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

1.1. Product identifier

Trade name/designation:

TAKTOL Ultra E-Synth 5W-40

Article No.: U0540000

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

Use of the substance/mixture:

Lubricant

1.3. Details of the supplier of the safety data sheet

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

Taktol Schmierstoffe GmbH, Am Gewerbepark 5, 12683 Berlin-Biesdorf, Deutschland.

Manufactured: Deutsche Ölwerke Lubmin GmbH for Taktol Schmierstoffe GmbH

Freesendorfer Weg 4, 17509 Lubmin, Germany

Telephone: +49 38354 1795 30, Telefax: +49 38354 1795 79

E-mail: info@taktol.de **Website:** www.taktol.de

E-mail (competent person): info@taktol.de

1.4. Emergency telephone number

Abt. Produktsicherheit, 24h: +49 700 24 112 112 (Company ID: LUB) (outside USA/Canada), 011 49 700 24 112 112 (Company ID: LUB) (inside USA/Canada), +49 38354 1795 30 (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

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

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental hazard information: -

Precautionary Statements:

2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.2. Mixtures

No data available

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. Consult a doctor immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor immediately.

After ingestion:

Rinse mouth thoroughly with water. Do NOT induce vomiting. Consult a doctor immediately. Rinse mouth. 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 known symptoms to date.

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

Treat symptomatically. Observe risk of aspiration if vomiting occurs.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Use water spray jet to protect personnel and to cool endangered containers. Water spray jet alcohol resistant foam Extinguishing powder Carbon dioxide (CO2)

Unsuitable extinguishing media:

Full water iet

5.2. Special hazards arising from the substance or mixture

During heating or in case of fire, toxic gases is possible.

The formation of combustible vapours is possible at temperatures above: Flash point Combustible

Hazardous combustion products:

Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx),

During heating or in case of fire, toxic gases is possible. In case of fire: Gases/vapours, toxic

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing. Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Use personal protection equipment. Special danger of slipping by leaking/spilling product. Remove persons to safety. Avoid breathing dust/fume/gas/mist/vapours/spray.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

Emergency procedures:

Remove persons to safety.

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6.1.2. For emergency responders

Personal protection equipment:

Use personal protection equipment. Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment:

Suitable material for taking up: Sand, Kieselguhr, Universal binder, Chemical binding agents, containing acids Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:

Remove from the water surface (e.g. skimming, sucking). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Other information:

Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7 Disposal: see section 13

Personal protection equipment: see section 8

6.5. Additional information

Clear spills immediately. Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Personal protection equipment: see section 8 When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Do not put any product-impregnated cleaning rags into your trouser pockets. Clear spills immediately. Use appropriate container to avoid environmental contamination. Wear personal protection equipment (refer to section 8).

Fire prevent measures:

No special fire protection measures are necessary. Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking.

Environmental precautions:

See section 8.

Advices on general occupational hygiene

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. When using do not eat, drink or smoke. Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Suitable container/equipment material: Floors should be impervious, resistant to liquids and easy to clean. Shafts and sewers must be protected from entry of the product. Keep/Store only in original container. **Hints on storage assembly:**

not required

Storage class: 10 - Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:

Store in a cool dry place. Keep away from heat.

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7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values No

data available

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type		
		② Exposure route		
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe	8.05 mg/m ³	① DNEL worker		
xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8		② inhalative, long-term, systemic		
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe	11.4 mg/kg	① DNEL worker		
xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8	bw/day	② dermal, long-term, systemic		
calcium carbonate	6.36 mg/m ³	① DNEL worker		
CAS No.: 471-34-1		② inhalative, long-term, systemic		
Benzenamine, N-phenyl-, reaction products with	4.37 mg/m ³	① DNEL worker		
2,4,4-trimethylpentene CAS No.: 68411-46-1		② inhalative, long-term, systemic		
Benzenamine, N-phenyl-, reaction products with	1.09 mg/m³	① DNEL Consumer		
2,4,4-trimethylpentene CAS No.: 68411-46-1		② inhalative, long-term, systemic		
Benzenamine, N-phenyl-, reaction products with	0.62 mg/kg	① DNEL worker		
2,4,4-trimethylpentene CAS No.: 68411-46-1	bw/day	② dermal, long-term, systemic		
Benzenamine, N-phenyl-, reaction products with	0.31 mg/kg	① DNEL Consumer		
2,4,4-trimethylpentene CAS No.: 68411-46-1	bw/day	② dermal, long-term, systemic		
Benzenamine, N-phenyl-, reaction products with	0.31 mg/kg	① DNEL Consumer		
2,4,4-trimethylpentene CAS No.: 68411-46-1	bw/day	② oral, long-term, systemic		
Isomer mixture of C7-9-alkyl-3- (3,5-di-	2.33 mg/m ³	① DNEL worker		
transbutyl-4-hydroxyphenyl) propionate CAS No.: 125643-61-0		② inhalative, long-term, systemic		
Substance name	PNEC Value	① PNEC type		
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8	4 μg/l	① PNEC aquatic, freshwater		
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8	4.6 μg/l	① PNEC aquatic, marine water		
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8	100 mg/l	① PNEC sewage treatment plant		
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8	0.04508 mg/ kg	① PNEC sediment, freshwater		
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8	0.00451 mg/ kg	① PNEC sediment, marine water		
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Substance name	PNEC Value	① PNEC type
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8	0.00676 mg/ kg	① PNEC soil
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8	10.67 mg/kg	① PNEC secondary poisoning
Phosphorodithioic acid, mixed O, O-bis (2-ethylhe xyl and isobutyl) esters, zinc salts CAS No.: 68442-22-8	45 μg/l	① PNEC aquatic, intermittent release
calcium carbonate CAS No.: 471-34-1	100 mg/l	① PNEC sewage treatment plant
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene CAS No.: 68411-46-1	0.0338 mg/l	① PNEC aquatic, freshwater
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene CAS No.: 68411-46-1	0.0038 mg/l	① PNEC aquatic, marine water
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene CAS No.: 68411-46-1	10 mg/l	① PNEC sewage treatment plant
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene CAS No.: 68411-46-1	0.446 mg/kg	① PNEC sediment, freshwater
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene CAS No.: 68411-46-1	0.0446 mg/ kg	① PNEC sediment, marine water
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene CAS No.: 68411-46-1	2.59 mg/kg	① PNEC soil

8.2. Exposure controls

8.2.1. Appropriate engineering controls

See section 7. No additional measures necessary.

8.2.2. Personal protection equipment

Eye/face protection:

During transfer: Eye glasses with side protection

Wear eye/face protection. DIN EN 166

Skin protection: Hand

protection

Suitable material: NBR (Nitrile rubber), PVC (polyvinyl chloride), CR (polychloroprene, chloroprene rubber)

Thickness of the glove material: >= 0,4 mm

Breakthrough time (maximum wearing time) 480 min

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Tested protective gloves must be worn: EN ISO 374

Suitable protective clothing: Protective clothing In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

Usually no personal respirative protection necessary. Filtering device with filter or ventilator filtering device of type: A

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8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

8.3. Additional information

Mineral oil mist limits:

OSHA PEL - value 5 mg / m³, ACGIH STEL - value of 10 mg / m³

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid Colour: tawny

Odour: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
рН	not determined			
Melting point	not determined			
Freezing point	not determined			
Initial boiling point and boiling range	not determined			
Decomposition temperature	not determined			
Flash point	242 °C			
Evaporation rate	not determined			
Auto-ignition temperature	not determined			
Upper/lower flammability or explosive limits	not determined			
Vapour pressure	not determined			
Vapour density	not determined			
Density	848 kg/m³	15 °C		
Bulk density	not determined			
Water solubility	not determined			
Partition coefficient: n-octanol/ water	not determined			
Dynamic viscosity	not determined			
Kinematic viscosity	81 mm ² /s	40 °C		
Pour Point	-60 °C			

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No known hazardous reactions. Combustible

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

To avoid thermal decomposition do not overheat.

10.5. Incompatible materials

Materials to avoid: Acid, Oxidising agent, Reducing agent

10.6. Hazardous decomposition products

Hazardous combustion products: Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx) Gases/vapours, toxic

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

Based on available data, the classification criteria are not met.

Acute dermal toxicity:

Based on available data, the classification criteria are not met.

Acute inhalation toxicity:

Based on available data, the classification criteria are not met.

Skin corrosion/irritation:

Based on available data, the classification criteria are not met.

Serious eye damage/irritation:

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation:

Based on available data, the classification criteria are not met.

Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

Carcinogenicity:

Based on available data, the classification criteria are not met.

Reproductive toxicity:

Based on available data, the classification criteria are not met.

STOT-single exposure:

Based on available data, the classification criteria are not met.

STOT-repeated exposure:

Based on available data, the classification criteria are not met.

Aspiration hazard:

Based on available data, the classification criteria are not met.

Additional information:

No data available

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste according to applicable legislation.

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

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Appropriate disposal / Package:

Non-contaminated packages may be recycled.

13.2. Additional information

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

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	
14.1. UN-No.			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	
14.2. UN proper sh	ipping name		
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	-

14.3. Transport hazard class(es)

not relevant

14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture 15.1.1. EU legislation

Other regulations (EU):

Safety data sheet available for professional user on request.

15.1.2. National regulations



[DE] National regulations

Störfallverordnung for substances

contained in the product:

E2 Hazardous to the aquatic environment in Category Chronic 2 (Wenn Wassergefährdend!) **Technische**

Anleitung Luft (TA-Luft)

Remark:

To follow: 5.2.5.

Water hazard class (WGK)

WGK:

2 - deutlich wassergefährdend

Source: Self-classification (mixture; calculation rule).

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Technische Regeln für Gefahrstoffe

TRGS 510

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Berufsgenossenschaftliche Vorschriften (BGV)

Berufsgenossenschaftliche Informationen (BGI) 868 Berufsgenossenschaftliche Regeln (BGR) 189, 190, 192, 195

Other regulations, restrictions and prohibition regulations

Altöl-Verordnung (AltölV)

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1. Indication of changes

Abschnitt 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

16.3. Key literature references and sources for data

67/548/EEC - Dangerous Substances Directive

1999/45/EEC - Dangerous Preparations Directive

EC 1907/2006 - REACH Regulation

1272/2008 EC - Regulation on classification, labeling and packaging of substances and mixtures, and amending Directives 67/548/EEC and 1999/45/EC and Regulation (EC) No 1907/2006

Regulation (EC) No 1907/2006 (REACH), Annex II

European Chemicals Agency (ECHA), C & L classification and labeling inventory

European Chemicals Agency (ECHA), ECHA CHEM Registered substances

OECD The Global Portal to Information on Chemical Substances (ChemPortal)

Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA): GESTIS

substance database and International limit values for chemical substances

Federal Environment Agency, Section IV 2.4: Documentation and Information Centre substances hazardous to water Rigoletto (catalog substances hazardous to water)

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

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

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

No data available

16.6. Training advice

No data available

16.7. Additional information

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 valid for the new madeup material.