

## **Certas Lubricant Solutions**

Part Number: EMS10 Version No: 1.2

Safety data sheet according to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Issue Date: **27/11/2023** Print Date: **27/11/2023** S.REACH.GB.EN

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

## 1.1. Product Identifier

HyperDrive KX ATF Dexron II		
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## 1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Use according to manufacturer's directions.
Uses advised against	No specific uses advised against are identified.

## 1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	Certas Lubricant Solutions	
Address	1st Floor, Allday House, Warrington Road, Birchwood, Warrington Cheshire WA3 6GR Great Britain	
Telephone	0800 685 685	
Fax	Not Available	
Website	Not Available	
Email	HSE.Sharedservice@certasenergy.co.uk	

#### 1.4. Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available

## **SECTION 2 Hazards identification**

#### 2.1. Classification of the substance or mixture

Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1]	Not Applicable

## 2.2. Label elements

Hazard pictogram(s)	Not Applicable
Signal word	Not Applicable

## Hazard statement(s)

Not Applicable

## Supplementary statement(s)

Not Applicable

## Precautionary statement(s) Prevention Not Applicable

Precautionary statement(s) Response

Not Applicable

## Precautionary statement(s) Storage

## Not Applicable

## Precautionary statement(s) Disposal

## Not Applicable **2.3. Other hazards**

2.3. Other hazards				
distillates, solvent dewaxed light paraffinic hydrotreated	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)			
lubricating oils, petroleum C20-50, hydrotreated neutral	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)			
tolyltriazole	etermined to have endocrine-disrupting properties according to Europe Regulation (EU) 528/2012, Europe Regulation (EU) 2017/2100, and urope Regulation (EU) 2018/605			
distillates, petroleum, light, hydrotreated	Determined to have endocrine-disrupting properties according to Europe Regulation (EU) 528/2012, Europe Regulation (EU) 2017/2100, and Europe Regulation (EU) 2018/605			
paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346)	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)			
paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346)	Determined to have endocrine-disrupting properties according to Europe Regulation (EU) 528/2012, Europe Regulation (EU) 2017/2100, and Europe Regulation (EU) 2018/605			
paraffinic distillate, heavy, hydrotreated (severe) (DMSO <3% w/w by IP 346)	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)			
lubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346)	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)			
10164 - 6cSt Group III Base Oil	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)			

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

## 3.1.Substances

See 'Composition on ingredients' in Section 3.2

## 3.2.Mixtures

1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
1. 64742-54-7.* 2.265-157-1 3.649-467-00-8 4.Not Available	0-50	paraffinic distillate, heavy, hydrotreated (severe) (DMSO <3% w/w by IP 346)	Aspiration Hazard Category 1; H304 <sup>[1]</sup>	Not Available	Not Available
1. 90640-97-4.* 2.292-620-5 3.649-490-00-3 4.Not Available	<1	distillates, solvent dewaxed light paraffinic hydrotreated	Aspiration Hazard Category 1; H304 <sup>[1]</sup>	Not Available	Not Available
1. 72623-87-1.* 2.276-738-4 3.649-483-00-5 4.Not Available	<1	lubricating oils. petroleum C20-50. hydrotreated neutral	Aspiration Hazard Category 1; H304 <sup>[1]</sup>	Not Available	Not Available
1. 64742-47-8 2.265-149-8 3.649-422-00-2 4.Not Available	<1	distillates, petroleum, light, hydrotreated [e]	Aspiration Hazard Category 1; H304 <sup>[2]</sup>	Not Available	Not Available
1. Not Available 2.Not Available 3.Not Available 4.Not Available	0.05-0.25	Thiophene. tetrahydro 1.1-dioxide. 3-(C9-11- isoalkyloxy) derivs C10-rich	Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H411 <sup>[1]</sup>	Not Available	Not Available
1. Not Available 2.Not Available 3.Not Available 4.Not Available	0.05-0.25	Reaction product of alkylthioalcohol and substituted phosphorus compound	Acute Toxicity (Dermal) Category 4, Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1; H312, H314, H318, H400, H410 <sup>[1]</sup>	Not Available	Not Available
1. Not Available 2.Not Available 3.Not Available 4.Not Available	<0.1	C16-18-(even numbered, saturated and unsaturated)-alkylamines	Acute Toxicity (Oral) Category 4, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 1, Serious Eye Damage/Eye Irritation Category 1, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1; H302, H304, H314, H318, H335, H373, H400, H410 <sup>[1]</sup>	Not Available	Not Available
1. Not Available 2.Not Available 3.Not Available	<0.1	N.N-bis(2-hydroxyethyl)- 3-[C16-18)alkoxy]- 1-propanamine	Skin Corrosion/Irritation Category 1C, Serious Eye Damage/Eye Irritation Category 1, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the	Not Available	Not Available

1. CAS No 2.EC No 3.Index No 4.REACH No		%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
4.Not Available				Aquatic Environment Long-Term Hazard Category 1; H314, H318, H400, H410 <sup>[1]</sup>		
1. 29385-43-1* 2.249-596-6 3.Not Available 4.Not Available		<0.1	tolyltriazole [e]	Acute Toxicity (Oral) Category 4, Reproductive Toxicity Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H302, H361d, H411, EUH066 <sup>[1]</sup>	Not Available	Not Available
1. 64742-53-6. 2.265-156-6 3.649-466-00-2 4.Not Available		<0.02	naphthenic distillate. light, hydrotreated (severe)	Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3; H336 <sup>[1]</sup>	Not Available	Not Available
1. 71819-51-7 2.Not Available 3.Not Available 4.Not Available		<0.02	C.I. Solvent Red 164	Reproductive Toxicity Category 2; H361f <sup>[1]</sup>	Not Available	Not Available
1. 64742-65-0.* 2.265-169-7 3.649-474-00-6 4.Not Available		0-50	paraffinic distillate. heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346) [e]	Not Classified <sup>[1]</sup>	Not Available	Not Available
1. 72623-87-1.* 2.276-738-4 3.649-483-00-5 4.Not Available		10-50	lubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3%, w/w - IP346)	Not Classified <sup>[1]</sup>	Not Available	Not Available
1. 72623-87-1* 2.276-738-4 3.649-483-00-5 4.Not Available		5-25	<u>10164 - 6cSt Group III</u> Base Oil	Not Classified <sup>[1]</sup>	Not Available	Not Available
	Legend:			ion drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 202 stance identified as having endocrine disrupting properties	0/1567; 3. Cla	ssification drawn

## **SECTION 4 First aid measures**

## 4.1. Description of first aid measures

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Eye Contact	<ul> <li>If this product comes in contact with eyes:</li> <li>Wash out immediately with water.</li> <li>If irritation continues, seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	If skin contact occurs: <ul> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>
Ingestion	<ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

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

See Section 11

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

Treat symptomatically.

## **SECTION 5 Firefighting measures**

#### 5.1. Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).Carbon dioxide.
- Water spray or fog Large fires only.

## 5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

## 5.3. Advice for firefighters

Fire Fighting

Alert Fire Brigade and tell them location and nature of hazard.

Continued...

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	Wear full body protective clothing with breathing apparatus.
	Prevent, by any means available, spillage from entering drains or water course.
	Use water delivered as a fine spray to control fire and cool adjacent area.
	Avoid spraying water onto liquid pools.
	DO NOT approach containers suspected to be hot.
	Cool fire exposed containers with water spray from a protected location.
	If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	<ul> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>May emit acrid smoke.</li> <li>Mists containing combustible materials may be explosive.</li> <li>Combustion products include:</li> <li>carbon dioxide (CO2)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>May emit corrosive fumes.</li> </ul>
	CARE: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.

## **SECTION 6 Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures See section 8

## 6.2. Environmental precautions

See section 12

## 6.3. Methods and material for containment and cleaning up

Minor Spills	<ul> <li>Remove all ignition sources.</li> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>Wipe up.</li> <li>Place in a suitable, labelled container for waste disposal.</li> </ul>
Major Spills	<ul> <li>Moderate hazard.</li> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>No smoking, naked lights or ignition sources.</li> <li>Increase ventilation.</li> <li>Stop leak if safe to do so.</li> <li>Contain spill with sand, earth or vermiculite.</li> <li>Collect recoverable product into labelled containers for recycling.</li> <li>Absorb remaining product with sand, earth or vermiculite.</li> <li>Collect solid residues and seal in labelled drums for disposal.</li> <li>Wash area and prevent runoff into drains.</li> <li>If contamination of drains or waterways occurs, advise emergency services.</li> </ul>

#### 6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## **SECTION 7 Handling and storage**

7.1. Precautions for safe hand	<ul> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> <li>DO NOT enter confined spaces until atmosphere has been checked.</li> <li>Avoid smoking, naked lights or ignition sources.</li> <li>Avoid contact with incompatible materials.</li> <li>When handling, DO NOT eat, drink or smoke.</li> <li>Keep containers securely sealed when not in use.</li> <li>Avoid physical damage to containers.</li> <li>Always wash hands with soap and water after handling.</li> <li>Work clothes should be laundered separately.</li> <li>Use good occupational work practice.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</li> <li>DO NOT allow clothing wet with material to stay in contact with skin</li> </ul>
Fire and explosion protection	See section 5
Other information	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>No smoking, naked lights or ignition sources.</li> </ul>

Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers.
Protect containers against physical damage and check regularly for leaks.
Observe manufacturer's storage and handling recommendations contained within this SDS. 7.2. Conditions for safe storage, including any incompatibilities Metal can or drum Suitable container Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. Storage incompatibility Avoid reaction with oxidising agents Hazard categories in accordance with Regulation Not Available (EC) No 1272/2008 Qualifying quantity (tonnes) of dangerous substances as Not Available referred to in Article 3(10) for the application of

## 7.3. Specific end use(s)

See section 1.2

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

#### 8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
lubricating oils, petroleum C20-50, hydrotreated neutral	Dermal 0.97 mg/kg bw/day (Systemic, Chronic) Inhalation 2.73 mg/m <sup>3</sup> (Systemic, Chronic) Inhalation 5.58 mg/m <sup>3</sup> (Local, Chronic) Oral 0.74 mg/kg bw/day (Systemic, Chronic) * Inhalation 1.19 mg/m <sup>3</sup> (Local, Chronic) *	9.33 mg/kg food (Oral)
tolyltriazole	Dermal 0.3 mg/kg bw/day (Systemic, Chronic) Inhalation 21.2 mg/m <sup>3</sup> (Systemic, Chronic) Dermal 0.01 mg/kg bw/day (Systemic, Chronic) * Inhalation 350 µg/m <sup>3</sup> (Systemic, Chronic) * Oral 0.01 mg/kg bw/day (Systemic, Chronic) *	0.008 mg/L (Water (Fresh)) 0.086 mg/L (Water - Intermittent release) 20 μg/L (Water (Marine)) 0.117 mg/kg sediment dw (Sediment (Fresh Water)) 0.292 mg/kg sediment dw (Sediment (Marine)) 18.7 μg/kg soil dw (Soil) 39.4 mg/L (STP)
paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346)	Dermal 0.97 mg/kg bw/day (Systemic, Chronic) Inhalation 2.73 mg/m <sup>3</sup> (Systemic, Chronic) Inhalation 5.58 mg/m <sup>3</sup> (Local, Chronic) Oral 0.74 mg/kg bw/day (Systemic, Chronic) * Inhalation 1.19 mg/m <sup>3</sup> (Local, Chronic) *	9.33 mg/kg food (Oral)
paraffinic distillate, heavy, hydrotreated (severe) (DMSO <3% w/w by IP 346)	Dermal 0.97 mg/kg bw/day (Systemic, Chronic) Inhalation 2.73 mg/m <sup>3</sup> (Systemic, Chronic) Inhalation 5.58 mg/m <sup>3</sup> (Local, Chronic) Oral 0.74 mg/kg bw/day (Systemic, Chronic) * Inhalation 1.19 mg/m <sup>3</sup> (Local, Chronic) *	9.33 mg/kg food (Oral)
lubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346)	Dermal 0.97 mg/kg bw/day (Systemic, Chronic) Inhalation 2.73 mg/m <sup>3</sup> (Systemic, Chronic) Inhalation 5.58 mg/m <sup>3</sup> (Local, Chronic) Oral 0.74 mg/kg bw/day (Systemic, Chronic) * Inhalation 1.19 mg/m <sup>3</sup> (Local, Chronic) *	9.33 mg/kg food (Oral)
10164 - 6cSt Group III Base Oil	Dermal 0.97 mg/kg bw/day (Systemic, Chronic) Inhalation 2.73 mg/m <sup>3</sup> (Systemic, Chronic) Inhalation 5.58 mg/m <sup>3</sup> (Local, Chronic) Oral 0.74 mg/kg bw/day (Systemic, Chronic) * Inhalation 1.19 mg/m <sup>3</sup> (Local, Chronic) *	9.33 mg/kg food (Oral)
naphthenic distillate, light, hydrotreated (severe)	Dermal 0.97 mg/kg bw/day (Systemic, Chronic) Inhalation 2.73 mg/m <sup>3</sup> (Systemic, Chronic) Inhalation 5.58 mg/m <sup>3</sup> (Local, Chronic) Oral 0.74 mg/kg bw/day (Systemic, Chronic) * Inhalation 1.19 mg/m <sup>3</sup> (Local, Chronic) *	9.33 mg/kg food (Oral)
C.I. Solvent Red 164	Dermal 0.04 mg/kg bw/day (Systemic, Chronic) Inhalation 0.07 mg/m <sup>3</sup> (Systemic, Chronic) Dermal 0.02 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.017 mg/m <sup>3</sup> (Systemic, Chronic) *	Not Available

\* Values for General Population

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Not Available						

## Not Applicable

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Emergency Limits				
Ingredient	TEEL-1	TEEL-2		TEEL-3
lubricating oils, petroleum C20-50, hydrotreated neutral	140 mg/m3	1,500 mg/m3		8,900 mg/m3
tolyltriazole	2 mg/m3	22 mg/m3		130 mg/m3
distillates, petroleum, light, hydrotreated	140 mg/m3	1,500 mg/m3		8,900 mg/m3
paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346)	140 mg/m3	1,500 mg/m3		8,900 mg/m3
paraffinic distillate, heavy, hydrotreated (severe) (DMSO <3% w/w by IP 346)	140 mg/m3	1,500 mg/m3		8,900 mg/m3
lubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346)	140 mg/m3	1,500 mg/m3		8,900 mg/m3
10164 - 6cSt Group III Base Oil	140 mg/m3	1,500 mg/m3		8,900 mg/m3
naphthenic distillate, light, hydrotreated (severe)	1,100 mg/m3	1,800 mg/m3		40,000 mg/m3
Ingredient	Original IDLH		Revised IDLH	
distillates, solvent dewaxed light paraffinic hydrotreated	Not Available		Not Available	
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11- isoalkyloxy) derivs., C10-rich	Not Available		Not Available	
Reaction product of alkylthioalcohol and substituted phosphorus compound	Not Available		Not Available	
C16-18-(even numbered, saturated and unsaturated)- alkylamines	Not Available		Not Available	
lubricating oils, petroleum C20-50, hydrotreated neutral	2,500 mg/m3		Not Available	
N,N-bis(2-hydroxyethyl)- 3-[C16-18)alkoxy]- 1-propanamine	Not Available		Not Available	
tolyltriazole	Not Available		Not Available	
distillates, petroleum, light, hydrotreated	2,500 mg/m3		Not Available	
paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346)	2,500 mg/m3		Not Available	
paraffinic distillate, heavy, hydrotreated (severe) (DMSO <3% w/w by IP 346)	2,500 mg/m3		Not Available	
lubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346)	2,500 mg/m3		Not Available	
10164 - 6cSt Group III Base Oil	2,500 mg/m3		Not Available	
naphthenic distillate, light, hydrotreated (severe)	2,500 mg/m3		Not Available	
C.I. Solvent Red 164	Not Available		Not Available	

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
Reaction product of alkylthioalcohol and substituted phosphorus compound	E	≤ 0.1 ppm	
C16-18-(even numbered, saturated and unsaturated)- alkylamines	E	≤ 0.1 ppm	
N,N-bis(2-hydroxyethyl)- 3-[C16-18)alkoxy]- 1-propanamine	C	> 1 to ≤ 10 parts per million (ppm)	
tolyltriazole	E	≤ 0.01 mg/m³	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the		

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

Ingredient	Occupational Exposure Band Rating	Occupational Ex	posure Band Limit	
distillates, petroleum, light, hydrotreated	E	≤ 0.1 ppm		
C.I. Solvent Red 164	E	≤ 0.01 mg/m³		
Notes:	Occupational exposure banding is a process of assigning of adverse health outcomes associated with exposure. The of range of exposure concentrations that are expected to pro-	utput of this process is an occupation		
3.2. Exposure controls				
8.2.1. Appropriate engineering controls	Engineering controls are used to remove a hazard or place be highly effective in protecting workers and will typically b The basic types of engineering controls are: Process controls which involve changing the way a job act Enclosure and/or isolation of emission source which keeps 'adds' and 'removes' air in the work environment. Ventilatio ventilation system must match the particular process and of Employers may need to use multiple types of controls to pro- General exhaust is adequate under normal operating cond essential to obtain adequate protection. Provide adequate workplace possess varying 'escape' velocities which, in tur remove the contaminant. Type of Contaminant: solvent, vapours, degreasing etc., evaporating from tank aerosols, fumes from pouring operations, intermittent con drift, plating acid fumes, pickling (released at low velocity direct spray, spray painting in shallow booths, drum filling generation into zone of rapid air motion) grinding, abrasive blasting, tumbling, high speed wheel gr very high rapid air motion). Within each range the appropriate value depends on: Lower end of the range 1: Room air currents minimal or favourable to capture 2: Contaminants of low toxicity or of nuisance value only 3: Intermittent, low production. 4: Large hood or large air mass in motion Simple theory shows that air velocity falls rapidly with distar with the square of distance from the extraction point (in sin accordingly, after reference to distance from the contamina 1-2 m/s (200-400 f/min.) for extraction of solvents generate considerations, producing performance deficits within the e factors of 10 or more when extraction systems are installed	e independent of worker interactions ivity or process is done to reduce the a selected hazard 'physically' away on can remove or dilute an air contar themical or contaminant in use. revent employee overexposure. itions. If risk of overexposure exists, ventilation in warehouse or closed s in, determine the 'capture velocities' (in still air) tainer filling, low speed conveyer tra- into zone of active generation) , conveyer loading, crusher dusts, g enerated dusts (released at high init Upper end of the range 1: Disturbing room air currents 2: Contaminants of high toxicity 3: High production, heavy use 4: Small hood - local control only nnce away from the opening of a sim ple cases). Therefore the air speed di na tank 2 meters distant from the extraction apparatus, make it essent	s to provide this high level of e risk. from the worker and ventil minant if designed properly. wear SAA approved respil storage areas. Air contamin of fresh circulating air requi- ansfers, welding, spray as discharge (active ial velocity into zone of ial velocity into zone of e extraction pipe. Velocit I at the extraction point sho extraction fan, for example, e extraction point. Other mo	y generally decreases uld be adjusted, should be a minimum o echanical
8.2.2. Individual protection measures, such as personal protective equipment				
Eye and face protection	<ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles. [AS/NZS 1337.1, EN166 or national</li> <li>Contact lenses may pose a special hazard; soft contact the wearing of lenses or restrictions on use, should be and adsorption for the class of chemicals in use and a their removal and suitable equipment should be readily remove contact lens as soon as practicable. Lens shou a clean environment only after workers have washed here the source of the second seco</li></ul>	ct lenses may absorb and concentra created for each workplace or task. n account of injury experience. Med y available. In the event of chemical uld be removed at the first signs of e	This should include a revie ical and first-aid personnel exposure, begin eye irrigat eye redness or irritation - le	ew of lens absorption should be trained in tion immediately and ns should be removed ir
Skin protection	See Hand protection below			
Hands/feet protection	<ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber The selection of suitable gloves does not only depend on t manufacturer. Where the chemical is a preparation of seve and has therefore to be checked prior to the application. The exact break through time for substances has to be obt making a final choice.</li> <li>Personal hygiene is a key element of effective hand care. I washed and dried thoroughly. Application of a non-perfume Suitability and durability of glove type is dependent on usa frequency and duration of contact,</li> <li>chemical resistance of glove material,</li> <li>glove thickness and</li> <li>dexterity</li> </ul>	he material, but also on further mark ral substances, the resistance of the ained from the manufacturer of the Gloves must only be worn on clean ad moisturiser is recommended.	e glove material can not be protective gloves and has t hands. After using gloves, l	calculated in advance o be observed when

	<ul> <li>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</li> <li>When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>Contaminated gloves should be replaced.</li> <li>As defined in ASTM F-739-96 in any application, gloves are rated as:</li> <li>Excellent when breakthrough time &gt; 480 min</li> <li>Good when breakthrough time &lt; 20 min</li> <li>Fair when breakthrough time &lt; 20 min</li> <li>Poor when glove material degrades</li> <li>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</li> <li>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</li> <li>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</li> <li>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</li> <li>Thinner gloves (up to 0.1 mm or less) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion</li></ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>P.V.C apron.</li> <li>Barrier cream.</li> <li>Skin cleansing cream.</li> <li>Eye wash unit.</li> </ul>

#### **Respiratory protection**

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class1 P2	-
up to 50	1000	-	A-AUS / Class 1 P2
up to 50	5000	Airline *	-
up to 100	5000	-	A-2 P2
up to 100	10000	-	A-3 P2
100+			Airline**

\* - Continuous Flow \*\* - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

+ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.

The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

#### 8.2.3. Environmental exposure controls

See section 12

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

#### 9.1. Information on basic physical and chemical properties

Appearance	Red Clear and Bright Fluid		
Physical state	Liquid	Relative density (Water = 1)	0.851
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	-48	Viscosity (cSt)	36.6 @ 40°C
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available

Flash point (°C)	212	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

## 9.2. Other information

Not Available

## **SECTION 10 Stability and reactivity**

10.1.Reactivity	See section 7.2
10.2. Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

## **SECTION 11 Toxicological information**

## 11.1. Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Inhalation of oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs.						
Ingestion	The material has <b>NOT</b> been classified by EC Directives or other classification corroborating animal or human evidence.	ation systems as 'harmful by ingestion'. This is because of the lack of					
Skin Contact	Skin contact is not thought to have harmful health effects (as classified u following entry through wounds, lesions or abrasions. There is some evidence to suggest that this material can cause inflamma						
Eye	Although the liquid is not thought to be an irritant (as classified by EC Dir characterised by tearing or conjunctival redness (as with windburn).	rectives), direct contact with the eye may produce transient discomfort					
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.						
HyperDrive KX ATF Dexron II	τοχιζιτγ	IRRITATION					
HyperDrive KX ATP Dexroll II	Not Available	Not Available					
distillates, solvent dewaxed	ΤΟΧΙΟΙΤΥ	IRRITATION					
light paraffinic hydrotreated	Not Available Not Available						
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-	ΤΟΧΙΟΙΤΥ	IRRITATION					
isoalkyloxy) derivs., C10-rich	Not Available	Not Available					

#### Reaction product of τοχιςιτγ IRRITATION alkylthioalcohol and substituted phosphorus Not Available Not Available compound C16-18-(even numbered, ΤΟΧΙΟΙΤΥ IRRITATION saturated and unsaturated)-Not Available Not Available alkylamines ΤΟΧΙΟΙΤΥ IRRITATION lubricating oils, petroleum Oral (Rat) LD50: >5000 mg/kg<sup>[2]</sup> Eye: no adverse effect observed (not irritating)<sup>[1]</sup> C20-50, hydrotreated neutral Skin: no adverse effect observed (not irritating)<sup>[1]</sup> N,N-bis(2-hydroxyethyl)-TOXICITY IRRITATION 3-[C16-18)alkoxy]-Not Available Not Available 1-propanamine TOXICITY IRRITATION Dermal (rabbit) LD50: >2000 mg/kg \*[2] Eye: adverse effect observed (irritating)<sup>[1]</sup> tolyltriazole Oral (Rat) LD50: 1470 mg/kg \*\*[2] Skin: no adverse effect observed (not irritating)<sup>[1]</sup> Oral (Rat) LD50: 675 mg/kg[2] TOXICITY IRRITATION Eye: no adverse effect observed (not irritating)<sup>[1]</sup> Dermal (rabbit) LD50: >2000 mg/kg<sup>[2]</sup> distillates, petroleum, light, hydrotreated Inhalation(Rat) LC50: >4.3 mg/l4h<sup>[1]</sup> Skin: adverse effect observed (irritating)<sup>[1]</sup> Oral (Rat) LD50: >5000 mg/kg<sup>[2]</sup> TOXICITY IRRITATION paraffinic distillate, heavy, Dermal (rabbit) LD50: >2000 mg/kg<sup>[2]</sup> Eye: no adverse effect observed (not irritating)<sup>[1]</sup> solvent-dewaxed (severe) (DMSO <3% w/w by IP 346) Inhalation(Rat) LC50: 2.18 mg/l4h<sup>[2]</sup> Skin: no adverse effect observed (not irritating)<sup>[1]</sup> Oral (Rat) LD50: >5000 mg/kg<sup>[2]</sup> TOXICITY IRRITATION paraffinic distillate, heavy, hydrotreated (severe) (DMSO Dermal (rabbit) LD50: >5000 mg/kg<sup>[2]</sup> Eye: no adverse effect observed (not irritating)<sup>[1]</sup> <3% w/w by IP 346) Oral (Rat) LD50: >15000 mg/kg<sup>[2]</sup> Skin: no adverse effect observed (not irritating)<sup>[1]</sup> IRRITATION TOXICITY lubricating oils, petroleum C20-50, hydrotreated neutral Oral (Rat) LD50: >5000 mg/kg<sup>[2]</sup> Eye: no adverse effect observed (not irritating)<sup>[1]</sup> contains (DMSO <3% w/w · IP346) Skin: no adverse effect observed (not irritating)<sup>[1]</sup> TOXICITY IRRITATION Dermal (rabbit) LD50: >2000 mg/kg<sup>[2]</sup> Eye: no adverse effect observed (not irritating)<sup>[1]</sup> 10164 - 6cSt Group III Base Oil Inhalation(Rat) LC50: 2.18 mg/l4h<sup>[2]</sup> Skin: no adverse effect observed (not irritating)<sup>[1]</sup> Oral (Rat) LD50: >5000 mg/kg<sup>[2]</sup> TOXICITY IRRITATION Dermal (rabbit) LD50: >2000 mg/kg<sup>[2]</sup> Eye: no adverse effect observed (not irritating)<sup>[1]</sup> naphthenic distillate, light, hydrotreated (severe) Skin: no adverse effect observed (not irritating)<sup>[1]</sup> Inhalation(Rat) LC50: 2.18 mg/l4h<sup>[2]</sup> Oral (Rat) LD50: >5000 mg/kg[2] TOXICITY IRRITATION C.I. Solvent Red 164 Dermal (rabbit) LD50: >10200 mg/kg<sup>[1]</sup> Eye: no adverse effect observed (not irritating)<sup>[1]</sup> Oral (Rat) LD50: >5000 mg/kg<sup>[1]</sup> Skin: no adverse effect observed (not irritating)<sup>[1]</sup> 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise Legend: specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

tolyltriazole	** Benzotriazoles Coalition Synthetic Organic Chemical Manufacturers Association December, 2011 For benzottiazoles There are several indications that the effects of phenolic benzotriazoles described in the literature might be caused by endocrine disruption, e.g. reduced concentrations of testosterone, higher concentrations of CYP 450, or higher activity of ethoxyresort/mc-deethylase (EROD-activity), As in these cases there are also indications for toxic effects on the liver reported, the effects might actually be only secondary effects. With the present knowledge it is not possible to attribute them unambiguously as endocrine adverse effects of an equivalent level of concern. Several benzyntazole UV stabilisers showed significant humans and hydrocarbons, heard[apprenc], Bajan at CNP, Alan Review in regulating immunity, stem cell maintenance, and cellular differentiation A study indicated that certain benzotriazole UV stabilisers have the potential to accumulate and exert poleryclic aromatic hydrocarbon the polycyclic aromatic hydrocarbons, heard[apprenc], alignat Cha PAR, Induces its worn metabolism and bioactivation to a toxic metabolites. Benzotriazole du Stabiliser is and mice yielded LDSO values that ranged from 500 to 900 mg/kg, Intrapentioneal LDSO values in atta and adde) Oral acute studies in rais and mice yielded LDSO values that ranged from 500 to 900 mg/kg, not effects on dadde) Oral acute studies in reproduced minimal effects on body weight while dosed-rogened meta-TbL owas 100 mg/kg, no deser-elated showed that call administration to mice produced minimal effects on body weight while dosed-for 26 weeks. The TDL owas 100 mg/kg, no deffects on deters and no clinical symptoms were noted in mice or rats orally administered (in food) benzotriazole arX weeks. Additionally, no dose-related effects on reportudive organs were noted in mice aras and a self of 12,00 ppm (16%). Significant increase in alveolar/bronchioar acarionas (16%) was observed female BEG2F1 led 11,700 ppm benzotriazole for 100 weeks. The
DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED HyperDrive KX ATF Dexron II & distillates, solvent dewaxed light paraffinic hydrotreated & lubricating oils, petroleum C20-50, hydrotreated neutral & paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346) & paraffinic distillate, heavy, hydrotreated (severe) (DMSO <3% w/w by IP 346) & lubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346) & NAPHTHENIC DISTILLATE, LIGHT, HYDROTREATED (SEVERE)	Kerosene may produce varying ranges of skin irritation, and a reversible eye irritation (if eyes are washed). Skin may be cracked or flaky and/or leathery, with crusts and/or hair loss. It may worsen skin cancers. There may also be loss of weight, discharge from the nose, excessive tiredness, and wheezing. The individual may be pale. There may be increase in the weight of body organs. There was no evidence of harm to pregnancy. For highly and severely refined distillate base oils: In animal studies, the acute, oral, semilethal dose is >5g/kg body weight and the semilethal dose by skin contact is >2g/kg body weight. The semilethal concentration for inhalation is 2.18 to >4 mg/L. The materials have varied from "non-irritating" to "moderately irritating" when tested for skin and eye irritation. Testing for sensitisation has been negative. The effects of repeated exposure vary by species; in animals, effects to the testes and lung have been observed, as well as the formation of granulomas. In animals, these substances have not been found to cause reproductive toxicity or significant increases in birth defects. They are also not considered to cause cancer, mutations or chromosome aberrations.
distillates, solvent dewaxed light paraffinic hydrotreated & DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED & paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346) & C.I. SOLVENT RED 164	No significant acute toxicological data identified in literature search.
distillates, solvent dewaxed light paraffinic hydrotreated & lubricating oils, petroleum C20-50, hydrotreated neutral & paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346) & paraffinic distillate, heavy, hydrotreated (severe) (DMSO <3% w/w by IP 346) &	The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives; The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since: The adverse effects of these materials are associated with undesirable components, and The levels of the undesirable components are inversely related to the degree of processing; Distillate base oils receiving the same degree or extent of processing will have similar toxicities; The potential toxicity of residual base oils is independent of the degree of processing the oil receives. The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing. Unrefined & mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components. In comparison to unrefined and mildly

lubricating oils, petroleum refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very C20-50, hydrotreated neutral low mammalian toxicity. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size. contains (DMSO <3% w/w -**IP346) & NAPHTHENIC** Toxicity testing has consistently shown that lubricating base oils have low acute toxicities. Numerous tests have shown that a lubricating base oil DISTILLATE, LIGHT, s mutagenic and carcinogenic potential correlates with its 3-7 ring polycyclic aromatic compound (PAC) content, and the level of DMSO HYDROTREATED (SEVERE) extractables (e.g. IP346 assay), both characteristics that are directly related to the degree/conditions of processing. Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to DISTILLATES, PETROLEUM, be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins. LIGHT, HYDROTREATED & The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic paraffinic distillate, heavy, hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the solvent-dewaxed (severe) gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell. The gut cell may play a major role in (DMSO <3% w/w by IP 346) determining the proportion of hydrocarbon that becomes available to be deposited unchanged in peripheral tissues such as in the body fat stores or the liver. paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346) & paraffinic distillate, heavy, The substance is classified by IARC as Group 3: hydrotreated (severe) (DMSO NOT classifiable as to its carcinogenicity to humans. <3% w/w by IP 346) & Evidence of carcinogenicity may be inadequate or limited in animal testing NAPHTHENIC DISTILLATE, LIGHT, HYDROTREATED (SEVERE) Acute Toxicity × Carcinogenicity × × × Skin Irritation/Corrosion Reproductivity X × STOT - Single Exposure Serious Eye Damage/Irritation Respiratory or Skin X X STOT - Repeated Exposure sensitisation × × Mutagenicity Aspiration Hazard Y – Data either not available or does not fill the criteria for classification Legend: Data available to make classification

#### 11.2 Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Many chemicals may mimic or interfere with the body s hormones, known as the endocrine system. Endocrine disruptors are chemicals that can interfere with endocrine (or hormonal) systems.

Endocrine disruptors interfere with the synthesis, secretion, transport, binding, action, or elimination of natural hormones in the body. Any system in the body controlled by hormones can be derailed by hormone disruptors. Specifically, endocrine disruptors may be associated with the development of learning disabilities, deformations of the body various cancers and sexual development problems.

Endocrine disrupting chemicals cause adverse effects in animals. But limited scientific information exists on potential health problems in humans. Because people are typically exposed to multiple endocrine disruptors at the same time, assessing public health effects is difficult.

#### 11.2.2. Other information

See Section 11.1

#### **SECTION 12 Ecological information**

#### 12.1. Toxicity

HyperDrive KX ATF Dexron II	Endpoint	Test Duration (hr)	Specie	s	Value		Sour	се
	Not Available	Not Available	Not Ava	ailable	Not A	vailable	Not A	vailable
distillates, solvent dewaxed	Endpoint	Test Duration (hr)	Specie	s	Value		Sour	ce
light paraffinic hydrotreated	Not Available	Not Available	Not Ava	ailable	Not A	vailable	Not A	vailable
Thiophene, tetrahydro-,	Endpoint	Test Duration (hr)	Specie	s	Value		Sour	се
1,1-dioxide, 3-(C9-11- soalkyloxy) derivs., C10-rich	Not Available	Not Available	Not Ava	ailable	Not A	vailable	Not A	vailable
Reaction product of								
alkylthioalcohol and	Endpoint	Test Duration (hr)	Specie	s	Value		Sour	ce
substituted phosphorus compound	Not Available	Not Available	Not Ava	ailable	Not A	vailable	Not A	vailable
C16-18-(even numbered,	Fuchasint	Test Duration (b)	Creasia	_	Value		<b>C</b>	
saturated and unsaturated)-	Endpoint	Test Duration (hr)	Specie		Value		Sour	
alkylamines	Not Available	Not Available	Not Ava	ailable	Not A	vailable	Not A	vailable
	E. I	Test Densilien (L.)		<b>0</b>		Value		0
lubricating oils, petroleum	Endpoint	Test Duration (hr)		Species				Source
C20-50, hydrotreated neutral	EC50	48h		Crustacea		>1000mg/l		1
	NOEC(ECx)	504h		Crustacea >1mg/l			1	

#### Continued...

N,N-bis(2-hydroxyethyl)- 3-[C16-18)alkoxy]-	Endpoint		Test Duration (hr)		Species	3	Value		So	ource	
3-[C16-18)aikoxy]- 1-propanamine	Not Available Not Available			Not Available Not Avai		Not Availa	able	No	t Available		
	Endpoint	Tost [	Ouration (hr)	Specie	Ne .			Value		Source	
	EC50	72h				uatic plants		29mg/		2	
tolyltriazole	EC50	48h		Crusta		ualic plants		-			
toryitriazoie	LC50	96h		Fish	Lea						
								21.4m	5		
	EC50(ECx)	48h		Crusta	cea			35.4m	y/i	Not Available	
	Endpoint		Test Duration	(hr)		Species	;	Value		Source	
distillates, petroleum, light,	LC50		96h			Fish		2.2mg/l		4	
hydrotreated	NOEC(ECx)		3072h			Fish		1mg/l		1	
		_									
	Endpoint		t Duration (hr)		ecies				alue	Sour	ce
paraffinic distillate, heavy,	EC50	48h			stacea				1000mg/l	1	
solvent-dewaxed (severe) (DMSO <3% w/w by IP 346)	EC50	96h				aquatic plants			1000mg/l	1	
	ErC50	72h				aquatic plants			1000mg/l	1	
	NOEC(ECx)	504	h	Cru	stacea			>	1mg/l	1	
	Endpoint	Tes	Test Duration (hr) Species				V	Value		rce	
nenettinia distillata kasun	EC50	48h		Cru	Crustacea		>1000mg/l		1		
paraffinic distillate, heavy, ydrotreated (severe) (DMSO	EC50	96h		Alg	ae or othei	aquatic plants		>	1000mg/l	1	
<3% w/w by IP 346)	ErC50	72h		Alg	Algae or other aquatic plants		>1000mg/l		1		
	NOEC(ECx)	504	504h Crus		stacea			>	1mg/l	1	
lubricating oils, petroleum 20-50, hydrotreated neutral	Endpoint		Test Duration (h	r)		Species		alue		Source	
contains (DMSO <3% w/w -	EC50		48h			Crustacea		000mg/l		1	
IP346)	NOEC(ECx)		504h			Crustacea	>1	mg/l		1	
	Endpoint		Test Duration (h	r)		Species	Va	alue		Source	
164 - 6cSt Group III Base Oil	EC50		48h			Crustacea	>1000mg/l			1	
	NOEC(ECx)		504h			Crustacea		mg/l		1	
	Endpoint		t Duration (hr)		Species				alue	Sour	се
naphthenic distillate, light,	EC50	48h			Crustacea			>	1000mg/l	1	
hydrotreated (severe)	EC50	96h		Alg	Algae or other aquatic plants			>1000mg/l		1	
_ , , ,	ErC50	72h		Alg	Algae or other aquatic plants			>1000mg/l		1	
	NOEC(ECx)	504	h	Cru	stacea			>	1mg/l	1	
	Endpoint		Test Duration (hr)		Species	5	Value		So	ource	
C.I. Solvent Red 164	Not Available		Not Available		Not Ava		Not Availa	able		t Available	
Legend:	Extracted from 1. Ecotox database -		kicity Data 2. Europe								

## 12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air		
	No Data available for all ingredients	No Data available for all ingredients		

## 12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
distillates, petroleum, light, hydrotreated	LOW (BCF = 159)

## 12.4. Mobility in soil

Ingredient	Mobility				
	No Data available for all ingredients				

## 12.5. Results of PBT and vPvB assessment

	Р	В	т			
Relevant available data	Not Available	Not Available	Not Available			
PBT	×	×	×			
vPvB	×	×	×			
PBT Criteria fulfilled? No						
vPvB	No					

## 12.6. Endocrine disrupting properties

The evidence linking adverse effects to endocrine disruptors is more compelling in the environment than it is in humans. Endocrine distruptors profoundly alter reproductive physiology of ecosystems and ultimately impact entire populations. Some endocrine-disrupting chemicals are slow to break-down in the environment. That characteristic makes them potentially hazardous over long periods of time. Some well established adverse effects of endocrine disruptors in various wildlife species include; eggshell-thinning, displayed of characteristics of the opposite sex and impaired reproductive development. Other adverse changes in wildlife species that have been suggested, but not proven include; reproductive abnormalities, immune dysfunction and skeletal deformaties.

#### 12.7. Other adverse effects

One or more ingredients within this SDS has the potential of causing ozone depletion and/or photochemical ozone creation.

## **SECTION 13 Disposal considerations**

## 13.1. Waste treatment methods

Product / Packaging disposal	Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: • Reduction • Reuse • Recycling • Disposal (if all else fails) This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. • DO NOT allow wash water from cleaning or process equipment to enter drains. • It may be necessary to collect all wash water for treatment before disposal. • In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. • Where in doubt contact the responsible authority. • Recycle wherever possible or consult manufacturer for recycling options. • Consult State Land Waste Authority for disposal. • Bury or incinerate residue at an approved site. • Recycle containers if possible, or dispose of in an authorised landfill.
Waste treatment options	Not Available
Sewage disposal options	Not Available

## **SECTION 14 Transport information**

# Labels Required Marine Pollutant NO HAZCHEM Not Applicable

## Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number or ID number	Not Applicable	Not Applicable			
14.2. UN proper shipping name	Not Applicable	Not Applicable			
14.3. Transport hazard class(es)		Applicable			
14.4. Packing group	Not Applicable				
14.5. Environmental hazard	Not Applicable				
14.6. Special precautions for user	Hazard identification (Kemle Classification code Hazard Label Special provisions Limited quantity	er) Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable			
	Tunnel Restriction Code	Not Applicable			

14.1. UN number	Not Applicable					
14.2. UN proper shipping name	Not Applicable	Not Applicable				
14.2 Transport barard	ICAO/IATA Class	Not Applicable				
14.3. Transport hazard class(es)	ICAO / IATA Subsidiary Hazard	ICAO / IATA Subsidiary Hazard Not Applicable				
	ERG Code	Not Applicable				
14.4. Packing group	Not Applicable	Not Applicable				
14.5. Environmental hazard	Not Applicable					
	Special provisions		Not Applicable			
	Cargo Only Packing Instructions		Not Applicable			
	Cargo Only Maximum Qty / Pack		Not Applicable			
14.6. Special precautions for user	Passenger and Cargo Packing Instructions		Not Applicable			
	Passenger and Cargo Maximum Qty / Pack		Not Applicable			
	Passenger and Cargo Limited Qu	antity Packing Instructions	Not Applicable			
	Passenger and Cargo Limited Ma	aximum Qty / Pack	Not Applicable			

## Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable					
14.2. UN proper shipping name	Not Applicable	Not Applicable				
14.3. Transport hazard class(es)	IMDG Class IMDG Subsidiary Hazard	IMDG ClassNot ApplicableIMDG Subsidiary HazardNot Applicable				
14.4. Packing group	Not Applicable					
14.5 Environmental hazard	Not Applicable					
14.6. Special precautions for user	Special provisions No	ot Applicable ot Applicable				

## Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable		
14.2. UN proper shipping name	Not Applicable		
14.3. Transport hazard class(es)	Not Applicable Not Applicable		
14.4. Packing group	Not Applicable		
14.5. Environmental hazard	Not Applicable		
14.6. Special precautions for user	Classification code       Not Applicable         Special provisions       Not Applicable         Limited quantity       Not Applicable         Equipment required       Not Applicable         Fire cones number       Not Applicable		

## 14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

## 14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
distillates, solvent dewaxed light paraffinic hydrotreated	Not Available
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11- isoalkyloxy) derivs., C10-rich	Not Available
Reaction product of alkylthioalcohol and substituted phosphorus compound	Not Available
C16-18-(even numbered, saturated and unsaturated)- alkylamines	Not Available
lubricating oils, petroleum C20-50, hydrotreated neutral	Not Available

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## HyperDrive KX ATF Dexron II

Product name	Group
N,N-bis(2-hydroxyethyl)- 3-[C16-18)alkoxy]- 1-propanamine	Not Available
tolyltriazole	Not Available
distillates, petroleum, light, hydrotreated	Not Available
paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346)	Not Available
paraffinic distillate, heavy, hydrotreated (severe) (DMSO <3% w/w by IP 346)	Not Available
lubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346)	Not Available
10164 - 6cSt Group III Base Oil	Not Available
naphthenic distillate, light, hydrotreated (severe)	Not Available
C.I. Solvent Red 164	Not Available

## 14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
distillates, solvent dewaxed light paraffinic hydrotreated	Not Available
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11- isoalkyloxy) derivs., C10-rich	Not Available
Reaction product of alkylthioalcohol and substituted phosphorus compound	Not Available
C16-18-(even numbered, saturated and unsaturated)- alkylamines	Not Available
lubricating oils, petroleum C20-50, hydrotreated neutral	Not Available
N,N-bis(2-hydroxyethyl)- 3-[C16-18)alkoxy]- 1-propanamine	Not Available
tolyltriazole	Not Available
distillates, petroleum, light, hydrotreated	Not Available
paraffinic distillate, heavy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346)	Not Available
paraffinic distillate, heavy, hydrotreated (severe) (DMSO <3% w/w by IP 346)	Not Available
lubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346)	Not Available
10164 - 6cSt Group III Base Oil	Not Available
naphthenic distillate, light, hydrotreated (severe)	Not Available
C.I. Solvent Red 164	Not Available

## **SECTION 15 Regulatory information**

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

distillates, solvent dewaxed light paraffinic hydrotreated is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List Great Britain GB mandatory classification and labelling list (GB MCL)

## Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich is found on the following regulatory lists Not Applicable

Reaction product of alkylthioalcohol and substituted phosphorus compound is found on the following regulatory lists Not Applicable

C16-18-(even numbered, saturated and unsaturated)-alkylamines is found on the following regulatory lists Not Applicable

Chemical Footprint Project - Chemi	cals of High Concern List	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC		
Great Britain GB mandatory classif	cation and labelling list (GB MCL)	Monographs - Not Classified as Carcinogenic		
N,N-bis(2-hydroxyethyl)-3-[C16-1	8)alkoxy]-1-propanamine is found on the following r	egulatory lists		
Not Applicable				
olyltriazole is found on the follo	wing regulatory lists			
Great Britain GB mandatory classif	ication and labelling (GB MCL) technical reports			
listillates, petroleum, light, hydr	otreated is found on the following regulatory lists			
Chemical Footprint Project - Chemi	•	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC		
Great Britain GB mandatory classif	ication and labelling list (GB MCL) on Cancer (IARC) - Agents Classified by the IARC	Monographs - Group 1: Carcinogenic to humans International Agency for Research on Cancer (IARC) - Agents Classified by the IARC		
Monographs	Sin Cancer (IAICO) - Agents Classified by the IAICO	Monographs - Not Classified as Carcinogenic		
paraffinic distillate, heavy, solve	nt-dewaxed (severe) (DMSO <3% w/w=" by=" ip=" 34	6)=">is found on the following regulatory lists		
Chemical Footprint Project - Chemi	•	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic		
Great Britain GB mandatory classif	<b>2</b> ( )			
	treated (severe) (DMSO <3% w/w=" by=" ip=" 346)="			
Chemical Footprint Project - Chemi Great Britain GB mandatory classif		International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic		
lubricating oils, petroleum C20-5	0, hydrotreated neutral contains (DMSO <3% w/w="	-=" ip346)=">is found on the following regulatory lists		
Chemical Footprint Project - Chemi		International Agency for Research on Cancer (IARC) - Agents Classified by the IARC		
Great Britain GB mandatory classif	cation and labelling list (GB MCL)	Monographs - Not Classified as Carcinogenic		
10164 - 6cSt Group III Base Oil is	found on the following regulatory lists			
Chemical Footprint Project - Chemi		International Agency for Research on Cancer (IARC) - Agents Classified by the IARC		
Great Britain GB mandatory classif	ication and labelling list (GB MCL) on Cancer (IARC) - Agents Classified by the IARC	Monographs - Group 1: Carcinogenic to humans International Agency for Research on Cancer (IARC) - Agents Classified by the IARC		
Monographs		Monographs - Not Classified as Carcinogenic		
naphthenic distillate, light, hydro	ptreated (severe) is found on the following regulatory	/ lists		
Chemical Footprint Project - Chemi	cals of High Concern List	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC		
Great Britain GB mandatory classif	cation and labelling list (GB MCL)	Monographs - Not Classified as Carcinogenic		
C.I. Solvent Red 164 is found on	the following regulatory lists			
International WHO List of Proposed Manufactured Nanomaterials (MNN	d Occupational Exposure Limit (OEL) Values for IS)			
dditional Regulatory Informa	tion			
Not Applicable				
2010/75/EU; Commission Regulation	on (EU) 2020/878; Regulation (EC) No 1272/2008 as up	s - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - adated through ATPs.		
nformation according to 2012/	, ,			
Seveso Category	Not Available			
5.2. Chemical safety assessm	ent			
No Chemical Safety Assessment h	as been carried out for this substance/mixture by the su	pplier.		
ational Inventory Status				
ational Inventory Status	Status			
National Inventory	Status			
Australia AUC / Australia	Yes			
		No (distillates, solvent dewaxed light paraffinic hydrotreated)		
Australia - AIIC / Australia Non-Industrial Use Canada - DSL	No (distillates, solvent dewaxed light paraffinic hydrot	reated)		
Non-Industrial Use Canada - DSL	No (distillates, solvent dewaxed light paraffinic hydrot petroleum, light, hydrotreated; paraffinic distillate, hea	reated; lubricating oils, petroleum C20-50, hydrotreated neutral; tolyltriazole; distillates, avy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346); paraffinic distillate, heavy, ubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346);		
Non-Industrial Use Canada - DSL	No (distillates, solvent dewaxed light paraffinic hydrot petroleum, light, hydrotreated; paraffinic distillate, hea hydrotreated (severe) (DMSO <3% w/w by IP 346); lu	reated; lubricating oils, petroleum C20-50, hydrotreated neutral; tolyltriazole; distillates, avy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346); paraffinic distillate, heavy, ubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346)		
Non-Industrial Use Canada - DSL Canada - NDSL China - IECSC	No (distillates, solvent dewaxed light paraffinic hydrot petroleum, light, hydrotreated; paraffinic distillate, hea hydrotreated (severe) (DMSO <3% w/w by IP 346); lu 10164 - 6cSt Group III Base Oil; naphthenic distillate,	reated; lubricating oils, petroleum C20-50, hydrotreated neutral; tolyltriazole; distillates, avy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346); paraffinic distillate, heavy, ubricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346)		
Non-Industrial Use Canada - DSL Canada - NDSL	No (distillates, solvent dewaxed light paraffinic hydrot petroleum, light, hydrotreated; paraffinic distillate, hea hydrotreated (severe) (DMSO <3% w/w by IP 346); Iu 10164 - 6cSt Group III Base Oil; naphthenic distillate, Yes	reated; lubricating oils, petroleum C20-50, hydrotreated neutral; tolyltriazole; distillates, avy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346); paraffinic distillate, heavy, ibricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346) light, hydrotreated (severe); C.I. Solvent Red 164)		
Non-Industrial Use Canada - DSL Canada - NDSL China - IECSC Europe - EINEC / ELINCS / NLP	No (distillates, solvent dewaxed light paraffinic hydrot petroleum, light, hydrotreated; paraffinic distillate, hea hydrotreated (severe) (DMSO <3% w/w by IP 346); lu 10164 - 6cSt Group III Base Oil; naphthenic distillate, Yes Yes	reated; lubricating oils, petroleum C20-50, hydrotreated neutral; tolyltriazole; distillates, avy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346); paraffinic distillate, heavy, ibricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP346) light, hydrotreated (severe); C.I. Solvent Red 164)		
Non-Industrial Use Canada - DSL Canada - NDSL China - IECSC Europe - EINEC / ELINCS / NLP Japan - ENCS	No (distillates, solvent dewaxed light paraffinic hydrot petroleum, light, hydrotreated; paraffinic distillate, hee hydrotreated (severe) (DMSO <3% w/w by IP 346); lu 10164 - 6cSt Group III Base Oil; naphthenic distillate, Yes Yes No (distillates, solvent dewaxed light paraffinic hydrot	reated; lubricating oils, petroleum C20-50, hydrotreated neutral; tolyltriazole; distillates, avy, solvent-dewaxed (severe) (DMSO <3% w/w by IP 346); paraffinic distillate, heavy, ibricating oils, petroleum C20-50, hydrotreated neutral contains (DMSO <3% w/w - IP34 light, hydrotreated (severe); C.I. Solvent Red 164) reated; tolyltriazole; C.I. Solvent Red 164)		

No (distillates, solvent dewaxed light paraffinic hydrotreated)

No (distillates, solvent dewaxed light paraffinic hydrotreated)

Mexico - INSQ Vietnam - NCI

Yes

Philippines - PICCS

USA - TSCA

Taiwan - TCSI

National Inventory	ry Status No (distillates, solvent dewaxed light paraffinic hydrotreated; lubricating oils, petroleum C20-50, hydrotreated neutral;	
Russia - FBEPH		
Legend:         Yes = All CAS declared ingredients are on the inventory           No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.		

#### **SECTION 16 Other information**

Revision Date	27/11/2023
Initial Date	27/11/2023

#### Full text Risk and Hazard codes

H302	Harmful if swallowed.		
H304	May be fatal if swallowed and enters airways.		
H312	Harmful in contact with skin.		
H314	Causes severe skin burns and eye damage.		
H318	Causes serious eye damage.		
H335	May cause respiratory irritation.		
H336	May cause drowsiness or dizziness.		
H361d	Suspected of damaging the unborn child.		
H361f	Suspected of damaging fertility.		
H373	May cause damage to organs through prolonged or repeated exposure.		
H400	Very toxic to aquatic life.		
H410	Very toxic to aquatic life with long lasting effects.		
H411	Toxic to aquatic life with long lasting effects.		

#### **SDS Version Summary**

Ve	ersion	Date of Update	Sections Updated
0.2	2	27/11/2023	Hazards identification - Classification, Composition / information on ingredients - Ingredients

## Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered. For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

#### **Definitions and abbreviations**

- PC TWA: Permissible Concentration-Time Weighted Average
- PC STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- ► TEEL: Temporary Emergency Exposure Limit。
- IDLH: Immediately Dangerous to Life or Health Concentrations
- ES: Exposure Standard
- OSF: Odour Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index
- DNEL: Derived No-Effect Level
   PNEC: Predicted no-effect concernance
- PNEC: Predicted no-effect concentration
- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
   INSQ: Inventario Nacional de Sustancias Químicas

- NCI: National Chemical Inventory
   FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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