

Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 22.11.2019	Print Date:
1.7	06.07.2020	Date of first issue: 10.11.2014	06.07.2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Klüberplex BE 31-222
Article-No.	:	017132
Manufacturer or supplier's de	eta	ils
Company	:	Klüber Lubrication München Geisenhausenerstr. 7 81379 München Deutschland Tel: +49 (0) 89 7876 0 Fax: +49 (0) 89 7876 333 info@klueber.com
E-mail address of person responsible for the SDS	:	mcm@klueber.com Material Compliance Management
National contact	:	Kluber Lubrication (Thailand) Co., Ltd. 5 Dr. Gerhard Link Building, 12th Floor, Soi Krungthepkreetha 4 (B.Grimm), Krungthepkreetha Road, Huamark, Bangkapi, Bangkok 10240 Tel.: +66 2 792 2888 Fax: +66 2 792 2800 Email: sales@th.klueber.com
Emergency telephone number	:	+49 89 7876 700 (24 hrs)
Recommended use of the che Recommended use	em :	ical and restrictions on use Grease
Restrictions on use	:	Restricted to professional users.

2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.





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Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Mixture
Chemical nature	:	Mineral oil. special calcium soap

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy par-	64742-54-7	>= 50 -< 70
affinic		
Reaction mixture of hydrogenated tallow alkyl	1282612-32-1	>= 20 -< 30
amines with sebacic acid and calcium hydroxide		
2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole	59656-20-1	>= 1 -< 2.5
Benzenamine, N-phenyl-, reaction products with	68411-46-1	>= 1 -< 2.5
2,4,4-trimethylpentene		

4. FIRST AID MEASURES

If inhaled	:	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 respira- tion.
In case of skin contact	:	Remove contaminated clothing. If irritation develops, get med- ical attention. Wash off with soap and 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 without medical advice.
Most important symptoms and effects, both acute and delayed	:	No information available. None known.
Notes to physician	:	No information available.

5. FIREFIGHTING MEASURES





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	Suitabl	e extinguishing media	:	Use water spray, alcohol-resista bon dioxide.	ant foam, dry chemical or car-
	Unsuita media	able extinguishing	:	High volume water jet	
	Specific fighting	c hazards during fire-	:	Fire may cause evolution of: Carbon oxides Metal oxides Nitrogen oxides (NOx) Sulphur oxides	
	Specifi ods	c extinguishing meth-	:	Standard procedure for chemica	al fires.
	Specia for firef	l protective equipment ighters	:	In the event of fire, wear self-co Use personal protective equipm Exposure to decomposition proc health.	ent.
6. A	CCIDE	NTAL RELEASE MEA	SUF	ES	
	tive equ	al precautions, protec uipment and emer- procedures	- :	Evacuate personnel to safe area Use the indicated respiratory pro exposure limit is exceeded and/ (dust). Do not breathe vapours, aeroso Refer to protective measures lis	otection if the occupational or in case of product release ls.
	Enviror	nmental precautions	:	Try to prevent the material from courses. Local authorities should be advi cannot be contained.	-
		ls and materials for ment and cleaning up	:	Clean up promptly by sweeping Keep in suitable, closed contain	
7. H		NG AND STORAGE			
	Advice	on safe handling	:	For personal protection see sec Smoking, eating and drinking sh plication area. Wash hands and face before br handling the product.	nould be prohibited in the ap-
	Conditi	ons for safe storage	:	Store in original container. Keep container closed when no Keep in a dry, cool and well-ven Containers which are opened m	tilated place.
				3/19	a brand of







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kept upright to prevent leakage. Store in accordance with the particular national regulations. Keep in properly labelled containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis	
Distillates (petroleum), hy- drotreated heavy paraffinic	64742-54-7	TWA (Inhal- able particu- late matter)	5 mg/m3	ACGIH	
Engineering measures	: none				
Personal protective equipme	nt				
Respiratory protection		except in case o	f aerosol formation.		
Filter type	: Filter type P				
Hand protection Material Break through time Protective index Remarks			ntact use protective g		
	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.				
Eye protection	: Tightly fitting	safety goggles			
Protective measures	to the concer at the specific Choose body	tration and amou workplace. protection in rela nount of dangero	ent must be selected unt of the dangerous ation to its type, to the ous substances, and	substance e concen-	
Hygiene measures	: Wash face, h handling.	Wash face, hands and any exposed skin thoroughly after			

Components with workplace control parameters

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

: paste





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	Colour		:	beige	
	Odour		:	characteristic	
	Odour	Threshold	:	No data available	
	рН		:	No data available	
	Melting	g point/range	:	No data available	
	Boiling	point/boiling range	:	No data available	
	Flash p	point	:	Not applicable	
	Evapor	ration rate	:	No data available	
	Flamm	ability (solid, gas)	:	Combustible Solids	
	Self-ig	nition	:	No data available	
		explosion limit / Upper ability limit	r :	No data available	
		explosion limit / Lower ability limit	r :	No data available	
	Vapou	r pressure	:	< 0.01 hPa (20 °C)	
	Relativ	e vapour density	:	No data available	
	Density	y	:	0.96 g/cm3 (20 °C)	
	Bulk de	ensity	:	No data available	
	Solubil Wa	ity(ies) ter solubility	:	insoluble	
	Sol	ubility in other solvents	6 :	No data available	
	Partitio octano	on coefficient: n- I/water	:	No data available	
	Auto-ig	nition temperature	:	No data available	
	Decom	position temperature	:	No data available	
	Viscos Visc	ity cosity, dynamic	:	No data available	
	Viso	cosity, kinematic	:	No data available	
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Exp	losive properties	:	Not explosive	
Oxi	dizing properties	:	No data available	
Sub	limation point	:	No data available	
10. STA	BILITY AND REACTIVIT	Υ		
Rea	activity	:	No hazards to be specially ment	ioned.
Che	emical stability	:	Stable under normal conditions.	
Pos tion	sibility of hazardous read s	;- :	No dangerous reaction known ur	nder conditions of normal use.
Cor	nditions to avoid	:	No conditions to be specially me	ntioned.
Inco	ompatible materials	:	No materials to be especially me	entioned.
	ardous decomposition	:	No decomposition if stored and a	applied as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Remarks: This information is not available.
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401 GLP: yes
Acute inhalation toxicity	:	LC50 (Rat): > 5.53 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhala- tion toxicity





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Acute	e dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg Method: OECD Test Guideline 402	2
Reac droxi	-	rogena	ted tallow alkyl amines with seba	cic acid and calcium hy-
Acute	e oral toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: Directive 67/548/EEC, An GLP: yes	nnex V, B.1.
Acute	e dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 GLP: yes	2
2,5-b	is(tert-dodecyldithio	o)-1,3,4	-thiadiazole:	
Acute	e oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 407	1
Acute	e inhalation toxicity	:	LC50 (Rat): > 2.75 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 400 Assessment: The substance or mit tion toxicity Remarks: An LC50/inhalation/4h/r because no mortality of rats was of achievable concentration. Information given is based on data stances.	xture has no acute inhala- at could not be determined observed at the maximum
Acute	e dermal toxicity	:	 LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute de toxicity Remarks: Information given is based on data obtained similar substances. 	
Benz	enamine, N-phenyl-	, reacti	on products with 2,4,4-trimethylp	pentene:
	e oral toxicity	:		
Acute	e dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mi toxicity	





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Skin	corrosion/irritation		

Product:

Remarks

: This information is not available.

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

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

Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:

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

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

:	Rabbit
:	No skin irritation
:	OECD Test Guideline 404
:	No skin irritation
	:

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

Species	:	Rabbit
Assessment	:	No skin irritation
Result	:	No skin irritation

Serious eye damage/eye irritation

Product:

Remarks

: This information is not available.

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

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





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Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:

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

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

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

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

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

Respiratory or skin sensitisation

Product:

Remarks

: This information is not available.

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.
Method :	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.
GLP :	:	yes

Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:

Maximisation Test
Guinea pig
Does not cause skin sensitisation.
OECD Test Guideline 406
Does not cause skin sensitisation.
yes

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Test Type	:	Buehler Test
Species	:	Guinea pig
Assessment	:	Did not cause sensitisation on laboratory animals.





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Metho Resu		:	OECD Test Guideline 406 Did not cause sensitisation on labo	pratory animals.
Benz	enamine, N-phenyl-,	reacti	on products with 2,4,4-trimethylp	entene:
Speci Asses Metho Resu	ssment od	:	Guinea pig Does not cause skin sensitisation. OECD Test Guideline 406 Does not cause skin sensitisation.	
Germ	n cell mutagenicity			
Prod	uct:			
Geno	toxicity in vitro	:	Remarks: No data available	
Geno	toxicity in vivo	:	Remarks: No data available	
<u>Com</u>	ponents:			
Reac droxi		ogena	ted tallow alkyl amines with seba	cic acid and calcium hy
Geno	otoxicity in vitro	:	Test Type: Ames test Method: Mutagenicity (Escherichia assay) Result: negative GLP: yes	coli - reverse mutation
2.5-b	is(tert-dodecyldithio)-1.3.4	-thiadiazole:	
•	otoxicity in vitro	:	Test Type: In vitro mammalian cell	
			Test system: Chinese hamster fibr Metabolic activation: with and with Method: OECD Test Guideline 473 Result: negative Remarks: Information given is base similar substances.	oblasts out metabolic activation 3
	n cell mutagenicity - ssment	:	Metabolic activation: with and with Method: OECD Test Guideline 473 Result: negative Remarks: Information given is base	oblasts out metabolic activation } ed on data obtained from
Asses	n cell mutagenicity -	:	Metabolic activation: with and with Method: OECD Test Guideline 473 Result: negative Remarks: Information given is base similar substances. Tests on bacterial or mammalian of	oblasts out metabolic activation } ed on data obtained from
Asses	n cell mutagenicity - ssment inogenicity	:	Metabolic activation: with and with Method: OECD Test Guideline 473 Result: negative Remarks: Information given is base similar substances. Tests on bacterial or mammalian of	oblasts out metabolic activation } ed on data obtained from
Asses Carci	n cell mutagenicity - ssment inogenicity uct:	:	Metabolic activation: with and with Method: OECD Test Guideline 473 Result: negative Remarks: Information given is base similar substances. Tests on bacterial or mammalian of	oblasts out metabolic activation } ed on data obtained from
Asses Carci <u>Prode</u> Rema	n cell mutagenicity - ssment inogenicity uct:	:	Metabolic activation: with and with Method: OECD Test Guideline 473 Result: negative Remarks: Information given is base similar substances. Tests on bacterial or mammalian c mutagenic effects.	oblasts out metabolic activation } ed on data obtained from
Asses Carci Prode Rema	n cell mutagenicity - ssment inogenicity uct: arks ponents:	: : rdrotre	Metabolic activation: with and with Method: OECD Test Guideline 473 Result: negative Remarks: Information given is base similar substances. Tests on bacterial or mammalian c mutagenic effects.	oblasts out metabolic activation } ed on data obtained from





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ment

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Carcinogenicity - Assess-	:	Not classifiable as a human carcinogen.
ment		

Reproductive toxicity

Product:

Effects on fertility	:	Remarks: No data available
Effects on foetal develop- ment	:	Remarks: No data available

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

Reproductive toxicity - As-	:	No toxicity to reproduction
sessment		

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Effects on fertility	:	Species: Rat Application Route: Oral General Toxicity - Parent: NOAEL: 1,000 mg/kg body weight General Toxicity F1: NOAEL: 1,000 mg/kg body weight Method: OECD Test Guideline 421 Remarks: Information given is based on data obtained from similar substances.
Reproductive toxicity - As- sessment	:	No toxicity to reproduction Animal testing did not show any effects on foetal develop-

STOT - single exposure

Components:

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole: Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

ment.

STOT - repeated exposure

Components:

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Assessment	:	The substance or mixture is not classified as specific target
		organ toxicant, repeated exposure.







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Repeated dose toxicity

Product:

Remarks

: This information is not available.

Components:

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Species	: Rat
NOAEL	: 250 mg/kg
Application Route	: Oral
Method	: OECD Test Guideline 421
Remarks	: Information given is based on data obtained from similar sub-
	stances.

Aspiration toxicity

Product:

This information is not available.

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:

No aspiration toxicity classification

Further information

Product:

Remarks

: Information given is based on data on the components and the toxicology of similar products.

12. ECOLOGICAL INFORMATION

Ecotoxicity			
<u>Product:</u> Toxicity to fish	:	Remarks: No data available	
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available	
Toxicity to algae	:	Remarks: No data available	
Toxicity to microorganisms	:	Remarks: No data available	
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Components:

Distillates (petroleum), hydrotr	reated heavy paraffinic:
Toxicity to fish :	LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h Test Type: Immobilization Method: OECD Test Guideline 202 GLP: yes
Toxicity to daphnia and other : aquatic invertebrates (Chron- ic toxicity)	NOEC (Daphnia magna (Water flea)): 10 mg/l Exposure time: 21 d Test Type: semi-static test Method: OECD Test Guideline 211 GLP: yes
Reaction mixture of hydrogena droxide:	ated tallow alkyl amines with sebacic acid and calcium hy-
Toxicity to fish :	LC50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Test Type: Immobilization Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae :	EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Test Type: Growth inhibition Method: OECD Test Guideline 201 GLP: yes

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 41 mg/l Exposure time: 48 h Method: OECD Test Guideline 202





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Toxic	ity to algae	:	EC50 (Pseudokirchneriella subcar mg/l Exposure time: 72 h Test Type: Growth inhibition Method: OECD Test Guideline 201	
Ecoto	oxicology Assessment	t		
Acute	aquatic toxicity	:	Harmful to aquatic life.	
Chror	nic aquatic toxicity	:	Harmful to aquatic life with long last	sting effects.
	enamine, N-phenyl-, re ity to fish	eacti :	on products with 2,4,4-trimethylp LC50 (Danio rerio (zebra fish)): > Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203	100 mg/l
	ity to daphnia and other ic invertebrates	· :	EC50 (Daphnia magna (Water flea Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes	
Toxic	ity to algae	:	EC50 (Desmodesmus subspicatus Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 20	
Toxic	ity to microorganisms	:	EC50 (activated sludge): > 100 mg Exposure time: 3 h Test Type: Respiration inhibition Method: OECD Test Guideline 209	-
Ecoto	oxicology Assessment	t		
Chror	nic aquatic toxicity	:	This product has no known ecotox	ticological effects.
Persi	stence and degradabi	lity		
<u>Produ</u>				
Biode	gradability	:	Remarks: No data available	
Physi ity	co-chemical removabil-	:	Remarks: No data available	

Components:

Distillates (petroleum), hydrotreated heavy paraffinic:





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Biode	egradability	: aerobic Inoculum: activated sludge Result: Not rapidly biodegradable Biodegradation: 3 % Exposure time: 28 d Method: OECD Test Guideline 301 GLP: yes	В
Reac droxi		rogenated tallow alkyl amines with seba	cic acid and calcium hy
	egradability	 Primary biodegradation Inoculum: activated sludge Result: Not rapidly biodegradable Biodegradation: 26.1 % Exposure time: 28 d Method: OECD Test Guideline 301 GLP: yes 	IF
2,5-bi	is(tert-dodecyldithi	o)-1,3,4-thiadiazole:	
Biode	egradability	 Primary biodegradation Inoculum: activated sludge Result: Not readily biodegradable. Biodegradation: 0 % Exposure time: 28 d Method: OECD Test Guideline 301 	C
Benz	enamine, N-phenyl	-, reaction products with 2,4,4-trimethylp	entene:
	egradability	: aerobic Inoculum: activated sludge Result: Not rapidly biodegradable Biodegradation: 1 % Exposure time: 28 d Method: OECD Test Guideline 301 GLP: yes	
Bioad	ccumulative potent	al	
Prod	uct:		
Bioac	cumulation	: Remarks: This mixture contains no be persistent, bioaccumulating and This mixture contains no substanc persistent and very bioaccumulating	toxic (PBT). e considered to be very
<u>Com</u>	ponents:		
		nydrotreated heavy paraffinic:	
Partiti	ion coefficient: n-	: log Pow: > 2	
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octan	ol/water			
Reac droxi		gena	ted tallow alkyl amines with sebac	cic acid and calcium hy
	ion coefficient: n- ol/water	:	log Pow: 0.9 - 18	
2,5-bi	is(tert-dodecyldithio)-	·1,3,4	-thiadiazole:	
	cumulation	:	Species: Fish Bioconcentration factor (BCF): 3.16	3
	ion coefficient: n- ol/water	:	log Pow: 8 (20 °C)	
Benz	enamine, N-phenyl-, r	eacti	ion products with 2,4,4-trimethylpe	entene:
Bioac	cumulation	:	Bioconcentration factor (BCF): 1,73	80
	ion coefficient: n- ol/water	:	log Pow: 6.66 (23 °C) pH: 6.67 Method: OECD Test Guideline 123 GLP: yes	
Mobi	lity in soil			
Prod	uct:			
Mobil	ity	:	Remarks: No data available	
	bution among environ- al compartments	:	Remarks: No data available	
Othe	r adverse effects			
Produ	uct:			
Additi matio	onal ecological infor- n	:	No information on ecology is availa	ble.
<u>Com</u>	oonents:			
Distil	lates (petroleum), hyd	drotr	eated heavy paraffinic:	
	Its of PBT and vPvB	:	Non-classified vPvB substance Nor	n-classified PBT substan





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13. DISPOSAL CONSIDERATIONS

Disposal m	ethods
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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.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

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.

15. REGULATORY INFORMATION

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

Hazardous Substance Act B.E. 2535	:	Not applicable
Emergency Decree on Controlling the Use of Volatile Substances B.E. 2533	:	Not applicable

16. OTHER INFORMATION

Date format

: yyyy/mm/dd

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)





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ACGIH / TWA

: 8-hour, time-weighted average

AICS - Australian Inventory of Chemical Substances; 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 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; 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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