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SECTION 1. IDENTIFICATION

Product name	:	THERMOYLE 460P
Article-No.		340421
Other means of identification	:	No data available
Manufacturer or supplier's o	deta	ills
Manufacturer or supplier's de Company name of supplier		Klüber Lubrication NA LP 9010 County Road 2120 Tyler, Texas 75707 USA Phone: +1 903 534-8021 Fax: +1 903 581-4376 32 Industrial Drive Londonderry, NH 03053 USA Phone: +1 603 647-4104 Fax: +1 603 647-4106
E-mail address of person responsible for the SDS	:	mcm@us.kluber.com Material Compliance Management
Emergency telephone	:	+1-517-545-7070 NCEC

Recommended use of the chemical and restrictions on use

Recommended use	:	Lubricating oil
Restrictions on use	:	Restricted to professional users.

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SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations				
Reproductive toxicity	: Category 2			

GHS label elements

Hazard pictograms



number







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Haza	rd statements	: Suspected of damaging fertility.	
Preca	autionary statements	Prevention:	
		Obtain special instructions before u Do not handle until all safety preca understood. Wear protective gloves/ protective protection.	utions have been read and
		Response:	
		IF exposed or concerned: Get med	lical advice/ attention.
		Storage:	
		Store locked up.	
		Disposal:	
		Dispose of contents/ container to a plant.	n approved waste disposal

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Mineral oil.

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Residual oils (petroleum), solvent- refined	Residual oils (petroleum,) solvent-refined; Baseoil — unspecified	64742-01-4	Trade secret** (>= 80 - <= 100 *)
Benzenamine, N- phenyl-, reaction products with 2,4,4- trimethylpentene	Benzenamine, N-phenyl-, reaction products with 2,4,4- trimethylpenten e	68411-46-1	Trade secret** (>= 1 - < 5 *)

* Actual concentration or concentration range is withheld as a trade secret

** See Section 15 for HMIRA information.





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SECTION 4. FIRST AID MEASURES

If inhaled	:	Obtain medical attention. Remove person to fresh air. If signs/symptoms continue, get medical attention. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.
In case of skin contact	:	Remove contaminated clothing. If irritation develops, get medical attention. In case of contact, immediately flush skin with plenty of water.
In case of eye contact	:	Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. If eye irritation persists, consult a specialist.
If swallowed	:	Move the victim to fresh air. Do NOT induce vomiting. Rinse mouth with water.
Most important symptoms and effects, both acute and delayed	:	No information available. None known.
Notes to physician	:	No information available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	:	High volume water jet
Hazardous combustion products	:	Carbon oxides Nitrogen oxides (NOx)
Further information	:	Standard procedure for chemical fires.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions,
- : Evacuate personnel to safe areas.



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	tective equipment and ergency procedures	Use personal protective equipmer Refer to protective measures liste	
Env	vironmental precautions	 Try to prevent the material from e courses. Prevent further leakage or spillage Local authorities should be advise cannot be contained. 	e if safe to do so.
	thods and materials for tainment and cleaning up	: Contain spillage, and then collect absorbent material, (e.g. sand, ea vermiculite) and place in containe local / national regulations (see se	rth, diatomaceous earth, r for disposal according to

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Wash hands and face before breaks and immediately after handling the product. Do not get in eyes or mouth or on skin. Do not get on skin or clothing.
Conditions for safe storage	:	Store in original container. Keep container closed when not in use. Keep in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with the particular national regulations. Keep in properly labelled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Residual oils (petroleum), solvent-refined	64742-01-4	TWA (Mist)	5 mg/m3	CA AB OEL (2009-04-30)
		STEL (Mist)	10 mg/m3	CA AB OEL (2009-04-30)
		TWAEV (Mist)	5 mg/m3	CA QC OEL (2012-11-28)
		STEV (Mist)	10 mg/m3	CA QC OEL (2012-11-28)





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				TWA (Mist)	1 mg/m3	CA BC OEL (2012-04-20
				TWA (Mist)	1 mg/m3	CA BC OEL (2021-01-04
				TWA (Mist)	0.2 mg/m3	CA BC OEL (2021-01-04
				TWA (Inhalable particulate matter)	5 mg/m3	ACGIH (2013-03-01
Engi	neering measures	:	Handle only i appropriate e		ped with local exha	aust (or other
Perse	onal protective equi	pment	:			
Resp	iratory protection	:	: In the case of vapour formation use a respirator with an approved filter.			r with an
Hand	l protection					
R	emarks	: Protective gloves The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Th break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.			er quality ne other. The ngs on the	
Eye protection : Safety glasses with side-shields						
Skin	and body protection	:	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.			
Prote	ective measures	:			nent must be selec	

to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

: liquid Appearance Colour : colourless

Odour : mild







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	Odour	Threshold	:	No data available	
	рН		:	Not applicable	
	Melting	g point/range	:	No data available	
	Boiling	point/boiling range	:	No data available	
	Flash ı	point	:	>= 185 °C Method: open cup	
	Evapo	ration rate	:	No data available	
	Flamm	ability (solid, gas)	:	Not applicable	
	Self-ig	nition	:	No data available	
		explosion limit / Upper ability limit	r :	No data available	
		explosion limit / Lower ability limit	:	No data available	
	Vapou	r pressure	:	< 0.001 hPa (20 °C)	
	Relativ	ve vapour density	:	No data available	
	Relativ	ve density	:	0.890 (20 °C) Reference substance: Water The value is calculated	
	Bulk d	ensity	:	No data available	
		lity(ies) ter solubility	:	insoluble	
	Sol	ubility in other solvents	S :	No data available	
		on coefficient: n- I/water	:	No data available	
	Auto-iç	gnition temperature	:	No data available	
	Decom	position temperature	:	No data available	





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Viscosity Viscosity, dynamic		: No data available	
Viscosity, kinematic		: 460 mm2/s (40 °C)	
Explosive properties		: Not explosive	
Oxidi	zing properties	: No data available	
Sublimation point		: No data available	

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No hazards to be specially mentioned.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	No conditions to be specially mentioned.
Incompatible materials	:	No materials to be especially mentioned.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Remarks: This information is not available.
Acute inhalation toxicity	:	Remarks: This information is not available.
Acute dermal toxicity	:	Remarks: This information is not available.

Components:

Residual oils (petroleum), solvent-refined:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg Method: OECD Test Guideline 402 GLP: yes





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Benz	enamine, N-phenyl-	, react	ion products with 2,4,4-trimethylp	entene:				
Acute	e oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401	I				
Acute	Acute dermal toxicity		LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity					
Skin	corrosion/irritation							
Prod	uct:							
Rema	arks	:	This information is not available.					
Com	ponents:							
Resid	Residual oils (petroleum), solvent-refined:							
Speci Asses Resu	ssment	:	Rabbit No skin irritation No skin irritation					

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species :	Rabbit
Assessment :	No skin irritation
Method :	OECD Test Guideline 404
Result :	No skin irritation

Serious eye damage/eye irritation

Product:

Remarks : This information is not available.

Components:

Residual oils (petroleum), solvent-refined:

Species	:	Rabbit
Result	:	No eye irritation
Assessment	:	No eye irritation

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species	:	Rabbit
Result	:	No eye irritation
Assessment	:	No eye irritation
Method	:	OECD Test Guideline 405





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	Respiratory or skin sensitisation								
	Product:								
	Rema	rks	:	This information is not available.					
	<u>Components:</u>								
	Resid	ual oils (petroleum), solv	ent-refined:					
	Specie	es	:	Guinea pig					
		sment	:	Did not cause sensitisation on lab					
	Result	t	:	Did not cause sensitisation on lab	ooratory animals.				
	Benze	enamine, N-phenyl-	, react	ion products with 2,4,4-trimethyl	pentene:				
	Specie		:	Guinea pig					
	Asses Metho	sment	:	Did not cause sensitisation on lab OECD Test Guideline 406	poratory animals.				
	Result		:	Did not cause sensitisation on lab	poratory animals.				
					,, ,				
Germ cell mutagenicity									
	<u>Produ</u>	<u>ict:</u>							
	Genot	oxicity in vitro	:	Remarks: No data available					
	Genot	oxicity in vivo	:	Remarks: No data available					
	Carci	nogenicity							
	<u>Produ</u>	<u>ict:</u>							
	Rema	rks	:	No data available					
	Repro	oductive toxicity							
	Produ	ict:							
		s on fertility	:	Remarks: No data available					
		s on foetal opment	:	Remarks: No data available					
	Comp	oonents:							
	Benze	enamine, N-phenyl-	, react	ion products with 2,4,4-trimethyl	pentene:				
		ductive toxicity -	:	•	-				
		sment		Some evidence of adverse effects fertility, based on animal experime					





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Repe	ated dose toxicity			
Produ	uct:			
Rema	arks	:	This information is not available.	
Aspir	ation toxicity			
Produ	uct:			
This i	nformation is not ava	ailable.		
Furth	er information			
Produ	uct:			
Rema	arks	:	Information given is based on data the toxicology of similar products.	

SECTION 12. ECOLOGICAL INFORMATION

Product:		
Toxicity to fish	:	Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available
Toxicity to algae/aquatic plants	:	Remarks: No data available
Toxicity to microorganisms	:	Remarks: No data available
Components:		

Residual oils (petroleum), solvent-refined:					
Toxicity to fish :		LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l Exposure time: 96 h Test Type: static test			
Toxicity to daphnia and other : aquatic invertebrates	-	EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202			





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Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Toxicity to fish :	LC50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 51 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic : plants	EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201

Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available
Physico-chemical removability	:	Remarks: No data available

Components:

Residual oils (petroleum), solvent-refined: Biodegradability : Result: Not rapidly biog

Biodegradability	:	Result: Not rapidly biodegradable
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Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Biodegradability	: aerobic
	Inoculum: activated sludge
	Result: Not rapidly biodegradable
	Biodegradation: 1 %
	Exposure time: 28 d
	Method: OECD Test Guideline 301B
	GLP: yes





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Bioac	cumulative potential				
Produ	ict:				
Bioaccumulation		:	Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).		
<u>Comp</u>	onents:				
Benze	enamine, N-phenyl-, r	eact	ion products with 2,4,4-trimethylp	entene:	
Partitio	on coefficient: n- bl/water	:	log Pow: > 5		
Mobil	ity in soil				
Produ	ict:				
Mobili	ty	:	Remarks: No data available		
	oution among nmental compartment	: s	Remarks: No data available		
Other	adverse effects				
Produ	ıct:				

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods		
Waste from residues	:	The product should not be allowed to enter drains, water courses or the soil.
Contaminated packaging	:	Packaging that is not properly emptied must be disposed of as the unused product. Dispose of waste product or used containers according to local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG





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Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

National Regulations

TDG

Not regulated as a dangerous good

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

NPRI Components	:	Canadian National Pollutant Release Inventory (NPRI): No
		component is listed on NPRI.

Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH CA AB OEL	:	USA. ACGIH Threshold Limit Values (TLV) Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with





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x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances: (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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