingredients	c test data related to a	reactivity available fo	or this product or its	
10.2 Chemical stability	7	Stable und	er normal conditions			
10.3 Possibility of haza	rdous reactions		mal conditions of sto dising agent.	rage and use, hazard	ous reactions will not	
10.4 Conditions to avoi	id	Keep away from extreme heat and oxidising agents.				
10.5 Incompatible mat	erials	Incomplete	e combustion is likely	to give rise to a compl	ex mixture of	
10.6 Hazardous decom products		monoxide,	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.			
SECTION 11: Toxicolo	ogical Informati	on				
11.1 Information on to	xicological effect	ts				
Acute toxicity						
Product / ingredient name	Result		Species	Dose	Exposure	
Distillate (Petroleum),	LC 50 Inhalati and mis		Rat	>2.18mg/l	4 hours	
hydro treated heavy paraffinic	LD 50 De	rmal	Rabbit	> 5000 mg/kg	_	
	LD 50 O		Rat	>15000 mg/kg	_	
Irritation / corrosion						
Skin						
Eye		No known	significant effects or	r critical hazards.		
Respiratory						
Sensation						
Skin		NI - 1	-::C:		*	
Respiratory		No known	significant effects or	r critical nazards.		
Mutagenicity			ailable to indicate prod ater than 0.1 % are mu	- I		
Carcinogenicity		The base oil(s) in this product is based on an severely hydrotreated distillate.				
Reproductive toxicity		The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction.				
Specific target organ toxicity – single exposure		Not classified				
Specific target organ to exposure	oxicity – repeated					
Aspiration hazard		Aspiration hazard – Category 1				
Information on likely re exposure	outes of	Not available				
Potential acute health effects						
Eye contact	- CIICOS	Eve contac	et may cause redness	and transient pain		
Inhalation		Eye contact may cause redness and transient pain. Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.		atures may cause		
Skin contact		-	significant effects or	r critical hazards		
SKIII COIIIaCt		TIO KIIOWII	organizani circus Ul	orthoar nazarus.		

Ingestion	May be fatal if swallowed and enters airways.		
Potential chronic health effects			
General	No known significant effects or critical hazards.		
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.		
Mutagenicity			
	No known significant effects or critical hazards.		
Teratogenicity			
Product / ingredient name			
Fertility effects			
Other information Specific hazard	Not available		
Section 12: Ecological Information			
12.1 Toxicity	Not expected to be harmful to aquatic organisms.		
12.2 Persistence and degradability	Not inherently biodegradable.		
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.		
12.4 Mobility in soil	Not considered mobile.		
12.5 Results of PBT & vPvB assessment	Not applicable		
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.		
Section 13: Disp <mark>osa</mark> l Conside <mark>rations</mark>			
The information in this section contains ger	neric advice and guidance. The list of Identified Uses in Section 1 should be		

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

	Where possible (e.g. in the absence of relevant contamination),	
	recycling of used substance is feasible and recommended. This	
Product Methods of disposal	substance can be burned or incinerated, subject to national/local	
	authorisations, relevant contamination limits, safety regulations and air quality	
	legislation. Contaminated or waste substance (not directly recyclable):	
	Disposal can be carried out directly, or by delivery to qualified waste	
	handlers. National legislation may identify a specific organisation, and/or	
	prescribe composition limits and methods for recovery or disposal	
Hazardous waste	Yes	
European waste catalogue (EWC) Waste	Waste designation.	
Code 13 03 07*		
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible.	
ivications of disposar	Waste packaging should be recycled. Incineration or landfill should only	
	be considered when recycling is not feasible.	
Section 14: Transport Information		

Section 14: Transport Information

International transport regulations

	ADR / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	_	_	_	_
14.3 Transport hazard	_	_	_	_

class(es)				
14.4 Packing group	_	_	_	_
14.5 Environmental	No	No	No	No
hazards				
Additional Information	_	_	_	_

14.6 Special precautions for user oils

14.7 Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

11084141011 (20) 1101 1507/2000 (11211)			
Annex XIV – List of substances subject to authorisation Annex XIV Substances of very high concern	None of the components are listed		
Annex XVII – Restrictions on the			
manufacture, placing on the market and	Not applicable		
use of certain dangerous substances,			
mixtures and articles.			
International Lists National Inventory	Inventory name		
Australia	Australian Inventory of Chemical Substances (AICS) – Yes		
Canada	Domestic Substances List (DSL) – Yes		
Cumudu	Non-Domestic Substances List (NDSL) – No		
China	Inventory of Existing Chemical Substances in China (IECSC) – Yes		
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes		
	European List of Notified Chemical Substances (ELINCS) – No		
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes		
Korea	Existing Chemicals List (ECL) – Yes		
New Zealand	New Zealand Inventory – Yes		
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes		
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes		

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16: Other Information

Revision comments			
Legend to abbreviations			
ADR	European agreement concerning the international carriage of dangerous good by road.		
RID	Regulations agreement concerning the international carriage of dangerous good by rail.		
IMDG Code	International Maritime Dangerous Goods Code.		
ICAO	International Civil Aviation Organization.		
IATA	International Air Transport Association.		
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.		
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].		

SCBA	Self-Contained Breathing Apparatus.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

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ARKO WOP 90

Section 1: Identification of the Substan	ce / Mixture		
1.1 Product identifier			
Product name	ARKO WOP 90		
Product description	White Oil Pharma		
Product type	Light Mineral Oil		
MARPOL Annex-1	****		
1.2 Identified uses			
Distribution of substance	Industrial		
Formulation & (re)packing of substance	Industrial		
& mixtures			
Manufacture of substance	Industrial		
Functional fluids	Industrial		
Section 2: Hazard Identification		No.	
4-	Health	1	
Extreme	Flammability	1	
3-High	Reactivity	0	
2-Moderate	Special	-	
1-Slight	/		
Section 3: Compostion / Information or	n Ingredients		
Product / Ingredient name	Distillates (Petroleum)	mixture of hydro-treated hydrocarbons	
Section 4: First Aid Measures			
Inhalation exposure	Remove to fresh air & provide oxygen, if breathing is difficult. Contact physician		
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.		
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.		
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.		
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.		
Section 5: Fire Fighting Measures			
5.1 Extinguishing media			
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.		
5.2 Special hazards arising from the su			
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.		
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H_2S , SO_x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.		
5.3 Advice for firefighters			
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.		

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H₂S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

Safety	T .	a .

Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.
Section 7: Handling and Storage	
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.
the Exposure Scenario(s).	nould be consulted for any available use-specific information provided in
8.1 Control parameters Occupational exposure limits	
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume [Air contaminant]
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances

	will also be required.		
8.2 Ermagung control	Mechanical ventilation and local exhaust will reduce exposure via the air.		
8.2 Exposure control Appropriate engineering controls	Use oil resistant material in construction of handling equipment. Store under		
rippropriate engineering controls	recommended conditions and if heated, temperature control equipment		
	should be used to avoid overheating.		
Individual protection measures			
Hygiana maaguras	Wash hands, forearms and face thoroughly after handling chemical		
Hygiene measures	products, before eating, smoking and using the lavatory and at the end of		
	the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before		
	reuse.		
Eye / face protection	Recommended: Safety glasses with side shields.		
Skin protection			
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.		
Body protection	Wear protective clothing if there is a risk of skin contact. Change		
and the second	contaminated clothes at the end of working shift.		
	Appropriate footwear and any additional skin protection measures should		
Other skin protection	be selected based on the task being performed and the risks involved and		
	should be approved by a specialist before handling this product.		
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected		
respiratory protection	respirator. Use a properly fitted, particulate filter respirator complying with		
	an approved standard if a risk assessment indicates this is necessary.		
	Emissions from ventilation or work process equipment should be checked		
Environmental exposure control	to ensure they comply with the requirements of environmental protection		
	legislation. In some cases, fume scrubbers, filters or engineering		
	modifications to the process equipment will be necessary to reduce emissions		
Section 9: Physical and Chemical Prop	to acceptable levels.		
Appearance Physical state	Transparent, colorless oily liquid		
Physical state Colour	Liquid Water White		
Odor Odovratkarskald	Petroleum odor		
Odour threshold	Not available		
pH Pour point	Not applicable		
Flash point	<-15 °C (ASTM D 97) > 180 °C		
Evaporation rate	Not available		
Flammability (solid, gas)	Not available		
Flammability limits in air (lower), % by	Not available		
volume			
Flammability limits in air (upper), % by	Not available		
volume			
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)		
Density (g/ml)	0.820 – 0.0.860 max at 29.5 °C		
Solubility (water)	Insoluble in water		

Safety Data-Sneet						
Partition coefficient (n-c	on coefficient (n-octanol/water) Not available					
Decomposition tempera	ture	No data	o data			
Auto-ignition temperatu	re	>250 °C				
Kinematic viscosity at 4	0 °C (104 °F)	14.0 – 19.0	cSt (ASTM D 445)			
Explosive properties		No data				
Oxidising properties		No data				
DMSO extractable comp	L .	<3.0 %				
oil substance(s) accordin						
Section 10: Stability ar	nd Reactivity					
10.1 Reactivity	•		No specific test data related to reactivity available for this product or its ingredients.			
10.2 Chemical stability	7	Stable und	er normal conditions			
10.3 Possibility of haza	zardous reactions Under nor		r normal conditions of storage and use, hazardous reactions will not . Oxidising agent.			
10.4 Conditions to avoi	id		from extreme heat a	and oxidising agents.		
10.5 Incompatible mat	erials		combustion is likely			
10.6 Hazardous decom			lid and liquid particul			
products	position		H ₂ S, SO _x (sulph <mark>ur</mark> oxid	_	and	
			d organic and ino <mark>rg</mark> ar	nic comp <mark>ounds.</mark>		
SECTION 11: Toxicol						
11.1 Information on to	xicological effect	ts				
Acute toxicity						
Product / ingredient name	Result	t	Species	Dose	Exposure	
Distillate (Petroleum),	LC 50 Inhalati and mis		Rat	>2.18mg/l	4 hours	
hydro treated he <mark>avy</mark> paraffinic	LD 50 De	rmal	Rabbit	> 5000 mg/kg	_	
	LD 50 C	ral	Rat	>15000 mg/kg	_	
Irritation / corrosion				mg/ng	V	
Skin						
Eye		No known significant effects or critical hazards.				
Respiratory						
Sensation Sensition						
Skin						
Respiratory		No known significant effects or critical hazards.				
Mutagenicity		No data available to indicate product or any components				
Carcinogenicity		present greater than 0.1% are multigene or genotoxic. The base oil(s) in this product is based on an severally hydrotreated.				
Caremogenicity		The base oil(s) in this product is based on an severely hydrotreated distillate.		ny nyuroucaicu		
Reproductive toxicity		The product should not be regarded as a carcinogen. Contains no ingredient				
		listed as toxic to reproduction.				
Specific target organ to exposure	xicity – single	Not classified				
Specific target organ to exposure	xicity – repeated	d				
Aspiration hazard		Aspiration hazard – Category 1				
Information on likely re exposure	outes of	Not available				

Potential acute health effects			
Eye contact	Eye contact may cause redness and transient pain.		
Inhalation	Inhalation of oil mist or vapours at elevated temperatures may cause		
	respiratory irritation.		
Skin contact	No known significant effects or critical hazards.		
Ingestion	May be fatal if swallowed and enters airways.		
Potential chronic health effects			
General	No known significant effects or critical hazards.		
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.		
Mutagenicity	No known significant effects or critical hazards.		
Teratogenicity			
Product / ingredient name			
Fertility effects			
Other information Specific hazard	Not available		
Section 12: Ecological Information			
12.1 Toxicity	Not expected to be harmful to aquatic organisms.		
12.2 Persistence and degradability	Not inherently biodegradable.		
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.		
12.4 Mobility in soil	Not considered mobile.		
12.5 Results of PBT & vPvB assessment	Not applicable		
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.		
Section 13: Disp <mark>osal C</mark> onsiderations			
	neric advice and guidance. The list of Identified Uses in Section 1 should be formation provided in the Exposure Scenario(s).		

consulted for any available use-specific information provided in the Exposure Scenario(s).

constitued for any available abe specific info	Timation provided in the Exposure Sechario(s).
Product Methods of disposal	Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal
Hazardous waste	Yes
European waste catalogue (EWC) Waste Code 13 03 07*	Waste designation.
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Section 14: Transport Information	

International transport regulations					
	ADR / RID	ADN	IMO / IMDG	ICAO / IATA	
			Classification	Classification	
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated	
14.2 UN proper shipping name	_	_	_	_	
14.3 Transport hazard class(es)	_	_	_	_	
14.4 Packing group	_	_	_	_	
14.5 Environmental hazards	No	No	No	No	
Additional Information	_	<u>A</u> -	_	_	
14.6 Special precautions f	or user oils				
14.7 Transport in bulk ac		f MARPOL 73/78 an	nd the IBC Code		
Section 15: Regulatory Info					
15.1 Safety, health and env		ons / legislation speci	fic for the substance	or mixture EU	
Regulation (EC) No. 1907/2					
Annex XIV – List of substancto authorisation Annex XIV		f the components are 1	isted		
Substances of very high con-					
Annex XVII—Restrictions or manufacture, placing on the ruse of certain dangerous substantitures and articles.	nthe narket and Not app	Not applicable			
International Lists Nationa	al Inventory Invento	Inventory name			
Australia	Australian Inventory of Chemical Substances (AICS) – Yes			CS) – Yes	
Canada	Domestic Substances List (DSL) – Yes				
Canada	Non-Domestic Substances List (NDSL) – No				
China	Invento	ry of Existing Chemic	cal Substances in Chir	na (<mark>IECSC) – Yes</mark>	
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes			ical Substances	
	Europea	European List of Notified Chemical Substances (ELINCS) – No			
Japan	Invento	Inventory of Existing and New Chemical Substances (ENCS) – Yes			
Korea	Existing	Existing Chemicals List (ECL) – Yes			
New Zealand	New Ze	New Zealand Inventory – Yes			
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PIC Yes		ubstances (PICCS) –		
United States & Puerto Rico	Toxic S	ubstances Control Ac	t (TSCA) Inventory –	Yes	
*A "Yes" indicates that all c	omponents of this pro	oduct comply with the	inventory requiremen	nts administered by	
the governing country(s)	the governing country(s)				
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory			on the inventory		
administered by the governing country(s). Section 16: Other Information					
Revision comments					
Legend to abbreviations					
ADR		European agreement concerning the international carriage of dangerous good by road.			
RID	Regulat	Regulations agreement concerning the international carriage of dangerous good by rail.			

IMDG Code

International Maritime Dangerous Goods Code.

ICAO	International Civil Aviation Organization.		
IATA	International Air Transport Association.		
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.		
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].		
SCBA	Self-Contained Breathing Apparatus.		
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].		
LC 50	Median lethal concentration.		
LD 50	Median lethal dose.		
PBT	Persistent, Bio accumulative and Toxic.		

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/seller to ensure that the information content in the material data sheet is relevant to the product manufactured/handledorsoldby, as the case may be. R K PETROLEUMS makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.



ARKO WOP 100

Section 1: Identification of the Substance / Mixture				
1.1 Product identifier				
Product name	ARKO WOP 100			
Product description	White Oil Pharma			
Product type	Light Mineral Oil			
MARPOL Annex-1	****			
1.2 Identified uses				
Distribution of substance	Industrial			
Formulation & (re)packing of substance	Industrial			
& mixtures				
Manufacture of substance	Industrial			
Functional fluids	Industrial			
Section 2: Hazard Identification				
4-	Health	1		
Extreme	Flammability	1		
3-High	Reactivity	0		
2-Moderate	Special	-		
1-Slight	/			
Section 3: Compostion / Information or	n Ingredients			
Product / Ingredient name	Distillates (Petroleum)	mixture of hydro-treated hydrocarbons		
Section 4: First Aid Measures				
Inhalation exposure	Remove to fresh air & p physician	rovide oxygen, if breathing is difficult. Contact		
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.			
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.			
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.			
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.			
Section 5: Fire Fighting Measures				
5.1 Extinguishing media				
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.			
5.2 Special hazards arising from the su	5.2 Special hazards arising from the substance or mixture			
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.			
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.			
5.3 Advice for firefighters				
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.			

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adec.

Small spillages: Normal antistatic working clothes are usually adequate. Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H₂S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

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-	IPIV	1121		mee

Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.		
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.		
Section 7: Handling and Storage			
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat / sparks / open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.		
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.		
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.		
Section 8: Exposure Controls / Person			
•	nould be consulted for any available use-specific information provided in		
8.1 Control parameters			
Occupational exposure limits			
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.		
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume [Air contaminant]		
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance		

	will also be required.		
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.		
Individual protection measures			
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.		
Eye / face protection	Recommended: Safety glasses with side shields.		
Skin protection			
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.		
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.		
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.		
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.		
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.		
Section 9: Physical and Chemical Prop			
Appearance	Transparent, colorless oily liquid		
Physical state	Liquid		
Colour	Water White		
Odor	Petroleum odor		
Odour threshold	Not available		
pH	Not applicable		
Pour point	<-15 °C (ASTM D 97)		
Flash point	<-13 C (ASTM D 97) > 190 °C		
Evaporation rate	Not available		
Flammability (solid, gas)	Not available		
Flammability limits in air (lower), % by volume	Not available		
Flammability limits in air (upper), % by volume	Not available		
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)		
Density (g/ml)	0.830 – 0.0.860 max at 29.5 °C		
Solubility (water)	Insoluble in water		
Partition coefficient (n-octanol/water)	Not available		
Decomposition temperature	No data		
Auto-ignition temperature	>250 °C		
Kinematic viscosity at 40 °C (104 °F)	19.0 – 24.0 cSt (ASTM D 445)		
Explosive properties	No data		
Oxidising properties	No data ■ ~ 38 ~ ■		

DMSO extractable compounds for base oil substance(s) according to IP346		<3.0 %		·		
Section 10: Stability an						
10.1 Reactivity		No specific	No specific test data related to reactivity available for this product or its ingredients			
10.2 Chemical stability	7		er normal conditions			
10.3 Possibility of haza		Under nor	mal conditions of sto	rage and use, hazard	ous reactions will not	
			dising agent.			
10.4 Conditions to avo	id	Keep away	Keep away from extreme heat and oxidising agents.			
10.5 Incompatible mat	erials		e combustion is likely			
10.6 Hazardous decom products	position	monoxide,	olid and liquid particul H ₂ S, SO _x (sulphur oxic ed organic and inorgal	des) or sulphuric acid a		
SECTION 11: Toxicol	ogical Informati		g a g	P and man		
11.1 Information on to	xicological effect	s				
Acute toxicity						
Product / ingredient name	Result		Species	Dose	Exposure	
Distillate (Petroleum),	LC 50 Inhalati and mis		Rat	>2.18mg/l	4 hours	
hydro treated heavy paraffinic	LD 50 De	rmal	Rabbit	> 5000	_	
pararrime				mg/kg		
	LD 50 O	ral	Rat	>15000 mg/kg	_	
Irritation / corrosion				gg		
Skin						
Eye		No known	significant effects or	critical hazards.		
Respiratory						
Sensation						
Skin		No known significant effects or critical hazards.				
Respiratory						
Mutagenicity			ailable to indicate proc ater than 0.1 % are mu			
Carcinogenicity		The base oil(s) in this product is based on an severely hydrotreated distillate.				
Reproductive toxicity		The product should not be regarded as				
reproductive toxicity		a carcinogen. Contains no ingredient				
~		listed as toxic to reproduction.				
Specific target organ to exposure		Not classified				
Specific target organ toxicity – repeated exposure						
Aspiration hazard		Aspiration hazard – Category 1				
Information on likely routes of exposure		Not available				
Potential acute health	effects					
Eye contact		Eye contact may cause redness and transient pain.				
		Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.				
Skin contact		No known significant effects or critical hazards.				
Ingestion		May be fat	al if swallowed and	enters airways.		

Potential chronic health effects			
General	No known significant effects or critical hazards.		
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.		
Mutagenicity			
	No known significant effects or critical hazards.		
Teratogenicity			
Product / ingredient name			
Fertility effects			
Other information Specific hazard	Not available		
Section 12: Ecological Information			
12.1 Toxicity	Not expected to be harmful to aquatic organisms.		
12.2 Persistence and degradability	Not inherently biodegradable.		
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.		
12.4 Mobility in soil	Not considered mobile.		
12.5 Results of PBT & vPvB assessment	Not applicable		
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.		
Section 13: Disp <mark>osal Considerations</mark>			

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

	Where possible (e.g. in the absence of relevant contamination),	
	recycling of used substance is feasible and recommended. This	
Product Methods of disposal	substance can be burned or incinerated, subject to national/local	
	authorisations, relevant contamination limits, safety regulations and air quality	
	legislation. Contaminated or waste substance (not directly recyclable):	
	Disposal can be carried out directly, or by delivery to qualified waste	
	handlers. National legislation may identify a specific organisation, and/or	
	prescribe composition limits and methods for recovery or disposal	
Hazardous waste	Yes	
European waste catalogue (EWC) Waste	Waste designation.	
Code 13 03 07*		
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible.	
intelliges of disposal	Waste packaging should be recycled. Incineration or landfill should only	
	be considered when recycling is not feasible.	
Section 14: Transport Information		

International transport regulations

	ADR / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	_	_	_	_
14.3 Transport hazard class(es)	_	_	_	_

14.4 Packing group	_	_	_	_
14.5 Environmental	No	No	No	No
hazards				
Additional Information	_	_	_	_

14.6 Special precautions for user oils

14.7 Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV – List of substances subject to authorisation Annex XIV Substances of very high concern	None of the components are listed	
Annex XVII—Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.	Not applicable	
International Lists National Inventory	Inventory name	
Australia	Australian Inventory of Chemical Substances (AICS) – Yes	
Canada	Domestic Substances List (DSL) – Yes	
Cultud	Non-Domestic Substances List (NDSL) – No	
China	Inventory of Existing Chemical Substances in China (IECSC) – Yes	
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes	
	European List of Notified Chemical Substances (ELINCS) – No	
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes	
Korea	Existing Chemicals List (ECL) – Yes	
New Zealand	New Zealand Inventory – Yes	
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes	
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes	

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16: Other Information

Revision comments	
Legend to abbreviations	
ADR	European agreement concerning the international carriage of dangerous good by road.
RID	Regulations agreement concerning the international carriage of dangerous good by rail.
IMDG Code	International Maritime Dangerous Goods Code.
ICAO	International Civil Aviation Organization.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].
SCBA	Self-Contained Breathing Apparatus.

Safety Data-Sheet

REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/seller to ensure that the information content in the material data sheet is relevant to the product manufactured/handledorsold by, as the case may be. R/K PETROLEUMS makes now arranties expressed or implied in respect of the adequacy of this document for any particular purpose.



ARKO WOP 150

Section 1: Identification of the Substan	Section 1: Identification of the Substance / Mixture				
1.1 Product identifier					
Product name	ARKO WOP 150				
Product description	White Oil Pharma				
Product type	White Mineral Oil				
MARPOL Annex-1	****				
1.2 Identified uses					
Distribution of substance	Industrial				
Formulation & (re)packing of substance	Industrial A				
& mixtures					
Manufacture of substance	Industrial				
Functional fluids	Industrial				
Section 2: Hazard Identification					
4-	Health	1			
Extreme	Flammability	1			
3-High	Reactivity	0			
2-Moderate	Special	-			
1-Slight	/				
Section 3: Compostion / Information o	n Ingredients				
Product / Ingredient name	Distillates (Petroleum)	mixture of hydro-treated hydrocarbons			
Section 4: First Aid Measures					
Inhalation exposure	Remove to fresh air & provide oxygen, if breathing is difficult. Contact physician				
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.				
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.				
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.				
Protection first-aiders		supply. Ensure adequate ventilation and check that a available before entry into confined spaces.			
Section 5: Fi <mark>re</mark> Fighting Measures					
5.1 Extinguishing media					
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.				
5.2 Special hazards arising from the su					
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.				
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.				
5.3 Advice for firefighters					
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.				

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H_2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

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Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.		
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.		
Section 7: Handling and Storage			
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.		
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.		
7.3 Specific end use(s) — Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable / combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.		
Section 8: Expo <mark>sure Controls / Persons</mark>			
	nould be consulted for any available use-specific information provided in		
8.1 Control parameters			
Occupational exposure limits			
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.		
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume [Air contaminant]		
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances		

	will also be required.	
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.	
Individual protection measures		
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.	
Eye / face protection	Recommended: Safety glasses with side shields.	
Skin protection		
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.	
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.	
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.	
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.	
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	
Section 9: Physical and Chemical Prop	·	
Appearance	Transparent, colorless oily liquid	
Physical state	Liquid	
Colour	Water White	
Odor	Petroleum odor	
Odour threshold	Not available	
рН	Not applicable	
Pour point	<-12 °C (ASTM D 97)	
Flash point	> 210 °C	
Evaporation rate	Not available	
Flammability (solid, gas)	Not available	
Flammability limits in air (lower), % by volume	Not available	
Flammability limits in air (upper), % by volume	Not available	
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)	
Density (g/ml)	0.830 – 0.0.860 max at 29.5 °C	
Solubility (water)	Insoluble in water	
Partition coefficient (n-octanol/water)	Not available	
Decomposition temperature	No data	
Auto-ignition temperature	>250 °C	
Kinematic viscosity at 40 °C (104 °F)	27.0 – 33.0 cSt (ASTM D 445)	
Explosive properties	No data	
Oxidising properties	No data	

DMSO extractable compounds for base		<3.0 %				
oil substance(s) according to IP346						
Section 10: Stability ar	nd Reactivity					
· ·		No specific ingredients	c test data related to 1 s.	reactivity available for	or this product or its	
10.2 Chemical stability	7	Stable und	er normal conditions			
10.3 Possibility of haza	rdous reactions	Under nor	mal conditions of stor	rage and use, hazard	ous reactions will not	
		occur. Oxi	dising agent.			
10.4 Conditions to avoi	id	Keep away	from extreme heat a	and oxidising agents.		
10.5 Incompatible mat	erials	-	e combustion is likely			
10.6 Hazardous decom products	position	monoxide,	airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.			
SECTION 11: Toxicol	ogical Informati	on				
11.1 Information on to	xicological effect	ts				
Acute toxicity						
Product / ingredient name	Resul		Species	Dose	Exposure	
Distillate (Petroleum),	LC 50 Inhalati		Rat	>2.18mg/l	4 hours	
hydro treated heavy	LD 50 De	rmal	Rabbit	> 5000	_	
paraffinic				mg/kg		
	LD 50 C	ral	Rat	>15000 mg/kg	_	
Irritation / corrosion						
Skin						
Eye		No known	significant effects or	critical hazards.		
Respiratory						
Sensation						
Skin		.,,,				
Respiratory		No known significant effects or critical hazards.				
Mutagenicity		No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic.				
Carcinogenicity		The base oil(s) in this product is based on an severely hydrotreated distillate.				
Dangadyativa tawiait		The product should not be regarded as				
Reproductive toxicity		a carcinogen. Contains no ingredient				
		listed as toxic to reproduction.				
Specific target organ to exposure	oxicity – single	Not classified				
Specific target organ toxicity – repeated						
exposure		Assisting bound Cate 1				
Aspiration hazard		Aspiration hazard – Category 1				
Information on likely routes of exposure		Not available				
Potential acute health effects						
Eye contact		Eye contact may cause redness and transient pain.				
Inhalation		Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.				
Skin contact		No known significant effects or critical hazards.				
Ingestion		May be fatal if swallowed and enters airways.				

Potential chronic health effects		
General	No known significant effects or critical hazards.	
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.	
Mutagenicity		
	No known significant effects or critical hazards.	
Teratogenicity		
Product / ingredient name		
Fertility effects		
Other information Specific hazard	Not available	
Section 12: Ecological Information		
12.1 Toxicity	Not expected to be harmful to aquatic organisms.	
12.2 Persistence and degradability	Not inherently biodegradable.	
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.	
12.4 Mobility in soil	Not considered mobile.	
12.5 Results of PBT & vPvB Assessment Not applicable		
12.6 Other adverse effects Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.		
Section 13: Disposal Considerations		

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

constitued for any available use specific infe	inition provided in the Exposure Section 10(8).		
Product Methods of disposal	Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal		
Hazardous w <mark>aste</mark>	Yes		
European waste catalogue (EWC) Waste Code 13 03 07*	Waste designation.		
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.		
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.		
Section 14: Transport Information			

Section 14: Transport Information

International transport regulations

	international transport regulations				
	ADR / RID	ADN	IMO / IMDG	ICAO / IATA	
			Classification	Classification	
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated	
14.2 UN proper shipping name	_	_	_	_	
14.3 Transport hazard class(es)	_	_	_	_	

14.4 Packing group	_	_	_	_
14.5 Environmental	No	No	No	No
hazards				
Additional Information	_	<u>—</u>	_	_

14.6 Special precautions for user oils

14.7 Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV – List of substances subject to authorisation Annex XIV Substances of very high concern	None of the components are listed	
Annex XVII—Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.	Not applicable	
International Lists National Inventory	Inventory name	
Australia	Australian Inventory of Chemical Substances (AICS) – Yes	
Canada	Domestic Substances List (DSL) – Yes	
Canada	Non-Domestic Substances List (NDSL) – No	
China	Inventory of Existing Chemical Substances in China (IECSC) – Yes	
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes	
	European List of Notified Chemical Substances (ELINCS) – No	
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes	
Korea	Existing Chemicals List (ECL) – Yes	
New Zealand	New Zealand Inventory – Yes	
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes	
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes	

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16: Other Information

Revision comments		
Legend to abbreviations		
ADR	European agreement concerning the international carriage of dangerous good by road.	
RID	Regulations agreement concerning the international carriage of dangerous good by rail.	
IMDG Code	International Maritime Dangerous Goods Code.	
ICAO	International Civil Aviation Organization.	
IATA	International Air Transport Association.	
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.	
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].	
SCBA	Self-Contained Breathing Apparatus.	

Safety Data-Sheet

REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/seller to ensure that the information content in the material data sheet is relevant to the product manufactured/handledorsold by, as the case may be. R/K PETROLEUMS makes now arranties expressed or implied in respect of the adequacy of this document for any particular purpose.



ARKO WOP 180

Section 1: Identification of the Substan	Section 1: Identification of the Substance / Mixture				
1.1 Product identifier					
Product name	ARKO WOP 180				
Product description	White Oil Pharma				
Product type	White Mineral Oil				
MARPOL Annex-1	***				
1.2 Identified uses					
Distribution of substance	Industrial				
Formulation & (re)packing of substance	Industrial A				
& mixtures					
Manufacture of substance	Industrial				
Functional fluids	Industrial				
Section 2: Hazard Identification					
4-	Health	Î			
Extreme	Flammability	1			
3-High	Reactivity	0			
2-Moderate	Special	_			
1-Slight	1				
Section 3: Compostion / Information o	n Ingredients				
Product / Ingredient name	Distillates (Petroleum) mixture of hydro-treated hydrocarbons				
Section 4: First Aid Measures	Distinates (Fetroleum)	mixture of flydro-fredeed flydrocarbons			
Inhalation exposure	Remove to fresh air & r	provide oxygen, if breathing is difficult. Contact			
initiatation exposure	physician				
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.				
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.				
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.				
Protection first-aiders		supply. Ensure adequate ventilation and check that a available before entry into confined spaces.			
Section 5: Fi <mark>re</mark> Fighting Measures					
5.1 Extinguishing media					
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.				
5.2 Special hazards arising from the su	bstance or mixture				
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.				
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.				
5.3 Advice for firefighters					
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.				

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H_2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

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Salet	y Data	I-SHEE

Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.	
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.	
Section 7: Handling and Storage		
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.	
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.	
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable / combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.	
Section 8: Exposure Controls / Persons		
	nould be consulted for any available use-specific information provided in	
8.1 Control parameters		
Occupational exposure limits		
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume.	
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume [Air contaminant]	
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres—Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres—Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres—General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances	

	will also be required.
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.
Individual protection measures	
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.
Eye / face protection	Recommended: Safety glasses with side shields.
Skin protection	
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Section 9: Physical and Chemical Prop	1
Appearance	Transparent, colorless oily liquid
Physical state	Liquid
Colour	Water White
Odor	Petroleum odor
Odour threshold	Not available
pH	Not applicable
Pour point	<-12 °C (ASTM D 97)
Flash point	> 210 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by volume	Not available
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)
Density (g/ml)	0.830 – 0.0.860 max at 29.5 °C
Solubility (water)	Insoluble in water
Partition coefficient (n-octanol/water)	Not available
Decomposition temperature	No data
Auto-ignition temperature	>250 °C
Kinematic viscosity at 40 °C (104 °F)	32.0 – 38.0 cSt (ASTM D 445)
Explosive properties	No data
Oxidising properties	No data ■ ~ 54 ~ ■

DMSO extractable comoil substance(s) according		<3.0 %		·	
Section 10: Stability an					
10.1 Reactivity	ia reactivity	No specific	c test data related to 1	reactivity available fo	or this product or its
10.2 Chemical stability	7	Stable und	er normal conditions		
10.3 Possibility of haza		Under nor	mal conditions of sto	rage and use, hazard	ous reactions will not
·			dising agent.		
10.4 Conditions to avo	id	Keep away	from extreme heat a	and oxidising agents.	
10.5 Incompatible mat	erials	Incomplete	e combustion is likely	to give rise to a compl	ex mixture of
10.6 Hazardous decom products	position	monoxide,	olid and liquid particul H ₂ S, SO _x (sulphur oxided organic and inorgal	des) or sulphuric acid a	
SECTION 11: Toxicol	ogical Informati				
11.1 Information on to	xicological effect	ts			
Acute toxicity					
Product / ingredient name	Result		Species	Dose	Exposure
Distillate (Petroleum),	LC 50 Inhalati and mis		Rat	>2.18mg/l	4 hours
hydro treated heavy paraffinic	LD 50 De	rmal	Rabbit	> 5000	_
pararrine				mg/kg	
	LD 50 O	ral	Rat	>15000 mg/kg	_
Irritation / corr <mark>osion</mark>					
Skin					
Eye		No known	significant effects or	critical hazards.	
Respiratory					
Sensation					
Skin		No known	significant effects or	critical hazards	
Respiratory		NO KIIOWII	significant effects of	Cifucal nazarus.	~
Mutagenicity			ailable to indicate proc ater than 0.1 % are mu		
Carcinogenicity			il(s) in this product i		
Reproductive toxicity		The product should not be regarded as			
reproductive toxicity		a carcinogen. Contains no ingredient			
		listed as toxic to reproduction.			
Specific target organ to exposure	oxicity – single	Not classif	ïed		
Specific target organ to exposure	oxicity – repeated				
Aspiration hazard		Aspiration hazard – Category 1			
Information on likely reexposure	y routes of Not available				
Potential acute health	effects				
Eye contact		•	et may cause redness		
Inhalation Inhalation of oil mist or vapours at elevated to respiratory irritation.		s at elevated tempera	atures may cause		
Skin contact No known significant effects or critical hazards.					
Ingestion May be fatal if swallowed and enters airways.					

Potential chronic health effects		
General	No known significant effects or critical hazards.	
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.	
Mutagenicity		
	No known significant effects or critical hazards.	
Teratogenicity		
Product / ingredient name		
Fertility effects		
Other information Specific hazard	Not available	
Section 12: Ecological Information		
12.1 Toxicity	Not expected to be harmful to aquatic organisms.	
12.2 Persistence and degradability	Not inherently biodegradable.	
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.	
12.4 Mobility in soil	Not considered mobile.	
12.5 Results of PBT & vPvB assessment	Not applicable	
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.	
Section 13: Disp <mark>osal C</mark> onsiderations		

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Where possible (e.g. in the absence of relevant contamination)

	Where possible (e.g. in the absence of relevant contamination),	
	recycling of used substance is feasible and recommended. This	
Product Methods of disposal	substance can be burned or incinerated, subject to national/local	
	authorisations, relevant contamination limits, safety regulations and air quality	
	legislation. Contaminated or waste substance (not directly recyclable):	
	Disposal can be carried out directly, or by delivery to qualified waste	
	handlers. National legislation may identify a specific organisation, and/or	
	prescribe composition limits and methods for recovery or disposal	
Hazardous waste	Yes	
European waste catalogue (EWC) Waste	Waste designation.	
Code 13 03 07*		
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible.	
intelliges of disposal	Waste packaging should be recycled. Incineration or landfill should only	
	be considered when recycling is not feasible.	
Section 14: Transport Information		

international transport reg	guiauons			
	ADR / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	_	_	_	_
14.3 Transport hazard class(es)	_	_	_	_

14.4 Packing group	_	_	_	_
14.5 Environmental	No	No	No	No
hazards				
Additional Information	_	_	_	_

14.6 Special precautions for user oils

14.7 Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV – List of substances subject to authorisation Annex XIV Substances of very high concern	None of the components are listed	
Annex XVII—Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.	Not applicable	
International Lists National Inventor	Inventory name	
Australia	Australian Inventory of Chemical Substances (AICS) – Yes	
Canada	Domestic Substances List (DSL) – Yes	
Cumudu	Non-Domestic Substances List (NDSL) – No	
China	Inventory of Existing Chemical Substances in China (IECSC) – Yes	
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes	
	European List of Notified Chemical Substances (ELINCS) – No	
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes	
Korea	Existing Chemicals List (ECL) – Yes	
New Zealand	New Zealand Inventory – Yes	
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes	
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes	

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16: Other Information

Section 10. Other information		
Revision comments		
Legend to abbreviations		
ADR	European agreement concerning the international carriage of dangerous good by road.	
RID	Regulations agreement concerning the international carriage of dangerous good by rail.	
IMDG Code	International Maritime Dangerous Goods Code.	
ICAO	International Civil Aviation Organization.	
IATA	International Air Transport Association.	
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.	
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].	

Safety Data-Sheet

SCBA	Self-Contained Breathing Apparatus.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/seller to ensure that the information content in the material data sheet is relevant to the product manufactured/handledorsold by, as the case may be. R/K PETROLEUMS makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.



ARKO WOP 200

Section 1: Identification of the Substance / Mixture			
1.1 Product identifier			
Product name	ARKO WOP 200		
Product description	White Oil Pharma		
Product type	White Mineral Oil		
MARPOL Annex-1	****		
1.2 Identified uses			
Distribution of substance	Industrial		
Formulation & (re)packing of substance	Industrial		
& mixtures			
Manufacture of substance	Industrial		
Functional fluids	Industrial		
Section 2: Hazard Identification			
4-	Health	1	
Extreme	Flammability	1	
3-High	Reactivity	0	
2-Moderate	Special	-	
1-Slight	/		
Section 3: Compostion / Information or	n Ingredients		
Product / Ingredient name	Distillates (Petroleum)	mixture of hydro-treated hydrocarbons	
Section 4: First Aid Measures			
Inhalation exposure	Remove to fresh air & p physician	rovide oxygen, if breathing is difficult. Contact	
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.		
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.		
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.		
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.		
Section 5: Fire Fighting Measures			
5.1 Extinguishing media			
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.		
5.2 Special hazards arising from the su			
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.		
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.		
5.3 Advice for firefighters			
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.		

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H_2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

Safety		

Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.	
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.	
Section 7: Handling and Storage		
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.	
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.	
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.	
the Exposure Scenario(s).	nould be consulted for any available use-specific information provided in	
8.1 Control parameters Occupational exposure limits		
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.	
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume [Air contaminant]	
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances	

	will also be required.	
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.	
Individual protection measures		
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.	
Eye / face protection	Recommended: Safety glasses with side shields.	
Skin protection		
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.	
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.	
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.	
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.	
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	
Section 9: Physical and Chemical Prop	·	
Appearance	Transparent, colorless oily liquid	
Physical state	Liquid	
Colour	Water White	
Odor	Petroleum odor	
Odour threshold	Not available	
pH	Not applicable	
Pour point	<-12 °C (ASTM D 97)	
Flash point	> 220 °C	
Evaporation rate	Not available	
Flammability (solid, gas)	Not available	
Flammability limits in air (lower), % by volume	Not available	
Flammability limits in air (upper), % by volume	Not available	
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)	
Density (g/ml)	0.830 – 0.0.860 max at 29.5 °C	
Solubility (water)	Insoluble in water	
Partition coefficient (n-octanol/water)	Not available	
Decomposition temperature	No data	
Auto-ignition temperature	>250 °C	
Kinematic viscosity at 40 °C (104 °F)	39.0 – 45.0 cSt (ASTM D 445)	
Explosive properties	No data	
Oxidising properties	No data	

DMSO extractable compounds for base				
	<3.0 %			
oil substance(s) according to IP346				
Section 10: Stability and Reactivity	1			
10.1 Reactivity	No specific ingredients	c test data related to r s.	reactivity available for	or this product or its
10.2 Chemical stability	Stable und	er normal conditions		
10.3 Possibility of hazardous reactions	Under nor	mal conditions of stor	rage and use, hazard	ous reactions will not
<u> </u>	occur. Oxi	dising agent.		
10.4 Conditions to avoid	1	from extreme heat a		
10.5 Incompatible materials		e combustion is likely		
10.6 Hazardous decomposition products	monoxide,	lid and liquid particul H ₂ S, SO _x (sulphur oxic d <mark>organi</mark> c and inorgar	des) or sulphuric acid a	
SECTION 11: Toxicological Informati	on			
11.1 Information on toxicological effec	ts			
Acute toxicity				
Product / ingredient Resul	t	Species	Dose	Exposure
Distillate (Petroleum), LC 50 Inhalat and mis		Rat	>2.18mg/l	4 hours
hydro treated heavy LD 50 De	rmal	Rabbit	> 5000	_
paraffinic			mg/kg	
LD 50 C	Oral	Rat	>15000	_
			mg/kg	
Irritation / corrosion				
Skin				
Eye	No known	significant effects or	critical hazards.	
Respiratory				
Sensation				
Skin	N - 1	· · · · · · · · · · · · · · · · · · ·		
Respiratory	No known	significant effects or	critical nazards.	
Mutagenicity		nilable to indicate prod ater than 0.1 % are mu		
Carcinogenicity		il(s) in this product is		
Danus du ativa taviaita	The product should not be regarded as			
Reproductive toxicity	a carcinogen. Contains no ingredient			
	listed as toxic to reproduction.			
Specific target organ toxicity – single exposure	Not classified			
Specific target organ toxicity – repeated				
exposure				
Aspiration hazard	Aspiration hazard – Category 1			
Information on likely routes of Not available				
exposure				
Potential acute health effects				
Eye contact	Eye contact may cause redness and transient pain.			
Inhalation	Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.		itures may cause	
Skin contact	No known significant effects or critical hazards.			
Ingestion			enters airways.	

Potential chronic health effects		
General	No known significant effects or critical hazards.	
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.	
Mutagenicity		
	No known significant effects or critical hazards.	
Teratogenicity		
Product / ingredient name		
Fertility effects		
Other information Specific hazard	Not available	
Section 12: Ecological Information		
12.1 Toxicity	Not expected to be harmful to aquatic organisms.	
12.2 Persistence and degradability	Not inherently biodegradable.	
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.	
12.4 Mobility in soil	Not considered mobile.	
12.5 Results of PBT & vPvB assessment	Not applicable	
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.	
Section 13: Disposal Considerations		

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Product Methods of disposal	Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal
Hazardous waste	Yes
European waste catalogue (EWC) Waste	Waste designation.
Code 13 03 07*	
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Section 14: Transport Information	• 5

Section 14: Transport Information

International transport regulations

	ADR / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	_	_	_	_
14.3 Transport hazard class(es)	_	_	_	_

14.4 Packing group	_	_	_	_
14.5 Environmental	No	No	No	No
hazards				
Additional Information	_	<u>—</u>	_	_

14.6 Special precautions for user oils

14.7 Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

11084141011 (110) 1101 12 017 2000 (111111)))	
Annex XIV – List of substances subject to authorisation Annex XIV Substances of very high concern	None of the components are listed	
Annex XVII—Restrictions on the		
manufacture, placing on the market and	Not applicable	
use of certain dangerous substances,		
mixtures and articles.		
International Lists National Inventory	Inventory name	
Australia	Australian Inventory of Chemical Substances (AICS) – Yes	
Canada	Domestic Substances List (DSL) – Yes	
Curiada	Non-Domestic Substances List (NDSL) – No	
China	Inventory of Existing Chemical Substances in China (IECSC) – Yes	
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes	
	European List of Notified Chemical Substances (ELINCS) – No	
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes	
Korea	Existing Chemicals List (ECL) – Yes	
New Zealand	New Zealand Inventory – Yes	
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes	
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes	

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16: Other Information

Revision comments		
Legend to abbreviations		
ADR	European agreement concerning the international carriage of dangerous good by road.	
RID	Regulations agreement concerning the international carriage of dangerous good by rail.	
IMDG Code	International Maritime Dangerous Goods Code.	
ICAO	International Civil Aviation Organization.	
IATA	International Air Transport Association.	
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.	
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].	

Safety Data-Sheet

SCBA	Self-Contained Breathing Apparatus.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/seller to ensure that the information content in the material data sheet is relevant to the product manufactured/handledorsold by, as the case may be. R/K PETROLEUMS makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.



ARKO WOP 250

Section 1: Identification of the Substar	nce / Mixture			
1.1 Product identifier				
Product name	ARKO WOP 250			
Product description	White Oil Pharma			
Product type	White Mineral Oil			
MARPOL Annex-1	****			
1.2 Identified uses				
Distribution of substance	Industrial			
Formulation & (re)packing of substance	Industrial A			
& mixtures				
Manufacture of substance	Industrial			
Functional fluids	Industrial			
Section 2: Hazard Identification				
4-	Health	1		
Extreme	Flammability	1		
3-High	Reactivity	0		
2-Moderate	Special	-		
1-Slight	/			
Section 3: Compost <mark>ion / Information o</mark>	n Ingredients			
Product / Ingredient name	Distillates (Petroleum)	mixture of hydro-treated hydrocarbons		
Section 4: First Aid Measures				
Inhalation exposure	Remove to fresh air & p physician	rovide oxygen, <mark>if</mark> breathing is difficult. Contact		
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.			
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.			
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.			
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.			
Section 5: Fi <mark>re</mark> Fighting Measures				
5.1 Extinguishing media				
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.			
5.2 Special hazards arising from the su	bstance or mixture			
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.			
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.			
5.3 Advice for firefighters				
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.			

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H_2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

Safety	T .	a .

Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.		
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.		
Section 7: Handling and Storage			
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.		
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.		
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.		
Section 8: Exposure Controls / Persons			
	nould be consulted for any available use-specific information provided in		
8.1 Control parameters			
Occupational exposure limits			
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m ³ 8 hours. Form: mist and fume STEL: 3 mg/m ³ 15 minutes. Form: mist and fume.		
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume [Air contaminant]		
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres—Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres—Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres—General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances		

	will also be required.	
8.2 Exposure control Appropriate engineering controls	Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.	
Individual protection measures		
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.	
Eye / face protection	Recommended: Safety glasses with side shields.	
Skin protection		
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.	
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.	
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.	
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.	
Environmental exposure control	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	
Section 9: Physical and Chemical Prop	erties	
Appearance	Transparent, colorless oily liquid	
Physical state	Liquid	
Colour	Water White	
Odor	Petroleum odor	
Odour threshold	Not available	
рН	Not applicable	
Pour point	< -12 °C (ASTM D 97)	
Flash point	> 230 °C	
Evaporation rate	Not available	
Flammability (solid, gas)	Not available	
Flammability limits in air (lower), % by volume	Not available	
Flammability limits in air (upper), % by volume	Not available	
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)	
Density (g/ml)	0.830 – 0.0.860 max at 29.5 °C	
Solubility (water)	Insoluble in water	
Partition coefficient (n-octanol/water)	Not available	
Decomposition temperature	No data	
Auto-ignition temperature	>300 °C	
Kinematic viscosity at 40 °C (104 °F)	40.0 – 45.0 cSt (ASTM D 445)	
Explosive properties	No data	

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Oxidising properties		No data			
DMSO extractable comoil substance(s) according		<3.0 %			
Section 10: Stability an					
10.1 Reactivity		No specific test data related to reactivity available for this product or ingredients.		e for this product or its	
10.2 Chemical stability		Stable und	ler normal conditions	}	
10.3 Possibility of hazardous reactions		Under normal conditions of storage and use, hazardous reactions will not occur. Oxidising agent.			
10.4 Conditions to avo	id	Keep away	y from extreme heat a	and oxidising ager	its.
10.5 Incompatible mat	erials		e combustion is likely		
10.6 Hazardous decomposition products		airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.			
SECTION 11: Toxicol	ogical Informati	on			
11.1 Information on to	xicological effect	ts			
Acute toxicity					
Product / ingredient name	Result		Species	Dose	Exposure
Distillate (Petroleum),			Rat	>2.18mg/l	4 hours
hydro treated heavy paraffinic LD 50 De		rmal	Rabbit	> 5000 mg/kg	_
		ral	Rat	>15000 mg/kg	-
Irritation / corrosion					
Skin					
Eye		No known significant effects or critical hazards.			
Respiratory					
Sensation					N.
Skin		No known significant effects or critical hazards.			
Respiratory					
Mutagenicity		No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic.		xic.	
Carcinogenicity		The base oil(s) in this product is based on an severely hydrotreated distillate.			
Reproductive toxicity		The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction.			
Specific target organ to exposure	oxicity – single	Not classified			

respiratory irritation.

Aspiration hazard – Category 1

Eye contact may cause redness and transient pain.

No known significant effects or critical hazards.

Inhalation of oil mist or vapours at elevated temperatures may cause

Not available

Specific target organ toxicity – repeated

Information on likely routes of

Potential acute health effects

exposure

exposure

Eye contact

Skin contact

Inhalation

Aspiration hazard

Ingestion	May be fatal if swallowed and enters airways.		
Potential chronic health effects			
General	No known significant effects or critical hazards.		
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate. The product should not be regarded as a carcinogen.		
Mutagenicity			
	No known significant effects or critical hazards.		
Teratogenicity			
Product / ingredient name			
Fertility effects			
Other information Specific hazard	Not available		
Section 12: Ecological Information			
12.1 Toxicity	Not expected to be harmful to aquatic organisms.		
12.2 Persistence and degradability	Not inherently biodegradable.		
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.		
12.4 Mobility in soil	Not considered mobile.		
12.5 Results of PBT & vPvB assessment	Not applicable		
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.		
Section 13: Disp <mark>osa</mark> l Considerations			
	neric advice and guidance. The list of Identified Uses in Section 1 should be formation provided in the Exposure Scenario(s).		

Product Methods of disposal	Where possible (e.g. in the absence of relevant contamination),	
	recycling of used substance is feasible and recommended. This	
	substance can be burned or incinerated, subject to national/local	
	authorisations, relevant contamination limits, safety regulations and air quality	
	legislation. Contaminated or waste substance (not directly recyclable):	
	Disposal can be carried out directly, or by delivery to qualified waste	
	handlers. National legislation may identify a specific organisation, and/or	
	prescribe composition limits and methods for recovery or disposal	
Hazardous waste	Yes	
European waste catalogue (EWC) Waste	Waste designation.	
Code 13 03 07*		
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible.	
ivications of disposar	Waste packaging should be recycled. Incineration or landfill should only	
	be considered when recycling is not feasible.	
Section 14: Transport Information		

Section 14: Transport Information

International transport regulations

international transport regulations				
	ADR / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	_	_	_	_
14.3 Transport hazard	_	_	_	_

class(es)				
14.4 Packing group	_	_	_	_
14.5 Environmental	No	No	No	No
hazards				
Additional Information	_	_	_	_

14.6 Special precautions for user oils

14.7 Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

110841411011 (20) 1101 12017 2000 (112110	211)		
Annex XIV – List of substances subject to authorisation Annex XIV Substances of very high concern	None of the components are listed		
Annex XVII—Restrictions on the			
manufacture, placing on the market and	Not applicable		
use of certain dangerous substances,			
mixtures and articles.			
International Lists National Inventory	Inventory name		
Australia	Australian Inventory of Chemical Substances (AICS) – Yes		
Canada	Domestic Substances List (DSL) – Yes		
Curitud	Non-Domestic Substances List (NDSL) – No		
China	Inventory of Existing Chemical Substances in China (IECSC) – Yes		
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes		
	European List of Notified Chemical Substances (ELINCS) – No		
Japan	Inventory of Existing and New Chemical Substances (ENCS) – Yes		
Korea	Existing Chemicals List (ECL) – Yes		
New Zealand	New Zealand Inventory – Yes		
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes		
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory – Yes		

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16: Other Information

Section 10. Other information	
Revision comments	
Legend to abbreviations	
ADR	European agreement concerning the international carriage of dangerous good by road.
RID	Regulations agreement concerning the international carriage of dangerous good by rail.
IMDG Code	International Maritime Dangerous Goods Code.
ICAO	International Civil Aviation Organization.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].

SCBA	Self-Contained Breathing Apparatus.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

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ARKO WOP 350

Section 1: Identification of the Substar	nce / Mixture		
1.1 Product identifier			
Product name	ARKO WOP 350		
Product description	White Oil Pharma		
Product type	White Mineral Oil		
MARPOL Annex-1	****		
1.2 Identified uses	<u> </u>		
Distribution of substance	Industrial		
Formulation & (re)packing of substance	Industrial		
& mixtures			
Manufacture of substance	Industrial		
Functional fluids	Industrial		
Section 2: Hazard Identification			
4-	Health	1	
Extreme	Flammability	1	
3-High	Reactivity	0	
2-Moderate	Special	_	
1-Slight	7		
Section 3: Compostion / Information o	n Ingredients		
Product / Ingredient name		mixture of hydro-treated hydrocarbons	
Section 4: First Aid Measures	Distillates (Fetroleull)	mixture of flydro-treated flydrocarbons	
	Damaya to frash air & r	rovide evygen if breathing is difficult. Contact	
Inhalation exposure	Remove to fresh air & provide oxygen, if breathing is difficult. Contact physician		
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.		
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.		
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.		
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that safe and breathing area is available before entry into confined spaces.		
Section 5: Fire Fighting Measures			
5.1 Extinguishing media			
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.		
5.2 Special hazards arising from the su			
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.		
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.		
5.3 Advice for firefighters			
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.		

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H_2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

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-	IPIV	1121		mee

Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.		
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.		
Section 7: Handling and Storage			
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.		
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.		
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.		
Section 8: Exposure Controls / Persons	Protect from sunlight.		
	nould be consulted for any available use-specific information provided in		
8.1 Control parameters			
Occupational exposure limits			
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume.		
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume [Air contaminant]		
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres—Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres—Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres—General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances		

	will also be required.
8.2 Exposure control	Mechanical ventilation and local exhaust will reduce exposure via the air.
Appropriate engineering controls	Use oil resistant material in construction of handling equipment. Store under
	recommended conditions and if heated, temperature control equipment
	should be used to avoid overheating.
Individual protection measures	Week hands forcemes and force the nearly often handling showing
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of
riygione measures	the working period. Ensure that eyewash stations and safety showers are
	close to the workstation location. Wash contaminated clothing before
	reuse.
Eye / face protection	Recommended: Safety glasses with side shields.
Skin protection	
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.
Body protection	Wear protective clothing if there is a risk of skin contact. Change
	contaminated clothes at the end of working shift.
Other skin protection	Appropriate footwear and any additional skin protection measures should
Other skin protection	be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
	Respirator selection must be based on known or anticipated exposure levels,
Respiratory protection	the hazards of the product and the safe working limits of the selected
1 31	respirator. Use a properly fitted, particulate filter respirator complying with
	an approved standard if a risk assessment indicates this is necessary.
	Emissions from ventilation or work process equipment should be checked
Environmental exposure control	to ensure they comply with the requirements of environmental protection
	legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions
	to acceptable levels.
Section 9: Physical and Chemical Prop	
Appearance	Transparent, colorless oily liquid
Physical state	Liquid
Colour	Water White
Odor	Petroleum odor
Odour threshold	Not available
рН	Not applicable
Melting point / Pour point	< -12 °C (ASTM D 97)
Flash point	> 230 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by	Not available
volume	27
Flammability limits in air (upper), % by	Not available
Vanour pressure	<0.1 kPa (20 °C) (Mineral oil ASTM D 5101) (CONCAWE 2010)
Vapour pressure Density (g/ml)	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010) 0.840 – 0.0.890 max at 29.5 °C
Solubility (water)	Insoluble in water
Dolability (water)	moduote m water

			ifety Data-Sneet		
Partition coefficient (n-octanol/water)		Not available			
Decomposition temperature		No data			
Auto-ignition temperature		>300 °C			
Kinematic viscosity at 40 °C (104 °F)		64.0 – 74.0	cSt (ASTM D 445)		
Explosive properties		No data			
Oxidising properties		No data			
DMSO extractable comp	L .	<3.0 %			
oil substance(s) accordin					
Section 10: Stability ar	nd Reactivity				
10.1 Reactivity		No specific ingredients	c test data related to 1 s.	eactivity available f	or this product or its
10.2 Chemical stability	7	Stable und	er normal conditions		
10.3 Possibility of haza	rdous reactions		ma <mark>l con</mark> ditions of stor dising agent.	rage and use, hazard	ous reactions will not
10.4 Conditions to avoi	id		from extreme heat a	and oxidising agents.	
10.5 Incompatible mat	erials		ecombustion is likely		
10.6 Hazardous decom			lid and liquid particul		
products	position		H ₂ S, SO _x (sulph <mark>ur</mark> oxid	_	and
			d organic and ino <mark>rg</mark> ar	nic comp <mark>ounds.</mark>	
SECTION 11: Toxicol					
11.1 Information on to	xicological effect	ts			
Acute toxicity					
Product / ingredient name	Result	t	Species	Dose	Exposure
Distillate (Petroleum),	LC 50 Inhalati		Rat	>2.18mg/l	4 hours
hydro treated he <mark>avy</mark> paraffinic	LD 50 Dermal		Rabbit	> 5000 mg/kg	_
	LD 50 C	ral	Rat	>15000 mg/kg	_
Irritation / corrosion				mg/kg	J
Skin					
Eye		No known significant effects or critical hazards.			
Respiratory					
Sensation Sensition					
Skin					
Respiratory		No known significant effects or critical hazards.			
•		No data available to indicate product or any components			
Mutagenicity		present greater than 0.1% are multigene or genotoxic.			
Carcinogenicity	-	The base oil(s) in this product is based on an severely hydrotreated			
		distillate. The product should not be regarded as			
Reproductive toxicity		The product should not be regarded as a carcinogen. Contains no ingredient			
		listed as toxic to reproduction.			
Specific target organ toxicity – single		Not classified			
Specific target organ toxicity – repeated					
exposure	Aleny – repeated				
Aspiration hazard		Aspiration hazard – Category 1			
Information on likely re	outes of	Not available			
exposure		1.55 W. W. W.			

Potential acute health effects			
Eye contact	Eye contact may cause redness and transient pain.		
Inhalation	Inhalation of oil mist or vapours at elevated temperatures may cause		
	respiratory irritation.		
Skin contact	No known significant effects or critical hazards.		
Ingestion	May be fatal if swallowed and enters airways.		
Potential chronic health effects			
General	No known significant effects or critical hazards.		
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate.		
Caremogementy	The product should not be regarded as a carcinogen.		
Mutagenicity			
Triatagementy			
	No known significant effects or critical hazards.		
Teratogenicity			
Product / ingredient name			
Fertility effects			
Other information Specific hazard	Not available		
Section 12: Ecological Information			
12.1 Toxicity	Not expected to be harmful to aquatic organisms.		
12.2 Persistence and degradability	Not inherently biodegradable.		
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.		
12.4 Mobility in soil	Not considered mobile.		
12.5 Results of PBT & vPvB	Not applicable		
assessment			
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing		
12.0 Other auverse effects	physical damage to organisms. Oxygen transfer could also be		
	impaired.		
Section 13: Disp <mark>osal C</mark> onsiderations			

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

consulted for any available use-specific info	ormation provided in the Exposure Scenario(s).
Product Methods of disposal	Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal
Hazardous waste	Yes
European waste catalogue (EWC) Waste Code 13 03 07*	Waste designation.
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Section 14: Transport Information	

International transport regulations					
	ADR / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification	
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated	
14.2 UN proper shipping name	_	_	_	_	
14.3 Transport hazard class(es)	_	_	_	_	
14.4 Packing group					
14.5 Environmental hazards	No	No	No	No	
Additional Information	_	A -		_	
14.6 Special precautions f	or user oils				
14.7 Transport in bulk acc		f MARPOL 73/78 an	nd the IBC Code		
Section 15: Regulatory Info					
15.1 Safety, health and env		ons / legislation speci	fic for the substance	or mixture EU	
Regulation (EC) No. 1907/2					
Annex XIV – List of substancto authorisation Annex XIV Substances of very high con-	None of	f the components are l	isted		
Annex XVII—Restrictions or manufacture, placing on the ruse of certain dangerous substantitures and articles.	nthe narket and Not app	Not applicable			
International Lists Nationa	al Inventory Invento	ory name			
Australia	ustralia Australian Inventory of Chemical Substances (AICS) – Yes			CS) – Yes	
Canada	Domest	Domestic Substances List (DSL) – Yes			
	Non-Domestic Substances List (NDSL) – No				
China		ry of Existing Chemic			
Europe		European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes			
	Europea	an List of Notified Che	emical Substances (E	LINCS) – No	
Japan	Invento	ry of Existing and Ne	w Chemical Substanc	es (ENCS) – Yes	
Korea	Existing	Existing Chemicals List (ECL) – Yes			
New Zealand		New Zealand Inventory – Yes			
Philippines	Philippi Yes	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes			
United States & Puerto Rico		Toxic Substances Control Act (TSCA) Inventory – Yes			
*A "Yes" indicates that all c	omponents of this pro	oduct comply with the	inventory requiremen	nts administered by	
the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory					
administered by the governing country(s). Section 16: Other Information					
Revision comments					
Legend to abbreviations					
ADR	-	European agreement concerning the international carriage of dangerous good by road.			
RID	Regulat	Regulations agreement concerning the international carriage of dangerous good by rail.			

IMDG Code

International Maritime Dangerous Goods Code.

ICAO	International Civil Aviation Organization.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].
SCBA	Self-Contained Breathing Apparatus.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/seller to ensure that the information content in the material data sheet is relevant to the product manufactured/handledorsoldby, as the case may be. R K PETROLEUMS makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.



ARKO WOP 500

Section 1: Identification of the Substan	ce / Mixture		
1.1 Product identifier			
Product name	ARKO WOP 500		
Product description	White Oil Pharma		
Product type	White Mineral Oil		
MARPOL Annex-1	****		
1.2 Identified uses			
Distribution of substance	Industrial		
Formulation & (re)packing of substance	Industrial		
& mixtures			
Manufacture of substance	Industrial		
Functional fluids	Industrial		
Section 2: Hazard Identification			
4-	Health	1	
Extreme	Flammability	1	
3-High	Reactivity	0	
2-Moderate	Special	-	
1-Slight	/		
Section 3: Compostion / Information of	n Ingredients		
Product / Ingredient name	Distillates (Petroleum)	mixture of hydro-treated hydrocarbons	
Section 4: First Aid Measures			
Inhalation exposure	Remove to fresh air & provide oxygen, if breathing is difficult. Contact physician		
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.		
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.		
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.		
Protection first-aiders	Disconnecting electrical supply. Ensure adequate ventilation and check that a safe and breathing area is available before entry into confined spaces.		
Section 5: Fire Fighting Measures			
5.1 Extinguishing media			
Unsuitable extinguishing media		rbon dioxide. Do not use direct water and wet burning product. They may spread the fire. y on the surface.	
5.2 Special hazards arising from the su			
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.		
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.		
5.3 Advice for firefighters			
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.		

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H_2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

Safety	T .	a .

Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.		
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.		
Section 7: Handling and Storage			
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.		
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.		
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.		
Section 8: Exposure Controls / Person			
•	nould be consulted for any available use-specific information provided in		
8.1 Control parameters			
Occupational exposure limits			
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume.		
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume [Air contaminant]		
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance		

	will also be required.
8.2 Exposure control	Mechanical ventilation and local exhaust will reduce exposure via the air.
Appropriate engineering controls	Use oil resistant material in construction of handling equipment. Store under
	recommended conditions and if heated, temperature control equipment
	should be used to avoid overheating.
Individual protection measures	XX
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of
Trygrene measures	the working period. Ensure that eyewash stations and safety showers are
	close to the workstation location. Wash contaminated clothing before
	reuse.
Eye / face protection	Recommended: Safety glasses with side shields.
Skin protection	
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.
Body protection	Wear protective clothing if there is a risk of skin contact. Change
- 1	contaminated clothes at the end of working shift.
Other skin protection	Appropriate footwear and any additional skin protection measures should
Other skin protection	be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
	Respirator selection must be based on known or anticipated exposure levels,
Respiratory protection	the hazards of the product and the safe working limits of the selected
	respirator. Use a properly fitted, particulate filter respirator complying with
	an approved standard if a risk assessment indicates this is necessary.
	Emissions from ventilation or work process equipment should be checked
Environmental exposure control	to ensure they comply with the requirements of environmental protection
V/	legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions
	to acceptable levels.
Section 9: Physical and Chemical Prop	
Appearance	Transparent, colorless oily liquid
Physical state	Liquid
Colour	Water White
Odor	Petroleum odor
Odour threshold	Not available
рН	Not applicable
Melting point / Pour point	< -12 °C (ASTM D 97)
Flash point	> 240 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Flammability limits in air (lower), % by	Not available
volume	NI-4
Flammability limits in air (upper), % by volume	Not available
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)
Density (g/ml)	0.850 – 0.0.890 max at 29.5 °C
Solubility (water)	Insoluble in water
- · · · · · · · · · · · · · · · · · · ·	

Partition coefficient (n-octanol/water) Decomposition temperature No data Auto-ignition temperature No data No data No data Oxidising properties Oxidising properties Oxidising properties Oxidising properties Oxidising properties Oxidising properties Oxidising according to 1P346 Section 10: Stability and Reactivity In 1. Reactivity Oxidising according to 1P346 Section 10: Stability and Reactivity Oxidising according to 1P346 Section 10: A conditions to avoid Oxidising according to 1P346 Section 10: A conditions to avoid Oxidising according to 1P346 Section 10: A conditions to avoid Oxidising according to 1P346 Section 10: A conditions to avoid Oxidising according to 1P346 Section 10: A conditions to avoid Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditions of storage and use, hazardous reactions will occur. Oxidising according to 1P346 Section 10: A conditi				ifety Data-Sneet		
Auto-ignition temperature Kinematic viscosity at 40 °C (104 °F) 80.0 – 9.0.0 cSt (ASTM D 445) Explosive properties No data Section 10: Stability and Reactivity 10.1 Reactivity Stable under normal conditions 10.2 Chemical stability Stable under normal conditions Under normal conditions of storage and use, hazardous reactions will occur. Oxidising agents. Incompatible materials Incompatible materials Incompatible materials Incompatible materials Incompatible or discovery of the folial and incompatible or discovery of the	Partition coefficient (n-c	octanol/water)	Not availal	ble		
Kinematic viscosity at 40 °C (104 °F) 80.0 9.0 cSt (ASTM D 445) Explosive properties No data DMSO extractable compounds for base oil substance(s) according to IP346 Section 10: Stability and Reactivity 10.1 Reactivity 10.2 Chemical stability 10.3 Possibility of hazardous reactions 10.4 Conditions to avoid 10.5 Incompatible materials 10.6 Hazardous decomposition products 10.1 Information on toxicological Information 11.1 Information on toxicological effects Acute toxicity Product / ingredient Distillate (Petroleum), hydro treated heavy paraffinic LC 50 Inhalation dusts and mists Distillate (Petroleum), hydro treated heavy paraffinic LD 50 Oral Rat > 15000 — Irritation / corrosion Skin Respiratory Mutagenicity No data No data related to reactivity available for this product or ingredients are data or data o			No data			
Explosive properties			>300 °C			
Oxidising properties DMSO extractable compounds for base oil substance(s) according to IP346 Section 10: Stability and Reactivity 10.1 Reactivity No specific test data related to reactivity available for this product or ingredients. 10.2 Chemical stability 10.3 Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will occur. Oxidising agent. 10.4 Conditions to avoid Keep away from extreme heat and oxidising agents. Incomplete combustion is likely to give rise to a complex mixture of airbornesolid and liquid particulates, gases, including carbon monoxide, HS, SO, (subpluro oxides) or sulphuric acid and unidentified organic and inorganic compounds. SECTION 11: Toxicological Information 11.1 Information on toxicological effects Acute toxicity Product / ingredient Result Species Dose Exposure name LC 50 Inhalation dusts Rat >2.18mg/l 4 hours and mists Distillate (Petroleum), hydro treated heavy paraffinic LD 50 Oral Rat >1.5000 — Irritation / corrosion Skin No known significant effects or critical hazards. Respiratory Sensation Skin No known significant effects or critical hazards. Respiratory Mutagenicity Nodata available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The base oil(s) in this product is based on an severely hydrotreated distillate. Specific target organ toxicity — single Not classified	Kinematic viscosity at 4	0 °C (104 °F)	80.0 – 90.0	cSt (ASTM D 445)		
DMSO extractable compounds for base oil substance(s) according to IP346 Section 10: Stability and Reactivity 10.1 Reactivity 10.2 Chemical stability 10.3 Possibility of hazardous reactions 10.4 Conditions to avoid 10.5 Incompatible materials 10.6 Hazardous decomposition products 10.1 Information on toxicological Information 11.1 Information on toxicological effects Acute toxicity Product / ingredient Iname Ic So Inhalation dusts and mists In Do Dermal Distillate (Petroleum), hydro treated heavy paraffinic LD 50 Oral Rat Sizillate (Petroleum) Skin Eye No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or genotoxic. The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity - single Not classified Not classified Not classified Not classified Not classified Not classified	Explosive properties		No data			
oil substance(s) according to IP346 Section 10: Stability and Reactivity 10.1 Reactivity No specific test data related to reactivity available for this product or ingredients. 10.2 Chemical stability 10.3 Possibility of hazardous reactions occur. Oxidising agents. 10.4 Conditions to avoid 10.5 Incompatible materials 10.6 Ilazardous decomposition products 10.6 Ilazardous decomposition products SECTION 11: Toxicological Information monoxide, H.S., SO, (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds. SECTION 11: Toxicological Information 11.1 Information on toxicological effects Acute toxicity Product / ingredient Result Species Dose Exposure and mists Distillate (Petroleum), hydro treated heavy paraffinic LC 50 Inhalation dusts and mists LD 50 Dermal Rabbit > 5000 Irritation / corrosion Skin No known significant effects or critical hazards. Respiratory No known significant effects or critical hazards. No	Oxidising properties		No data			
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10.1 Reactivity						
ingredients. 10.2 Chemical stability 10.3 Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will occur. Oxidising agent. 10.4 Conditions to avoid 10.5 Incompatible materials 10.6 Hazardous decomposition products 10.6 Hazardous decomposition products 10.1 Information on toxicological Information 11.1 Information on toxicological effects Acute toxicity Product / ingredient name 1.2 C 50 Inhalation dusts and mists 1.2 Species Dose Exposure 1.3 Dose Dormal Rabbit > 5000 mg/kg 1.4 hours and mists 1.5 Stin No known significant effects or critical hazards. Respiratory Sensation Skin No known significant effects or critical hazards. Respiratory Mutagenicity Product / ingredient present greater than 0.1 % are multigene or genotoxic. The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity Thorocal society of the product or should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity – single Not classified Not classified		nd Reactivity	I			
Under normal conditions of storage and use, hazardous reactions will occur. Oxidising agent. 10.4 Conditions to avoid Keep away from extreme heat and oxidising agents. 10.5 Incompatible materials Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds. SECTION 11: Toxicological Information	10.1 Reactivity				reactivity available for	or this product or its
10.4 Conditions to avoid Keep away from extreme heat and oxidising agents.	10.2 Chemical stability	7	Stable und	er normal conditions		
10.4 Conditions to avoid Keep away from extreme heat and oxidising agents.	10.3 Possibility of haza	rdous reactions			rage and use, hazard	ous reactions will not
Incompatible materials Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds. SECTION 11: Toxicological Information	10.4 Conditions to avoi	id			and oxidising agents.	
airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO ₈ (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds. SECTION 11: Toxicological Information 11.1 Information on toxicological effects Acute toxicity Product / ingredient name LC 50 Inhalation dusts Rat >2.18mg/l 4 hours Distillate (Petroleum), hydro treated heavy paraffinic LD 50 Dermal Rabbit >5000 — mg/kg LD 50 Oral Rat >15000 — mg/kg Irritation / corrosion Skin Eye Respiratory Sensation Skin Respiratory Mutagenicity No known significant effects or critical hazards. No known significant effects or critical parameters or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity — single Not classified						
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unidentified organic and inorganic compounds. SECTION 11: Toxicological Information 11.1 Information on toxicological effects		position	monoxide,	H ₂ S, SO _x (sulphur oxid	des) or sulphuric acid	and
Acute toxicity Product / ingredient name Distillate (Petroleum), hydro treated heavy paraffinic LC 50 Inhalation dusts and mists LD 50 Oral Rat >15000 — Irritation / corrosion Skin Eye No known significant effects or critical hazards. Respiratory Sensation Skin Respiratory Mutagenicity No known significant effects or critical hazards. No known significant effects or critical hazards. Reproductive toxicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity Specific target organ toxicity — single Not classified	P10000		unidentifie	d organic and ino <mark>r</mark> gar	nic comp <mark>ounds.</mark>	
Acute toxicity Product / ingredient name Distillate (Petroleum), hydro treated heavy paraffinic LD 50 Inhalation dusts and mists LD 50 Oral Rat Species Dose Exposure Acute toxicity LC 50 Inhalation dusts and mists Rat Source Source Rat Source Source Rat Source Rat Source Sourc	SECTION 11: Toxicol	o <mark>gical Informati</mark>	on			
Product / ingredient name LC 50 Inhalation dusts and mists Rat >2.18mg/l 4 hours	11.1 Information on to	xicological effect	ts			
name Distillate (Petroleum), hydro treated heavy paraffinic LD 50 Dermal Rabbit Source Rabbit LD 50 Oral Rat Sl5000 Rat Rat Sl5000 Respiratory Sensation Skin Respiratory Sensation Skin Respiratory Mutagenicity No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Respiratory Mutagenicity No known significant effects or critical hazards. The product or any components present greater than 0.1 % are multigene or genotoxic. The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity — single Not classified	Acute toxicity					
Distillate (Petroleum), hydro treated heavy paraffinic LD 50 Dermal Rabbit Sound mg/kg LD 50 Oral Rat Slin Eye No known significant effects or critical hazards. Respiratory Sensation Skin Respiratory Mutagenicity No known significant effects or critical hazards. Respiratory Mutagenicity No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity — single Not classified		Result	t ,	Species	Dose	Exposure
paraffinic LD 50 Oral Rat Stin Eye No known significant effects or critical hazards. Respiratory Sensation Skin Respiratory Mutagenicity No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity — single Not classified	` '		8			
Irritation / corrosion Skin Eye Respiratory Sensation Skin Respiratory Mutagenicity Mutagenicity Carcinogenicity Reproductive toxicity Reproductive toxicity Specific target organ toxicity — single No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity — single Not classified		LD 50 Dermal		Rabbit		_
Irritation / corrosion Skin Eye No known significant effects or critical hazards. Respiratory Sensation Skin No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity — single Not classified		LD 50 C		Rat	>15000	_
Skin Eye Respiratory Sensation Skin Respiratory Mutagenicity No known significant effects or critical hazards. No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity – single Not classified	Irritation / corrosion				mg/ng	V
Eye Respiratory Sensation Skin Respiratory Mutagenicity No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity — single Not classified						
Respiratory Skin Respiratory Mutagenicity No known significant effects or critical hazards. No known significant effects or critical hazards. No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity – single Not classified			No known significant effects or critical hazards.			
Skin Respiratory Mutagenicity No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity — single Not classified						
Skin Respiratory Mutagenicity No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity – single Not classified						
Respiratory Mutagenicity No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity – single Not classified						
Mutagenicity No data available to indicate product or any components present greater than 0.1 % are multigene or genotoxic. Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity — single Not classified			No known significant effects or critical hazards.			
Carcinogenicity The base oil(s) in this product is based on an severely hydrotreated distillate. Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity – single Not classified						
Reproductive toxicity The product should not be regarded as a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity – single Not classified	Carcinogenicity		The base oil(s) in this product is based on an severely hydrotreated			
a carcinogen. Contains no ingredient listed as toxic to reproduction. Specific target organ toxicity – single Not classified	D 1 (1) 1 (1)					
Specific target organ toxicity – single Not classified	Reproductive toxicity		a carcinogen. Contains no ingredient			
Specific target organ toxicity – repeated	1 0 0	xicity – repeated				
Againstian barand Catagory 1	*		A oninct:	horand Catara	1	
Aspiration hazard Aspiration hazard — Category 1 Information on likely routes of exposure Not available	· · · · · · · · · · · · · · · · · · ·					

Potential acute health effects			
Eye contact	Eye contact may cause redness and transient pain.		
Inhalation	Inhalation of oil mist or vapours at elevated temperatures may cause		
	respiratory irritation.		
Skin contact	No known significant effects or critical hazards.		
Ingestion	May be fatal if swallowed and enters airways.		
Potential chronic health effects			
General	No known significant effects or critical hazards.		
Carcinogenicity	The base oil(s) in this product is based on an severely hydrotreated distillate.		
Caremogementy	The product should not be regarded as a carcinogen.		
Mutagenicity			
Muagementy			
	No known significant effects or critical hazards.		
Teratogenicity			
•			
Product / ingredient name			
Fertility effects			
Other information Specific hazard	Not available		
Section 12: Ecological Information			
12.1 Toxicity	Not expected to be harmful to aquatic organisms.		
12.2 Persistence and degradability	Not inherently biodegradable.		
12.3 Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.		
12.4 Mobility in soil	Not considered mobile.		
12.5 Results of PBT & vPvB	Not applicable		
assessment	*		
12.6 Other adverse effects	Insoluble in water. Spills may form a film on water surfaces causing		
12.0 Other duverse effects	physical damage to organisms. Oxygen transfer could also be		
	impaired.		
Section 13: Disposal Considerations			

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

consulted for any available use-specific info	ormation provided in the Exposure Scenario(s).
Product Methods of disposal	Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal
Hazardous waste	Yes
European waste catalogue (EWC) Waste Code 13 03 07*	Waste designation.
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Section 14: Transport Information	

International transport regulations					
	ADR / RID	ADN	IMO / IMDG	ICAO / IATA	
			Classification	Classification	
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated	
14.2 UN proper shipping name	_	_	_	_	
14.3 Transport hazard class(es)	_	_	_	_	
14.4 Packing group	_	_	_	_	
14.5 Environmental hazards	No	No	No	No	
Additional Information	_	<u>A</u> -	_	_	
14.6 Special precautions f	or user oils				
14.7 Transport in bulk ac		f MARPOL 73/78 an	nd the IBC Code		
Section 15: Regulatory Info					
15.1 Safety, health and env		ons / legislation speci	fic for the substance	or mixture EU	
Regulation (EC) No. 1907/2					
Annex XIV – List of substancto authorisation Annex XIV		f the components are 1	isted		
Substances of very high con-					
Annex XVII—Restrictions or manufacture, placing on the ruse of certain dangerous substantitures and articles.	nthe narket and Not app	Not applicable			
International Lists Nationa	al Inventory Invento	ory name			
Australia		ian Inventory of Chem	nical Substances (AIC	CS) – Yes	
Canada	Domestic Substances List (DSL) – Yes				
Canada	Non-D	omestic Substances L	List (NDSL) – No		
China	Invento	ry of Existing Chemic	cal Substances in Chir	na (<mark>IECSC) – Yes</mark>	
Europe		European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes			
	Europea	an List of Notified Ch	emical Substances (E	LINCS) – No	
Japan	Invento	ry of Existing and Ne	w Chemical Substanc	es (ENCS) – Yes	
Korea	Existing	Existing Chemicals List (ECL) – Yes			
New Zealand	New Ze	New Zealand Inventory – Yes			
Philippines	Philippi Yes	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes			
United States & Puerto Rico	Toxic S	Toxic Substances Control Act (TSCA) Inventory – Yes			
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by				nts administered by	
the governing country(s)	. 63	1 4 11 11	. 6	41	
A "No" indicates that one or n administered by the governin		e product are not listed	or exempt from listing	on the inventory	
Section 16: Other Informa	•				
Revision comments					
Legend to abbreviations					
ADR		European agreement concerning the international carriage of dangerous good by road.			
RID	Regulat	Regulations agreement concerning the international carriage of dangerous good by rail.			

IMDG Code

International Maritime Dangerous Goods Code.

ICAO	International Civil Aviation Organization.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].
SCBA	Self-Contained Breathing Apparatus.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

Disclaimer: Information contained in this material data sheet is believed to be reliable, but no representation, guarantee or warranties of any kind made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/seller to ensure that the information content in the material data sheet is relevant to the product manufactured/handledorsoldby, as the case may be. R K PETROLEUMS makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.



ARKO WOP 600

Section 1: Identification of the Substar	nce / Mixture		
1.1 Product identifier			
Product name	ARKO WOP 600		
Product description	White Oil Pharma		
Product type	White Mineral Oil		
MARPOL Annex-1	****		
1.2 Identified uses			
Distribution of substance	Industrial		
Formulation & (re)packing of substance	Industrial A		
& mixtures			
Manufacture of substance	Industrial		
Functional fluids	Industrial		
Section 2: Hazard Identification			
4-	Health	1	
Extreme	Flammability	1	
3-High	Reactivity	0	
2-Moderate	Special		
1-Slight	7		
Section 3: Compostion / Information o	n Ingredients		
Product / Ingredient name		mixture of hydro-treated hydrocarbons	
Section 4: First Aid Measures	Distillates (Petroleum) mixture of hydro-treated hydrocarbons		
Inhalation exposure	Pamove to fresh air & r	rovide ovygen if breathing is difficult. Contact	
ilinalation exposure	Remove to fresh air & provide oxygen, if breathing is difficult. Contact physician		
Skin contact	Remove contaminated clothing. Flush skin with water. Wash skin thoroughly with mild soap & water. If irritation occurs, call a physician.		
Swallowing or other	Do not induce vomiting. In general no treatment is necessary unless large quantities are ingested. Get medical advice.		
Eye contact	Rinse continuously with water for several minutes. Get medical attention, if irritation persists.		
Protection first-aiders		supply. Ensure adequate ventilation and check that a available before entry into confined spaces.	
Section 5: Fire Fighting Measures			
5.1 Extinguishing media			
Unsuitable extinguishing media	Use dry powder, foam, carbon dioxide. Do not use direct water and wet chemicals, or water on the burning product. They may spread the fire. Use foam simultaneously on the surface.		
5.2 Special hazards arising from the su			
Hazards from the substance or mixture	Flammable liquids in pressurised containers may rupture and when exposed to heat, creating a highly flammable vapour cloud.		
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulphur oxides) or sulphuric acid and unidentified organic and inorganic compounds.		
5.3 Advice for firefighters			
Special precautions for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.		

Special protective equipment for firefighters

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For emergency responders

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: Full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.

Note: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H₂S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

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Large spill	Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.
6.4 Reference to other sections	See Section 1: For emergency contact information. See Section 8: For information on appropriate personal protective equipment. See Section 13: For additional waste treatment information.
Section 7: Handling and Storage	
7.1 Advice on general information – hygiene, storage	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.
7.2 Conditions for safe storage including any incompatibilities	Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store separately from oxidising agents.
7.3 Specific end use(s) – Recommendations	Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable / combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Protect from sunlight.
Section 8: Exposure Controls / Persons	
	nould be consulted for any available use-specific information provided in
8.1 Control parameters	
Occupational exposure limits	
Product / Ingredient name	AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume.
Exposure limits values	Distillates, mixture of hydrocarbons AFS 2015:7 (Sweden, 12/2015). TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume [Air contaminant]
If this product contains ingredients with exposure limits, personal, a atmosphere or biological monitoring may be required to determine effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should to monitoring standards, such as the following: European Standard 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) Europe Standard EN 14042 (Workplace atmospheres – Guide for the app and use of procedures for the assessment of exposure to chemical a biological agents) European Standard EN 482 (Workplace atmospheres – Guide for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substitutions.	

	will also be required.	
	1	
8.2 Evmoguno control	Mechanical ventilation and local exhaust will reduce exposure via the air.	
8.2 Exposure control Appropriate engineering controls	Use oil resistant material in construction of handling equipment. Store under	
rippropriate engineering controls	recommended conditions and if heated, temperature control equipment	
	should be used to avoid overheating.	
Individual protection measures		
Hygiana maaguras	Wash hands, forearms and face thoroughly after handling chemical	
Hygiene measures	products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are	
	close to the workstation location. Wash contaminated clothing before	
	reuse.	
Eye / face protection	Recommended: Safety glasses with side shields.	
Skin protection		
Hand protection	4 – 8 hours (breakthrough time): nitrile rubber.	
Body protection	Wear protective clothing if there is a risk of skin contact. Change	
and the second	contaminated clothes at the end of working shift.	
	Appropriate footwear and any additional skin protection measures should	
Other skin protection	be selected based on the task being performed and the risks involved and	
	should be approved by a specialist before handling this product.	
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected	
respiratory protection	respirator. Use a properly fitted, particulate filter respirator complying with	
	an approved standard if a risk assessment indicates this is necessary.	
	Emissions from ventilation or work process equipment should be checked	
Environmental exposure control	to ensure they comply with the requirements of environmental protection	
	legislation. In some cases, fume scrubbers, filters or engineering	
	modifications to the process equipment will be necessary to reduce emissions	
Section 9: Physical and Chemical Prop	to acceptable levels.	
Appearance Physical state	Transparent, colorless oily liquid	
Physical state Colour	Liquid Water White	
Odor	Petroleum odor	
Odour threshold	Not available	
pH Pour point	Not applicable	
Flash point	< -12 °C (ASTM D 97) > 250 °C	
Evaporation rate	> 250 °C Not available	
Flammability (solid, gas)	Not available Not available	
Flammability limits in air (lower), % by	Not available	
volume		
Flammability limits in air (upper), % by	Not available	
volume		
Vapour pressure	≤ 0,1 kPa (20 °C) (Mineral oil, ASTM D 5191), (CONCAWE, 2010)	
Density (g/ml)	0.850 – 0.0.890 max at 29.5 °C	
Solubility (water)	Insoluble in water	

	Safety Data-Sneet				
Partition coefficient (n-octanol/water)		Not available			
Decomposition tempera	ecomposition temperature				
Auto-ignition temperature		>300 °C			
Kinematic viscosity at 40 °C (104 °F)		90.0 - 115	.0 cSt (ASTM D 445)	
Explosive properties		No data			
Oxidising properties					
DMSO extractable comp	-	<3.0 %			
oil substance(s) accordin					
Section 10: Stability ar	d Reactivity				
10.1 Reactivity		No specific ingredients	e test data related to 1 s.	eactivity available f	or this product or its
10.2 Chemical stability	•	Stable und	er normal conditions		
10.3 Possibility of haza	rdous reactions		ma <mark>l con</mark> ditions of stor dising agent.	rage and use, hazard	ous reactions will not
10.4 Conditions to avoi	id		from extreme heat a	and oxidising agents.	
10.5 Incompatible mat			ecombustion is likely		
10.6 Hazardous decom			lid and liquid particul		
products	position		H ₂ S, SO _x (sulphur oxid		
products		unidentifie	d organic and ino <mark>rg</mark> ar	nic compounds.	
SECTION 11: Toxicol	o <mark>gical Informati</mark>	on			
11.1 Information on to	xicological effect	ts			
Acute toxicity		'			
Product / ingredient name	Result	t ,	Species	Dose	Exposure
Distillate (Petroleum),	Distillate (Petroleum), hydro treated heavy paraffinic LC 50 Inhalati and mis		Rat	>2.18mg/l	4 hours
			Rabbit	> 5000 mg/kg	_
	LD 50 O	ral	Rat	>15000 mg/kg	_
Irritation / corrosion				mg/kg	V
Skin					
		No known	significant effects or	critical hazards.	
Eye			Ü		
Respiratory					
Sensation					
Skin		No known significant effects or critical hazards.			
Respiratory	NT-1				
Mutagenicity		No data available to indicate product or any components present greater than 0.1% are multigene or genotoxic.			
Carcinogenicity		The base oil(s) in this product is based on an severely hydrotreated			
		distillate.			
Reproductive toxicity		The product should not be regarded as			
		a carcinogen. Contains no ingredient			
		listed as toxic to reproduction.			
Specific target organ toxicity – single		Not classified			
exposure					
Specific target organ to	xicity – repeated				
exposure		Assisting bound Core 1			
Aspiration hazard	outes of	Aspiration hazard – Category 1 Not available			
Information on likely re exposure	outes of	inot availal	DIE		

Eye contact may cause redness and transient pain.	
Inhalation of oil mist or vapours at elevated temperatures may cause	
respiratory irritation.	
No known significant effects or critical hazards.	
May be fatal if swallowed and enters airways.	
No known significant effects or critical hazards.	
The base oil(s) in this product is based on an severely hydrotreated distillate.	
The product should not be regarded as a carcinogen.	
No known significant effects or critical hazards.	
Not available	
Not expected to be harmful to aquatic organisms.	
Not inherently biodegradable.	
Bioaccumulation is unlikely to be significant because of the low water	
solubility of this product.	
Not considered mobile.	
Not applicable	
Insoluble in water. Spills may form a film on water surfaces causing	
physical damage to organisms. Oxygen transfer could also be	
impaired.	

Section 13: Disp<mark>osal C</mark>onsiderations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

constitued for any available abe specific fine	Timation provided in the Exposure Section 10(8).
Product Methods of disposal	Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorisations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organisation, and/or prescribe composition limits and methods for recovery or disposal
Hazardous waste	Yes
European waste catalogue (EWC) Waste Code 13 03 07*	Waste designation.
Packaging	Mineral-based non-chlorinated insulating and heat transmission oils.
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Section 14: Transport Information	

International transport reg	gulations				
	ADR / RID	ADN	IMO / IMDG Classification	ICAO / IATA Classification	
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated	
14.2 UN proper shipping name	_	_	_	_	
14.3 Transport hazard class(es)	_	_	_	_	
14.4 Packing group	_	_	_	_	
14.5 Environmental hazards	No	No	No	No	
Additional Information	_	A -	_	_	
14.6 Special precautions for	or user oils				
14.7 Transport in bulk ac		of MARPOL 73/78 ar	nd the IBC Code		
Section 15: Regulatory Info					
15.1 Safety, health and env		ons / legislation speci	fic for the substance	or mixture EU	
Regulation (EC) No. 1907/2					
Annex XIV – List of substancto authorisation Annex XIV Substances of very high con-	None of	None of the components are listed			
Annex XVII—Restrictions or manufacture, placing on the ruse of certain dangerous substantitures and articles.	nthe narket and Not app	Not applicable			
International Lists Nationa	al Inventory Invento	Inventory name			
Australia	Austral	ian Inventory of Chen	nical Substances (AIC	S) – Yes	
Canada	Domestic Substances List (DSL) – Yes				
	Non-Domestic Substances List (NDSL) – No				
China	Invento	Inventory of Existing Chemical Substances in China (IECSC) – Yes			
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS) – Yes		ical Substances		
	Europe	European List of Notified Chemical Substances (ELINCS) – No			
Japan		Inventory of Existing and New Chemical Substances (ENCS) – Yes			
Korea		Existing Chemicals List (ECL) – Yes			
New Zealand		New Zealand Inventory – Yes			
Philippines	Philippi Yes	Philippine Inventory of Chemicals and Chemical Substances (PICCS) – Yes			
United States & Puerto Rico Toxic Substances Contro					
*A "Yes" indicates that all c	components of this pro	oduct comply with the	inventory requiremen	nts administered by	
the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).					
Section 16: Other Information					
Revision comments					
Legend to abbreviations					
ADR	-	European agreement concerning the international carriage of dangerous good by road.			
RID	Regulat	Regulations agreement concerning the international carriage of dangerous good by rail.			

International Maritime Dangerous Goods Code.

IMDG Code

ICAO	International Civil Aviation Organization.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008].
SCBA	Self-Contained Breathing Apparatus.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006].
LC 50	Median lethal concentration.
LD 50	Median lethal dose.
PBT	Persistent, Bio accumulative and Toxic.

Regulation (EC) no 1907/2006, Annex II as Amended by Commission Regulation (EU) 2015/830

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***** CUTTING OILS

* MACHINE OILS

SILICONE EMULSION

GREASES

GEAR OILS

TRADERS & MARKETERS OF:-

UBRICATING OILS

❖ L.D.O & FURNACE OIL

❖ RUBBER PROCESS OILS

S BASE OILS

❖ PETROLEUM JELLY

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