

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 22-5-2018 Revision date: 19-6-2024 Supersedes version of: 13-2-2024 Version: 1.9

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

1.1. Product identifier

Product form : Mixture

Trade name : Putoline Hydraulic Clutch Fluid

Product code : PW.40.13

Type of product : Lubricants

Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public

Main use category : Industrial use, Professional use, Consumer use

Use of the substance/mixture : Hydraulic oil

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Putoline Oil
Dollegoorweg 15
NL 7602 EC Almelo
Netherlands
T 0031 (0)546 81 81 65
vib@putoline.com

1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aspiration hazard, Category 1 H304
Hazardous to the aquatic environment – Chronic Hazard, H412

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May be fatal if swallowed and enters airways. Harmful to aquatic life with long lasting effects.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS08

Signal word (CLP) : Danger

Contains : Distillates (petroleum), hydrotreated light naphthenic; Lubricating oils (petroleum), C15-30,

hydrotreated neutral oil-based; Distillates (petroleum), hydrotreated light paraffinic

Hazard statements (CLP) : H304 - May be fatal if swallowed and enters airways.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children. P273 - Avoid release to the environment.

P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do

NOT induce vomiting. P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Distillates (petroleum), hydrotreated light naphthenic (64742-53-6), Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0), Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Distillates (petroleum), hydrotreated light naphthenic (64742-53-6), Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0), Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Highly refined mineral oils and additives.

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (Note L)	CAS-No.: 72623-86-0 EC-No.: 276-737-9 EC Index-No.: 649-482-00-X REACH-no: 01-2119474878- 16	50 – 80	Asp. Tox. 1, H304

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated light naphthenic (Note L)	CAS-No.: 64742-53-6 EC-No.: 265-156-6 EC Index-No.: 649-466-00-2 REACH-no: 01-2119480375- 34	25 – 50	Asp. Tox. 1, H304
Distillates (petroleum), hydrotreated light paraffinic (Note L)	CAS-No.: 64742-55-8 EC-No.: 265-158-7 EC Index-No.: 649-468-00-3 REACH-no: 01-2119487077-	1 – 2,5	Asp. Tox. 1, H304
2,6-di-tert-butylphenol	CAS-No.: 128-39-2 EC-No.: 204-884-0 REACH-no: 01-2119490822- 33	0,1 – 1	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	CAS-No.: 68411-46-1 EC-No.: 270-128-1 REACH-no: 01-2119491299- 23	< 0,3	Repr. 2, H361f

Comments : The highly refined mineral oil contains <3% (w/w) DMSOextract, according to IP346.

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- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Repeated exposure may cause skin dryness or cracking. Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects : No additional information available.

Symptoms/effects after inhalation : Although no appropriate human or animal health effects data are known to exist, this

material is expected to be an inhalation hazard.

Symptoms/effects after skin contact : None under normal conditions. Symptoms/effects after eye contact : None under normal conditions.

Symptoms/effects after ingestion : Risk of lung oedema.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard Combustible liquid.

Explosion hazard No direct explosion hazard.

Hazardous decomposition products in case of fire Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other

5.3. Advice for firefighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper

protective equipment, including respiratory protection.

Protection during firefighting Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.

Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Wear recommended personal protective equipment. Protective equipment

Emergency procedures Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to

prevent migration and entry into sewers or streams. Stop leak without risks if possible.

Methods for cleaning up Take up liquid spill into absorbent material.

Other information Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Keep container closed when not in use. Keep in a cool, well-ventilated place away from Storage conditions

Storage temperature : 0 - 40 °C

Packaging materials : Store always product in container of same material as original container.

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Putoline Hydraulic Clutch Fluid	Putoline Hydraulic Clutch Fluid	
EU - Indicative Occupational Exposure Limit (IOEL)		
Exposure limits/standards for materials that can be formed when handling this product. When mists/aerosols can occur the following is recommended	5 mg/m³ - ACGIH TLV (inhalable fraction).	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

Eye protection			
Туре	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

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Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	≥0.35		EN ISO 374

Other skin protection

Materials for protective clothing:

Wear suitable protective clothing

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid Colour : Yellow. Odour : characteristic. Odour threshold : Not available Melting point : Not applicable

: -66 °C - ASTM D5950 (pour point) Freezing point

Boiling point : Not available Flammability : Not applicable

Explosive properties : Presents no particular fire or explosion hazard.

Lower explosion limit : Not available Upper explosion limit : Not available

Flash point 144 °C - ASTM D92 (COC)

Auto-ignition temperature : Not available Decomposition temperature : Not available : Not available

Viscosity, kinematic 10 mm²/s (40 °C) - ASTM D7042 Solubility Water: Insoluble / Slightly miscible

Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50°C : Not available

Density 0,85 kg/l (15 °C) - ASTM D4052

Relative density Not available Relative vapour density at 20°C : Not available Particle characteristics Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 0 %

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts violently with (strong) oxidizers.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No decomposition if stored normally.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Acute toxicity (inhalation)	Not classified		
2,6-di-tert-butylphenol (128-39-2)			
LD50 oral rat	> 5000 mg/kg		
LD50 dermal rabbit	> 2000 mg/kg		
Distillates (petroleum), hydrotreated light nap	ohthenic (64742-53-6)		
LD50 oral rat	> 5000 mg/kg bodyweight		
LD50 dermal rabbit	> 2000 mg/kg bodyweight		
LC50 Inhalation - Rat (Dust/Mist)	> 5,53 mg/l/4h		
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)			
LD50 oral rat	> 5000 mg/kg (OECD 401 method)		
LD50 dermal rabbit	> 2000 mg/kg (OECD 402 method)		
LC50 Inhalation - Rat	> 5,53 mg/l (OECD 403 method)		
Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)			
LD50 oral rat	> 5000 mg/kg		
LD50 dermal rabbit	> 2000 mg/kg		
LC50 Inhalation - Rat (Dust/Mist)	5,53 mg/l/4h		
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)			
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral		

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Toxicity), Remarks on results: other:

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Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)			
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:		
Skin corrosion/irritation :	Not classified		
Additional information :	Repeated exposure may cause skin dryness or cracking.		
Serious eye damage/irritation :	Not classified		
Respiratory or skin sensitisation :	Not classified		
Germ cell mutagenicity :	Not classified		
Carcinogenicity :	Not classified		
Reproductive toxicity :	Not classified		
STOT-single exposure :	Not classified		
STOT-repeated exposure :	Not classified		
Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)			
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)		
Aspiration hazard :	May be fatal if swallowed and enters airways.		
Putoline Hydraulic Clutch Fluid			
Viscosity, kinematic	10 mm²/s (40 °C) - ASTM D7042		
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)			
Viscosity, kinematic	9 mm²/s		
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)			
Viscosity, kinematic	< 20,5 mm²/s (40 °C) - ASTM D7042		
Aliphatic, alicyclic or aromatic hydrocarbon	Yes		

Aliphatic, alicyclic or aromatic hydrocarbon Yes

Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) 352,7 mm²/s Temp.: '40°C' Parameter: 'kinematic viscosity (in mm²/s)'

< 20,5 mm²/s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Viscosity, kinematic

Viscosity, kinematic

: Harmful to aquatic life with long lasting effects. Ecology - general : May cause long lasting harmful effects to aquatic life. Ecology - water

Hazardous to the aquatic environment, short-term : Not classified

: Harmful to aquatic life with long lasting effects. Hazardous to the aquatic environment, long-term

(chronic)

2,6-di-tert-butylphenol (128-39-2)	
EC50 - Crustacea [1]	0,45 mg/l (Daphnia magna, freshwater, 48h)
EC50 72h - Algae [1]	1,4 mg/l (Selenastrum capricornutum, freshwater)

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Distillates (petroleum), hydrotreated light nab+thenic (64742-53-6) LC50 - Fish [1] > 100 mg/l (96 h) EC50 - Crustacea [1] > 100 mg/l EC50 72h - Algae [1] > 100 mg/l NOEC (acute) ≥ 100 (72h) Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0) LC50 - Fish [1] > 1000 mg/l EC50 - Crustacea [1] > 10000 mg/l NOEC (acute) ≥ 100 mg/l (Pseudokirchnerella subcapitata, 72h) (OECD 211 method) NOEC chronic fish > 1000 mg/l NOEC chronic crustacea > 10 mg/l (Daphnia magna, 21d) (OECD 211 method) NOEC chronic algae ≥ 100 mg/l Distillates (petroleum), hydrotreated light partificic (64742-55-8) LC50 - Fish [1] > 100 mg/l 96h EC50 - Crustacea [1] > 100 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products wtt 2,4,4-trimethylpentene (6841-46-1) 1 LC50 - Fish [1] > 100 mg/l Test organisms (species): Daphnia magna EC50 - Crustacea [1] 51 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) NOEC chronic crustacea 1,69 mg/l <th></th> <th></th>			
EC50 - Crustacea [1] > 10 g/l EC50 72h - Algae [1] > 100 mg/l NOEC (acute) ≥ 100 (72h) Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0) LC50 - Fish [1] > 100 mg/l EC50 - Crustacea [1] > 10000 mg/l NOEC (acute) ≥ 100 mg/l (Pseudokirchnerella subcapitata, 72h) (OECD 211 method) NOEC chronic fish > 1000 mg/l NOEC chronic crustacea > 10 mg/l (Daphnia magna, 21d) (OECD 211 method) NOEC chronic algae ≥ 100 mg/l Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) LC50 - Fish [1] > 100 mg/l 96h EC50 - Crustacea [1] > 10000 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danho rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] 51 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)		
EC50 72h - Algae [1] > 100 mg/l NOEC (acute) ≥ 100 (72h) Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0) LC50 - Fish [1] > 100 mg/l EC50 - Crustacea [1] > 10000 mg/l NOEC (acute) ≥ 100 mg/l (Pseudokirchnerella subcapitata, 72h) (OECD 211 method) NOEC chronic fish > 1000 mg/l NOEC chronic crustacea > 10 mg/l (Daphnia magna, 21d) (OECD 211 method) NOEC chronic algae > 100 mg/l Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) LC50 - Fish [1] > 100 mg/l EC50 - Crustacea [1] > 1000 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Daphnia magna EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus (previous name: Scenedesmus subspicatus)	LC50 - Fish [1]	> 100 mg/l (96 h)	
NOEC (acute) ≥ 100 (72h)	EC50 - Crustacea [1]	> 10 g/l	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0) LC50 - Fish [1] > 100 mg/l EC50 - Crustacea [1] > 1000 mg/l NOEC (acute) ≥ 100 mg/l (Pseudokirchnerella subcapitata, 72h) (OECD 211 method) NOEC chronic fish > 1000 mg/l NOEC chronic crustacea > 10 mg/l (Daphnia magna, 21d) (OECD 211 method) NOEC chronic algae ≥ 100 mg/l Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) LC50 - Fish [1] > 100 mg/l 96h EC50 - Crustacea [1] > 1000 mg/l EC50 72h - Algae [1] > 100 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	EC50 72h - Algae [1]	> 100 mg/l	
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EC50 - Crustacea [1] > 10000 mg/l NOEC (acute) ≥ 100 mg/l (Pseudokirchnerella subcapitata, 72h) (OECD 211 method) NOEC chronic fish > 1000 mg/l NOEC chronic crustacea > 10 mg/l (Daphnia magna, 21d) (OECD 211 method) NOEC chronic algae ≥ 100 mg/l Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) LC50 - Fish [1] > 100 mg/l 96h EC50 - Crustacea [1] > 1000 mg/l EC50 72h - Algae [1] > 100 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	Lubricating oils (petroleum), C15-30, hydrotre	ated neutral oil-based (72623-86-0)	
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NOEC chronic fish > 1000 mg/l NOEC chronic crustacea > 10 mg/l (Daphnia magna, 21d) (OECD 211 method) NOEC chronic algae ≥ 100 mg/l Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) LC50 - Fish [1] > 100 mg/l 96h EC50 - Crustacea [1] > 100 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Daphnia magna EC50 - Crustacea [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	EC50 - Crustacea [1]	> 10000 mg/l	
NOEC chronic crustacea > 10 mg/l (Daphnia magna, 21d) (OECD 211 method) NOEC chronic algae ≥ 100 mg/l Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) LC50 - Fish [1] > 100 mg/l 96h EC50 - Crustacea [1] > 1000 mg/l EC50 72h - Algae [1] ≥ 100 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] 51 mg/l Test organisms (species): Daphnia magna EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	NOEC (acute)	≥ 100 mg/l (Pseudokirchnerella subcapitata, 72h) (OECD 211 method)	
NOEC chronic algae ≥ 100 mg/l Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) LC50 - Fish [1] > 100 mg/l 96h EC50 - Crustacea [1] > 10000 mg/l EC50 72h - Algae [1] ≥ 100 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] 51 mg/l Test organisms (species): Daphnia magna EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	NOEC chronic fish	> 1000 mg/l	
Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) LC50 - Fish [1] > 100 mg/l 96h EC50 - Crustacea [1] > 10000 mg/l EC50 72h - Algae [1] ≥ 100 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Fish [1] > 100 mg/l Test organisms (species): Daphnia magna EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	NOEC chronic crustacea	> 10 mg/l (Daphnia magna, 21d) (OECD 211 method)	
LC50 - Fish [1] > 100 mg/l 96h EC50 - Crustacea [1] > 10000 mg/l EC50 72h - Algae [1] ≥ 100 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] 51 mg/l Test organisms (species): Daphnia magna EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	NOEC chronic algae	≥ 100 mg/l	
EC50 - Crustacea [1] > 10000 mg/l EC50 72h - Algae [1] ≥ 100 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] 51 mg/l Test organisms (species): Daphnia magna EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)		
EC50 72h - Algae [1] ≥ 100 mg/l NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] 51 mg/l Test organisms (species): Daphnia magna EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	LC50 - Fish [1]	> 100 mg/l 96h	
NOEC chronic crustacea 10 mg/l 21d Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] 51 mg/l Test organisms (species): Daphnia magna > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	EC50 - Crustacea [1]	> 10000 mg/l	
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] 51 mg/l Test organisms (species): Daphnia magna EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	EC50 72h - Algae [1]	≥ 100 mg/l	
LC50 - Fish [1] > 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) EC50 - Crustacea [1] 51 mg/l Test organisms (species): Daphnia magna EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	NOEC chronic crustacea	10 mg/l 21d	
EC50 - Crustacea [1] 51 mg/l Test organisms (species): Daphnia magna > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)		
EC50 72h - Algae [1] > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	LC50 - Fish [1]	> 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)	
Scenedesmus subspicatus)	EC50 - Crustacea [1]	51 mg/l Test organisms (species): Daphnia magna	
NOEC chronic crustacea 1,69 mg/l	EC50 72h - Algae [1]		
	NOEC chronic crustacea	1,69 mg/l	

12.2. Persistence and degradability

Putoline Hydraulic Clutch Fluid		
Persistence and degradability	Not rapidly degradable	
2,6-di-tert-butylphenol (128-39-2)		
Persistence and degradability	Not rapidly degradable	
Biodegradation	5 % Sturm (28 d)	
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)		
Persistence and degradability	Not readily biodegradable, Inherently biodegradable.	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)		
Persistence and degradability	Not readily biodegradable.	
Biodegradation	31 % (28d) (OECD 301F method)	
Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)		
Persistence and degradability	Not established.	
Biodegradation	31 % (OECD 301F method)	

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Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Persistence and degradability Not rapidly degradable	
40.2 Diagrammulatina natontial	

12.3. Bioaccumulative potential		
2,6-di-tert-butylphenol (128-39-2)		
Partition coefficient n-octanol/water (Log Kow)	4,5 Octanol/water (0,1 d)	
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)		
Bioaccumulative potential Bioaccumulative potential.		
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)		
Partition coefficient n-octanol/water (Log Kow)	> 6	
Bioaccumulative potential Bioaccumulative potential.		
Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)		
Partition coefficient n-octanol/water (Log Pow)	> 6	
Bioaccumulative potential	Not established.	

12.4. Mobility in soil

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)		
Ecology - soil Insoluble in water.		
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)		
Ecology - soil Insoluble in water.		

12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Distillates (petroleum), hydrotreated light naphthenic (64742-53-6), Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0), Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Distillates (petroleum), hydrotreated light naphthenic (64742-53-6), Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0), Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation Disposal must be done according to official regulations.

Dispose of contents/container in accordance with licensed collector's sorting instructions. Waste treatment methods

Sewage disposal recommendations Disposal must be done according to official regulations.

Product/Packaging disposal recommendations Dispose in a safe manner in accordance with local/national regulations.

Additional information Do not re-use empty containers.

13 01 11* - synthetic hydraulic oils European List of Waste (LoW, EC 2000/532)

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HP Code

: HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.

HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID	
14.1. UN number or ID n	14.1. UN number or ID number				
Not regulated for transport					
14.2. UN proper shippin	g name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
14.3. Transport hazard	class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
14.4. Packing group					
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
14.5. Environmental hazards					
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
No supplementary information available					

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	Putoline Hydraulic Clutch Fluid; 2,6-di-tert- butylphenol; Distillates (petroleum), hydrotreated light naphthenic; Lubricating oils (petroleum), C15-30, hydrotreated neutral oil- based; Distillates (petroleum), hydrotreated light paraffinic; Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	Putoline Hydraulic Clutch Fluid ; 2,6-di-tert- butylphenol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

VOC Directive (2004/42)

VOC content : 0 %

Biocide Regulation (528/2012)

Child-resistant fastening : Applicable Tactile warning : Applicable

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out:

Distillates (petroleum), hydrotreated light naphthenic

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Revision date	Modified	
	Supersedes	Modified	
	Type of product	Added	
1.2	Function or use category	Removed	
4.2	Symptoms/effects after skin contact	Added	
4.2	Symptoms/effects after inhalation	Added	
4.2	Symptoms/effects after eye contact	Added	
5.2	Explosion hazard	Added	
5.2	Hazardous decomposition products in case of fire	Modified	
5.3	Firefighting instructions	Added	
6.1	Emergency procedures	Added	
6.1	Protective equipment	Added	
6.1	General measures	Added	
6.3	For containment	Added	
7.1	Additional hazards when processed	Added	
7.2	Technical measures	Added	
7.2	Packaging materials	Added	
8.2	Personal protective equipment	Added	
10.3	Possibility of hazardous reactions	Modified	
13.1	Sewage disposal recommendations	Added	
13.1	Additional information	Added	
13.1	Regional waste regulation	Added	
13.1	H code	Added	

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)

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Abbreviations and acronyms:		
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

Full text of H- and EUH-statements:		
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1	
Asp. Tox. 1	Aspiration hazard, Category 1	
H304	May be fatal if swallowed and enters airways.	
H315	Causes skin irritation.	
H361f	Suspected of damaging fertility.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	

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Full text of H- and EUH-statements:	
H412	Harmful to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.