

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758 - GB



DSL-1220

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1.0	05.06.2023	Date of first issue: 05.06.2023	05.06.2023

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

1.1 Product identifier

Product name : DSL-1220

Article-No. : 340025

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Lubricating oil

Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Company : 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

National contact :

1.4 Emergency telephone number

Emergency telephone number : +49 89 7876 700 (24 hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Long-term (chronic) aquatic hazard, Category 3

H412: Harmful to aquatic life with long lasting effects.

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.

Additional Labelling

EUH208 Contains triphenyl phosphite. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : ester oil
Synthetic hydrocarbon oil

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w)
White mineral oil (petroleum)	8042-47-5 232-455-8	Asp. Tox.1; H304		>= 1 - < 10
lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0 276-737-9 649-482-00-X	Asp. Tox.1; H304	Note L	>= 1 - < 10
Benzenamine, N-	68411-46-1	Repr.2; H361f		>= 0.25 - < 1

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phenyl-, reaction products with 2,4,4-trimethylpentene	270-128-1	Aquatic Chronic3; H412		
Phenol, isobutylated, phosphate (3:1)	68937-40-6 273-065-8	Aquatic Acute1; H400 Aquatic Chronic1; H410	M-Factor: 1/1	$\geq 0.25 - < 1$
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	945-730-9	Aquatic Acute1; H400 Aquatic Chronic3; H412	M-Factor: 1/	$\geq 0.25 - < 1$
triphenyl phosphate	115-86-6 204-112-2	Aquatic Acute1; H400 Aquatic Chronic2; H411	M-Factor: 1/1	$\geq 0.1 - < 0.25$
triphenyl phosphite	101-02-0 202-908-4 015-105-00-7	Acute Tox.4; H302 Skin Irrit.2; H315 Eye Irrit.2; H319 Skin Sens.1; H317 STOT RE2; H373 Aquatic Acute1; H400 Aquatic Chronic1; H410	$\geq 5\%$ Skin Irrit.2, H315 $\geq 5\%$ Eye Irrit.2, H319 M-Factor: 1/1	$\geq 0.1 - < 0.25$

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled : Obtain medical attention.
Remove person to fresh air. If signs/symptoms continue, get medical attention.

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- Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
Wash off immediately 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.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do NOT induce vomiting.
Obtain medical attention.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Allergic appearance
- Risks : May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Hazardous combustion products : Carbon oxides

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5.3 Advice for firefighters

- 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.
- Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Evacuate personnel to safe areas.
Use personal protective equipment.
Ensure adequate ventilation.
Do not breathe vapours or spray mist.
Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

- Environmental precautions : Do not allow contact with soil, surface or ground water.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Do not breathe vapours or spray mist.
Avoid contact with skin and eyes.
For personal protection see section 8.
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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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.
Do not ingest.
Do not repack.
Do not re-use empty containers.
These safety instructions also apply to empty packaging which may still contain product residues.
Keep container closed when not in use.

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

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : 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.

7.3 Specific end use(s)

Specific use(s) : Specific instructions for handling, not required.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
triphenyl phosphate	115-86-6	TWA	3 mg/m ³	GB EH40 (2005-04-06)
		STEL	6 mg/m ³	GB EH40 (2005-04-06)

Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health effects	Value
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Workers	Inhalation	Long-term systemic effects	5.29 mg/m ³
	Workers	Dermal	Long-term systemic effects	41.67 mg/kg bw/day

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White mineral oil (petroleum)	Workers	Inhalation	Long-term systemic effects	160 mg/m ³
	Workers	Dermal	Long-term systemic effects	220 mg/kg bw/day
lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Workers	Inhalation	Long-term systemic effects	2.7 mg/m ³
	Workers	Inhalation	Long-term local effects	5.6 mg/m ³
	Workers	Skin contact	Long-term systemic effects	1 mg/kg bw/day
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Workers	Inhalation	Long-term systemic effects	0.31 mg/m ³
	Workers	Skin contact	Long-term systemic effects	0.44 mg/kg bw/day
Phenol, isobutyleneated, phosphate (3:1)	Workers	Inhalation	Long-term systemic effects	7.58 mg/m ³
	Workers	Skin contact	Long-term systemic effects	10.75 mg/kg
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Workers	Inhalation	Long-term systemic effects	3.5 mg/m ³
	Workers	Inhalation	Acute systemic effects	28 mg/m ³
	Workers	Dermal	Long-term systemic effects	0.5 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	4 mg/kg bw/day
triphenyl phosphate	Workers	Inhalation	Long-term systemic effects	5.2 mg/m ³
	Workers	Skin contact	Long-term systemic effects	5.55 mg/kg bw/day
triphenyl phosphite	Workers	Inhalation	Long-term systemic effects	1.06 mg/m ³
	Workers	Inhalation	Long-term local effects	
Remarks: No hazard identified				

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	Workers	Inhalation	Acute systemic effects	
	Remarks:No hazard identified			
	Workers	Inhalation	Acute local effects	
	Remarks:No hazard identified			
	Workers	Dermal	Long-term systemic effects	0.3 mg/kg
	Workers	Dermal	Long-term local effects	0.0117 mg/cm2
	Workers	Dermal	Acute systemic effects	
	Remarks:No hazard identified			
	Workers	Dermal	Acute local effects	0.0117 mg/cm2

Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value	
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Fresh water	0.034 mg/l	
	Marine water	0.003 mg/l	
	Microbiological Activity in Sewage Treatment Systems	10 mg/l	
	Fresh water sediment	0.446 mg/kg	
	Marine sediment	0.045 mg/kg	
	Soil	1.76 mg/kg	
Phenol, isobutyleneated, phosphate (3:1)	Fresh water	0.00399 mg/l	
	Marine water	0.000399 mg/l	
	Intermittent use/release	0.00202 mg/l	
	Fresh water sediment	3.12 mg/kg	
	Marine sediment	0.312 mg/kg	
	Soil	0.246 mg/kg	
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Fresh water	0.002 mg/l	
	Marine water	0.0002 mg/l	
	Fresh water sediment	3.43 mg/kg	
	Marine sediment	0.343 mg/kg	
	triphenyl phosphate	Fresh water	0.004 mg/l
		Intermittent use/release	0.003 mg/l
Marine water		0.0004 mg/l	
Sewage treatment plant		5 mg/l	
	Fresh water sediment	1.103 mg/kg dry	

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		weight (d.w.)
	Marine sediment	0.11 mg/kg dry weight (d.w.)
	Soil	0.218 mg/kg dry weight (d.w.)
	Oral	16.667 mg/kg

8.2 Exposure controls

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Eye/face protection : Safety glasses with side-shields

Hand protection

Material : Nitrile rubber
Break through time : > 10 min
Protective index : Class 1

Remarks : Wear protective gloves. The 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.

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.

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type A-P

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid
Colour : colourless
Odour : characteristic
Odour Threshold : No data available

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pH : Not applicable

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : > 260 °C
Method: open cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : < 0.001 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0.917 (20 °C)
Reference substance: Water
The value is calculated

Density : 0.92 g/cm³
(20 °C)

Bulk density : No data available

Solubility(ies)
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : 240 mm²/s (40 °C)

Explosive properties : Not explosive

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Oxidizing properties : No data available

9.2 Other information

Sublimation point : No data available

Self-ignition : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No conditions to be specially mentioned.

10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

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

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

Acute dermal toxicity : Symptoms: Redness, Local irritation

Components:

White mineral oil (petroleum):

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- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
- Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based:

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

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

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
- Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Phenol, isobutyleneated, phosphate (3:1):

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
- Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

- :
Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

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Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity

triphenyl phosphate:

Acute oral toxicity : LD50 (Rat): > 20,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 200 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 10,000 mg/kg
Method: OECD Test Guideline 402

triphenyl phosphite:

Acute oral toxicity : LD50 (Rat): 1,590 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 6.7 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The component/mixture is minimally toxic after single contact with skin.

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

White mineral oil (petroleum):

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

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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

Phenol, isobutyleneated, phosphate (3:1):

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

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

:

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

triphenyl phosphate:

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

triphenyl phosphite:

Assessment	:	Irritating to skin.
Result	:	Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks : This information is not available.

Components:

White mineral oil (petroleum):

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

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

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

Phenol, isobutyleneated, phosphate (3:1):

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

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

:

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

triphenyl phosphate:

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

triphenyl phosphite:

Species	:	Rabbit
Assessment	:	Irritating to eyes.
Method	:	OECD Test Guideline 405
Result	:	Irritating to eyes.

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

White mineral oil (petroleum):

Test Type	:	Buehler Test
Species	:	Guinea pig

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

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

Species : Guinea pig
Assessment : Did not cause sensitisation on laboratory animals.
Method : OECD Test Guideline 406
Result : Did not cause sensitisation on laboratory animals.

Phenol, isobutyleneated, phosphate (3:1):

Assessment : Does not cause skin sensitisation.
Result : Does not cause skin sensitisation.

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

:
Assessment : Did not cause sensitisation on laboratory animals.
Result : Did not cause sensitisation on laboratory animals.

triphenyl phosphate:

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

triphenyl phosphite:

Exposure routes : Dermal
Species : Mouse
Method : OECD Test Guideline 429
Result : May cause sensitisation by skin contact.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available
Genotoxicity in vivo : Remarks: No data available

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Components:

White mineral oil (petroleum):

Germ cell mutagenicity-
Assessment : Tests on bacterial or mammalian cell cultures did not show
mutagenic effects.

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

triphenyl phosphate:

Genotoxicity in vitro : Test Type: reverse mutation assay
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Germ cell mutagenicity-
Assessment : Tests on bacterial or mammalian cell cultures did not show
mutagenic effects.

triphenyl phosphite:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse
Cell type: Bone marrow
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

Product:

Remarks : No data available

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Components:

White mineral oil (petroleum):

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

triphenyl phosphate:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Components:

White mineral oil (petroleum):

Reproductive toxicity - Assessment : - Fertility -
No toxicity to reproduction
- Teratogenicity -
No effects on or via lactation

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

Reproductive toxicity - Assessment : - Fertility -
Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

:
Reproductive toxicity - Assessment : - Fertility -
No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

triphenyl phosphate:

Effects on foetal development : Species: Rabbit
Application Route: Oral
General Toxicity Maternal: NOAEL: >= 200 mg/kg body weight

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Teratogenicity: NOAEL: \geq 200 mg/kg body weight
Developmental Toxicity: NOAEL: \geq 200 mg/kg body weight
Embryo-foetal toxicity: NOAEL: \geq 200 mg/kg body weight
Method: OECD Test Guideline 414
Result: No effects on fertility and early embryonic
development were detected.

Reproductive toxicity -
Assessment : - Fertility -
No toxicity to reproduction
- Teratogenicity -
No effects on or via lactation

triphenyl phosphite:

Effects on foetal
development : Species: Rat
Application Route: Oral
General Toxicity Maternal: NOAEL: 15
Teratogenicity: NOAEL: 40
Developmental Toxicity: NOAEL: 15
Embryo-foetal toxicity: NOAEL: 15
Method: OECD Test Guideline 422

STOT - single exposure

Product:

Remarks : No data available

Components:

White mineral oil (petroleum):

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

STOT - repeated exposure

Product:

Remarks : No data available

Components:

White mineral oil (petroleum):

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

Repeated dose toxicity

Product:

Remarks : This information is not available.

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Components:

triphenyl phosphate:

Species : Rat
NOAEL : 105 mg/kg
Application Route : Oral
Method : OECD Test Guideline 408

Species : Rabbit
NOAEL : 1,000 mg/kg
Application Route : Dermal

triphenyl phosphite:

Species : Rat
NOAEL : 15 mg/kg
Method : OECD Test Guideline 422
Target Organs : Nervous system
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Repeated dose toxicity - Assessment : Chronic exposure damages the brain and the central nervous system.

Aspiration toxicity

Product:

This information is not available.

Components:

White mineral oil (petroleum):

May be fatal if swallowed and enters airways.

lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based:

May be fatal if swallowed and enters airways.

triphenyl phosphate:

No aspiration toxicity classification

Further information

Product:

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

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SECTION 12: Ecological information

12.1 Toxicity

Product:

- Toxicity to fish : Remarks: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 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

12.2 Persistence and degradability

Product:

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

12.3 Bioaccumulative potential

Product:

- 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).

12.4 Mobility in soil

Product:

- Mobility : Remarks: No data available
- Distribution among environmental compartments : Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

- Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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12.6 Other adverse effects

Product:

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information : Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and national regulations.

Waste codes should be assigned by the user based on the application for which the product was used.

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.

The following Waste Codes are only suggestions:

Waste Code : unused product
13 02 06*, synthetic engine, gear and lubricating oils

uncleaned packagings
15 01 10*, packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

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IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) : Conditions of restriction for the following entries should be considered:
Number on list 3

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1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (Number on list 52)

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation (UK SVHC) : This product does not contain substances of very high concern (UK: The REACH etc. (Amendment) Regulations, Article 57).

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) (GB POPs) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer (EC 1005/2009) : Not applicable

UK REACH List of substances subject to authorisation (Annex XIV) (UK. REACH Annex XIV) : Not applicable

GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation (GB PIC) : Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH) : Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable

Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to new and expectant mothers at work contained in Regulation 16 to 18) and of the Pregnant Workers Directive 92/85/EEC.

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

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15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of R-Phrases

Note L : The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

Full text of H-Statements

H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H319 : Causes serious eye irritation.
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.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Note L : The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

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GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; 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

Classification of the mixture:

Aquatic Chronic 3 H412

Classification procedure:

Calculation method

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