

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : TURMOFLUID 40 B
Revision date : 06.11.2024
Print date : 06.11.2024

Version (Revision) : 4.3.0 (4.2.0)

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

1.1 Product identifier

TURMOFLUID 40 B

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

Relevant identified uses

Product Categories [PC]

PC24 - Lubricants, greases, release products

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Lubricant Consult GmbH

Street : Gutenbergstraße 13

Postal code/city : 63477 MAINTAL (GERMANY)

Telephone : +49 6109/7650-0

Telefax : +49 6109/7650-51

E-mail : msds-request@lubcon.com

Information contact : Environment, Health & Safety: Dr. Rüdiger Hofmann

1.4 Emergency telephone number

+49 6109/7650-0

Monday to Friday 8:00 AM to 4:00 PM (CET)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

None

2.2 Label elements

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

Special rules for supplemental label elements for certain mixtures

EUH208

Contains N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazol-1-methylamine ; N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazol-1-methylamine. May produce an allergic reaction.

EUH210

Safety data sheet available on request.

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

2-Ethylhexyl zinc dithiophosphate ; REACH registration No. : 01-2119493635-27-xxxx ; EC No. : 224-235-5; CAS No. : 4259-15-8

Weight fraction : $\geq 0,5 - < 1 \%$

Classification 1272/2008 [CLP] : Lact. ; H362 STOT SE 2 ; H371 STOT RE 2 ; H373 Eye Dam. 1 ; H318 Aquatic Chronic 2 ; H411

Further ingredients

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Ester oil

SHC (Synthetic hydrocarbon)

Additives not to declare

Additional information

2-Ethylhexyl zinc dithiophosphate (CAS No. 4259-15-8) is classified according to Korean law (KOSHA, Korea Occupational Safety & Health Agency). Under REACH legislation H362, H371 and H373 are not required.
Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

In case of skin contact

Remove contaminated, saturated clothing immediately. Wash immediately with: Water and soap In case of skin irritation, consult a physician.

After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Let water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry extinguishing powder. Carbon dioxide (CO₂). ABC-powder. BC-powder. Foam. Dry sand.

Unsuitable extinguishing media

Water. Strong water jet. High power water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon monoxide (CO). Carbon dioxide (CO₂). Burning produces heavy smoke.

5.3 Advice for firefighters

Use suitable breathing apparatus.

5.4 Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

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Special danger of slipping by leaking/spilling product.

6.1 Personal precautions, protective equipment and emergency procedures

None

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Ensure waste is collected and contained. Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Soak up inert absorbent and dispose as waste requiring special attention. Suitable material for taking up: Universal binder. Kieselguhr.

6.4 Reference to other sections

None

SECTION 7: Handling and storage



7.1 Precautions for safe handling

Protective measures

It is recommended to design all work processes always so that the following is excluded: Generation/formation of mist. Avoid: Inhalation of vapours or spray/mists. Skin contact, Eye contact. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

7.2 Conditions for safe storage, including any incompatibilities

Hints on joint storage

Storage class : 10

Storage class (TRGS 510) : 10

Keep away from

Food and feedingstuffs

Further information on storage conditions

Keep/Store only in original container. Keep container tightly closed. Protect against UV-radiation/sunlight. Humidity. Contact with air/oxygen. Dust deposits.

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Take the precautions customary when handling chemicals. Change contaminated, saturated clothing. Keep away from sources of ignition - No smoking.

8.1 Control parameters

DNEL/DMEL and PNEC values

DNEL/DMEL

Limit value type :	DNEL Consumer (systemic) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Oral
Exposure frequency :	Long-term (repeated)
Limit value :	= 0,19 mg/kg/d
Limit value type :	DNEL Consumer (systemic) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)

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Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	= 1,67 mg/m ³
Limit value type :	DNEL Consumer (systemic) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	= 4,8 mg/kg
Limit value type :	DNEL worker (local) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Dermal
Exposure frequency :	Short-term (acute)
Limit value :	= 0,09 mg/cm ²
Limit value type :	DNEL worker (local) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Inhalation
Exposure frequency :	Short-term (acute)
Limit value :	= 0,42 ppm
Limit value type :	DNEL worker (local) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	= 0,09 mg/cm ² /d
Limit value type :	DNEL worker (local) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	= 0,07 ppm
Limit value type :	DNEL worker (systemic) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Dermal
Exposure frequency :	Short-term (acute)
Limit value :	= 0,14 mg/kg/d
Limit value type :	DNEL worker (systemic) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Inhalation
Exposure frequency :	Short-term (acute)
Limit value :	= 0,42 ppm
Limit value type :	DNEL worker (systemic) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	= 9,59 mg/kg
Limit value type :	DNEL worker (systemic) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	= 0,21 ppm
Limit value type :	DNEL worker (systemic) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	= 6,6 mg/m ³
Limit value type :	DNEL worker (systemic) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	= 9,6 mg/kg/d
PNEC	
Limit value type :	PNEC (Air) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Limit value :	= 7,1 mg/m ³
Limit value type :	PNEC (Aquatic, freshwater) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Limit value :	= 0,004 mg/l
Limit value type :	PNEC (Aquatic, marine water) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)

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Limit value : = 0,0046 mg/l
Limit value type : PNEC (Sediment, freshwater) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Limit value : = 0,0701 mg/kg
Limit value type : PNEC (Sediment, marine water) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Limit value : = 0,00701 mg/kg
Limit value type : PNEC Soil (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Limit value : = 0,0548 mg/kg
Limit value type : PNEC (Secondary poisoning) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Limit value : = 8,3 mg/kg
Limit value type : PNEC (Sewage treatment plant) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Limit value : = 3,8 mg/l

8.2 Exposure controls

Personal protection equipment

Eye/face protection

Eye protection: not required. Avoid: Eye contact.

Recommended eye protection articles

DIN EN 166

Skin protection

Hand protection

Wear suitable gloves.

By long-term hand contact : Tested protective gloves must be worn.

Suitable material : PE (Polyethylene). NR (natural rubber, natural latex). NBR (Nitrile rubber).

Breakthrough time (maximum wearing time) : PE < 30 min. ; NR < 10 min.; NBR > 480 min.

Thickness of the glove material : min. 0,38 mm

Recommended glove articles : EN ISO 374; DIN EN 420 Uvex. KCL, MAPA. Or comparable articles from other companies.

Respiratory protection

No special measures are necessary. Avoid: Inhalation of vapours or spray/mists

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Colour : yellow-orange

Safety relevant basis data

Physical state :			liquid
Solidifying point :	(1013 hPa)	<	-20 °C
Initial boiling point and boiling range :	(1013 hPa)	>	300 °C
Decomposition temperature :	(1013 hPa)	>	280 °C
Flash point :	(1013 hPa)	>=	270 °C
Vapour pressure :	(50 °C)	<	0,1 hPa
Density :	(20 °C)	=	0,92 g/cm ³
Viscosity :	(40 °C)	=	270 mm ² /s
Viscosity :	(100 °C)	=	32 mm ² /s

9.2 Other information

None

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SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Strong acid. Strong alkali.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

Oxidising agent, strong.

10.6 Hazardous decomposition products

Carbon monoxide (CO). Nitrogen oxides (NOx). Sulphur dioxide (SO₂). Phosphorus oxides (e.g. P₂O₅). Gases/vapours, harmful.

SECTION 11: Toxicological information

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

Acute effects

By analogy:

Acute oral toxicity

Parameter : LD50
Exposure route : Oral
Species : Rat
Effective dose : > 2000 mg/kg

Acute dermal toxicity

Parameter : LD50
Exposure route : Dermal
Species : Rabbit
Effective dose : > 2000 mg/kg

Irritant and corrosive effects

Primary irritation to the skin

Parameter : Primary irritation to the skin (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Species : Rabbit
Result : Not an irritant

Irritation to eyes

Parameter : Irritation to eyes (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Species : Rabbit
Result : Risk of serious damage to eyes
Method : OECD 405

Sensitisation

In case of skin contact

Parameter : Skin sensitisation (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Species : Guinea pig
Result : Not sensitising.
Method : OECD 406

Repeated dose toxicity (subacute, subchronic, chronic)

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Subacute oral toxicity

Parameter : NOAEL(C) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route : Oral
Species : Rat
Effective dose : = 125 mg/kg

Subacute dermal toxicity

Parameter : NOAEL(C) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route : Dermal
Effective dose : = 1250 mg/kg
Exposure time : 1 d

Subacute inhalation toxicity

Parameter : NOAEC (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route : Inhalation
Effective dose : = 214 mg/m³
Exposure time : 1 d

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

Parameter : Carcinogenicity (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Test result : Negative.
Parameter : NOAEL(C) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route : Oral
Species : Rat
Effective dose : = 30 mg/kg

Germ cell mutagenicity

In vitro mutagenicity

Parameter : In vitro mutagenicity (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Test result : Ames test negative.

In vivo mutagenicity

Parameter : In vivo mutagenicity (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Test result : Negative.

Reproductive toxicity

Developmental toxicity/teratogenicity

One generation reproduction toxicity test

Parameter : One generation reproduction toxicity test (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)

Exposure route : Oral
Species : Rat
Effective dose : = 30 mg/kg
Method : OECD 421

Parameter : NOAEL(C) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)

Exposure route : Oral
Species : Rat
Effective dose : = 30 mg/kg
Test result : Questionable.

STOT-single exposure

STOT SE 1 and 2

Parameter : NOAEL(C) (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Exposure route : Oral
Species : Rat
Effective dose : = 30 mg/kg

11.2 Information on other hazards

No information available.

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter : LC50 (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Species : Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : = 4,4 mg/l
Exposure time : 96 h
Method : OECD 203

Acute (short-term) daphnia toxicity

Parameter : EC50 (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : = 75 mg
Exposure time : 48 h
Method : OECD 202

Chronic (long-term) daphnia toxicity

Parameter : NOEC (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Chronic (long-term) daphnia toxicity
Effective dose : = 0,4 mg/l
Exposure time : 21 d

Acute (short-term) algae toxicity

Parameter : EC50 (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Species : Scenedesmus subspicatus
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : > 240 mg/l
Exposure time : 72 h

Bacteria toxicity

Parameter : EC50 (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Species : Pseudomonas putida
Evaluation parameter : Bacteria toxicity
Effective dose : = 380 mg/l
Exposure time : 16 h
Method : OECD 209

12.2 Persistence and degradability

Biodegradation

Parameter : Biodegradation (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Inoculum : Degree of elimination
Effective dose : < 5 %
Exposure time : 5 d
Evaluation : Poorly biodegradable.
Method : OECD 301D

Overall evaluation on the mixture: Not readily biodegradable (according to OECD criteria).

12.3 Bioaccumulative potential

Parameter : Partition coefficient: n-octanol/water (2-Ethylhexyl zinc dithiophosphate ; CAS No. : 4259-15-8)
Concentration : = 3,59

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12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

Endocrine disrupting potential: None known.

12.7 Other adverse effects

This product does not contain nanoparticles.

12.8 Overall evaluation

If product enters soil, it will be mobile and may contaminate groundwater. In accordance with the required stability the product is poorly biodegradable.

SECTION 13: Disposal considerations

Dispose according to legislation. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.1 Waste treatment methods

Send to a hazardous waste incinerator facility under observation of official regulations. Collect the waste separately. Evidence for disposal must be provided.

Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

13 02 06 - Synthetic engine, gear and lubricating oils

Waste code packaging

15 01 10 - Packaging containing residues of or contaminated by hazardous substances. - Dispose of completely emptied containers as combustible waste or metal waste depending on the material.

SECTION 14: Transport information

14.1 UN number or ID number

No dangerous good in sense of these transport regulations.

14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4 Packing group

No dangerous good in sense of these transport regulations.

14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

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

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National regulations

Restrictions of occupation

Not relevant

Störfallverordnung

Not subject to StörfallVO.

Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to AwSV

Other regulations, restrictions and prohibition regulations

General Water Assessment Methodology (ABM) of the Netherlands: Slightly harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Switzerland

VOCV-Regulation

Volatile organic compounds (VOC) content in percent by weight : 0 %

Additional information

TSCA (Toxic Substances Control Act) - USA, United States of America

All chemical substances in this mixture are included on or are exempted from listing on the TSCA Inventory for Chemical Substances.

California Proposition 65 - State of California

Based on available information this product does not contain any components or chemicals currently known to the State of California to cause cancer, birth defects or reproductive harm at levels which would be subject to Proposition 65.

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

16.1 Indication of changes

03. Hazardous ingredients · 15. National regulations · 09. Flash point

16.2 Abbreviations and acronyms

None

16.3 Key literature references and sources for data

Includes supplements in accordance with Regulation (EU) 2020/878 of June 18, 2020

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The statement is derived from the properties of the single components.

16.5 Relevant H- and EUH-phrases (Number and full text)

H318	Causes serious eye damage.
H362	May cause harm to breast-fed children.
H371	May cause damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily

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valid for the new made-up material.
