

Safety Data Sheet according to RL 1907/2006 EU
Tower Clock Oil

Article No: TK1310

 Document-No.: S0636
 Preparation date: 04/2019

 Edition: 1
 Page: 1 of 10

Print date: 2019-04-16

1. Substance / Preparation and Company Name

- 1.1 Commercial Name: Tower Clock Oil
- 1.2 Identified uses: Industrial Use. Lubricant.
- 1.2.1 Uses advised against:
- 1.2 Company: Dr. Tillwisch GmbH Phone: +49-7451-5386-0
 Werner Stehr Fax: +49-7451-5386-70
 Murber Steige 26 E-Mail: info@tillwisch-stehr.com
 D-72160 Horb
 Germany
- 1.3 Emergency Call: +49-7451-5386-0 8.00 am until 5.00 pm UTC + 1h
 +49-171-5477230 5.00 pm until 8.00 am UTC + 1h

2. Hazards Identification

- 2.1 Classification of the substance or mixture:

Hazard Statements:

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents / container according to local / regional / international regulations.

- 2.1 Label Elements:

 Hazard Pictograms
 GHS09

Signal Word: Caution



The classification and identification referred to guideline (EG) Nr.1272/2008 with amendments and additions.

The product is classified and labeled according to GHS.

3. Composition / Components

- 3.1 Substance: Mixture:

- 3.2 Chemical Characterization:

Components / REACH - Identifiers	Percentage	CAS-Nr.	Einecs	Hazard Statements	Hazard Pictograms
Hydrocarbons				none	none


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Components / REACH - Identifiers	Percentage	CAS-Nr.	Einecs	Hazard Statements	Hazard Pictograms
Additives Registration number: 01-2119565113-46	> 1 % - < 5 %	128-37-0	204-991-4	H400 H410	GHS09 

Classification according to EU guidelines and national guidelines, latest version.

4. Precautions for First Aid

- 4.1 Contact with Skin: Remove contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. After work wash hands with water and soap.
- 4.2 Contact with Eyes: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Immediately call a physician.
- 4.3 Inhalation: After inhalation of decomposition products in case of accidental - fresh air. Consult a doctor.
- 4.4 Ingestion: If swallowed, do not induce vomiting; seek medical advice.
- 4.5 Other Information: -

5. Fire Fighting Procedures

- 5.1 Suitable Extinguisher: CO₂ – foam or powder, water spray, alcohol resistant foam. Cool containers with water in case of fire.
- 5.2 Unsuitable Extinguisher: Jet of water.
- 5.3 Special Hazards / Endangering:
In the thermal decomposition toxic gases may be create.
Carbon oxides.
Exposure to decomposition products may cause a health hazard.
Do not empty contaminated water into drains, ground and lakes or rivers.
- 5.4 Special Protection Equipment:
Wear self-contained breathing apparatus and tightly closing protective suit.

6. Precautions for Uncontrolled Release

- 6.1 Personal Precautions:
Avoid contact with eyes, skin and clothing.
- 6.2 Environmental Protection:
Do not empty the product into drains, ground and waters.

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6.3 Spill Response:
 Cover with inorganic absorbent material. The material must be disposed of as hazardous waste.
 Clean contaminated objects and the floor thoroughly, observing environmental regulations.

6.4 Other Information:

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7. Handling and Storage

7.1 Handling:
 When using this product do not eat, drink or smoke. Keep away from food and drink.
 Keep container tightly closed when not in use.

7.2 Storage:
 Keep only in the original container and protected from light and heat.
 Storing large quantities over type-approved drip pans with sufficient volume.
 Avoid contact with oxidizing agent. Keep away from inflammable materials and fluids.

7.3 Determined Use:
 No special references.

8. Precautionary Information

8.1 Control parameters

Occupational exposure limits.

AWG Threshold limit value (Germany) IOELV (European Union)	No data available.
BWG Biological threshold limit value (Germany)	No data available.

DNEL Derived-No-Effect-Level / Derived-Minimal- Effect-Level (DMEL)

Longterm – Systemic effects		
Dermal - Hydrocarbons - Additives	DNEL	220 mg / kg / 8 h No data available.

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Longterm – Systemic effects		
Inhalation - Hydrocarbons - Additives	DNEL	160 mg aerosol / m ³ / 8 h No data available.
Longterm – Local effects		
Inhalation	DNEL	No data available.
Shortterm – Systemic effects		
Inhalation	DNEL	No data available.
Shortterm – Local effects		
Inhalation	DNEL	No data available.

PNEC Predicted No Effect Concentration

Soil	No data available.
Sewage treatment plant	No data available.
Marine water	No data available.
Fresh water sediment	No data available.
Fresh water	No data available.
Sporadic release	No data available.

8.2 Technical Precautions for the avoidance of the exposition on the job:
 Ensure adequate ventilation, especially in confined areas. Draw off vapors.

8.3 Delimitation and monitoring of the exposition:

General protective and hygiene measures:
 When using do not eat, drink or smoke.
 Keep away from food, drink and animal feedingstuffs.
 Take off all contaminated clothing immediately.
 Wash hands before breaks and at end of work.
 Avoid contact with skin and eyes.
 Regular cleaning of equipment and the work area.

Breath Protection
 Not necessary at room temperature.

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Skin Protection

After work wash hands with water and soap.

Preventive skin protection required - Use protective hand lotion or wear suitable gloves from oil resistant material. Avoid longer and intensive skin contact.

Suitable gloves:Material: Nitrile rubber
Category: III
Thickness: 0,4 mm
Permeation time: Level 6 (> 480 min.)

The data were determined on laboratory conditions. The conditions in practical application can deviate from these, the data can be only a guideline assistance with the selection of the suitable gloves.

Contaminated gloves should be changed as fast as possible.

Eye Protection

Wear eye / face protection, if product may be splashed.

Body Protection

Wear suitable protective clothing.

- 8.4 Other Information:
Protective measures for chemicals must be noticed.
-

9. Physical and Chemical Data

9.1	Condition: liquid	Colour: yellowish	Odour: odourless
9.2	Change of Condition:		
	9.2.1 Boiling Point:	> 150° C (> 302° F)	
	9.2.2 Pourpoint:	- 25° C (-13° F)	
9.3	Flash Point:	about 230° C (about 446° F)	ISO 2592
9.4	Ignition Point:	no data available	DIN 51794
9.5	Explosion Limits:		
	lower: not applicable	upper: not applicable	
9.6	Vapour Pressure at 20°C (68° F):	not applicable	
9.7	Density at 20°C (68° F):	0,90 g/cm ³	DIN 51757
9.8	Solubility in H ₂ O at 20°C (68° F):	< 0,1 g/l	
9.9	pH value:	neutral	
9.10	Viscosity at 20°C (68° F):	180 mm ² /s	DIN 51562
9.11	Other Information:		

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10. Stability and Reactivity Data

- 10.1 Stability:
No decomposition if used according to specifications. The base oils in this product are combustible.
- 10.2 Dangerous Chemical Reactions:
Avoid contact with oxidizing agent and inflammable materials.
- 10.3 Hazardous Decomposition Products:
Incomplete burn or thermal decomposition leads to the formation of smoke, carbon dioxide and carbon monoxide.
- 10.4 Other Information:

11. Toxicological Data

Acute Oral Toxicity (Hydrocarbons):	LD ₅₀ :> 5000 mg/kg, rat. OECD-Method 401.
Acute Oral Toxicity (Additives):	LD ₅₀ : 2930 mg/kg, rat.
Acute Dermal Toxicity (Hydrocarbons):	LD ₅₀ : > 2000 mg/kg, rabbit. OECD-Method 402.
Acute Dermal Toxicity (Additives):	LD ₅₀ : > 2000 mg/kg, rabbit.
Acute Inhalational Toxicity (Hydrocarbons):	LC ₅₀ : < 5000 mg/kg, rat / 4 h. OECD-Method 403.
Acute Inhalational Toxicity (Additives):	No data available.
Repeat-dose toxicity (Oral-Feed-Rat):	
Acute Dermal Toxicity (Hydrocarbons):	No data available.
Acute Dermal Toxicity (Additives):	No data available.

Effects after skin contact:

Hydrocarbons:	Not irritating (rabbit). OECD-Method 404.
Additives:	Slight irritation (rabbit).

Effects after eye contact:

Hydrocarbons:	Not irritating (rabbit). OECD-Method 405.
Additives:	Slight irritation (rabbit).

Effects after resorption / inhalation / swallowing:

Hydrocarbons:	No data available.
Additives:	No known significant effects or critical hazards.

Sensitisation:

Hydrocarbons:	No sensitizing effects (guinea pig). OECD-Method 406.
Additives:	Does not cause skin sensitization.

Mutagenicity:

Hydrocarbons:	Ames-Test. No mutagenic effect. OECD-Method 471.
Additives:	No evidence of mutagenic effect.

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Carcinogenicity:

Hydrocarbons: Subacute dermal toxicity: NOAEL 1000 mg/kg (rabbit).
OECD-Method 410.
Subchronic dermal toxicity: NOAEL > = 2000 mg/kg (rat).
OECD-Method 411.
Chronic oral toxicity: NOAEL > 1200 mg/kg (F-344 rat strain).
OECD-Method 453.
No carcinogenic effect.

Additives: No evidence of a carcinogenic effect.

Reproductive toxicity:

Hydrocarbons: Chromosomal Aberration Test. Rating: negative. OECD-Method 474.
Additives: No evidence of repro -toxic properties.

Aspiration hazard:

Hydrocarbons: No data available.
Additives: No data available.

Specific target organ toxicity – single exposure:

Hydrocarbons: No data available.
Additives: No data available.

Specific target organ toxicity – repeated exposure:

Hydrocarbons: No data available.
Additives: No data available.

12. Environmental Information

12.1 Ecological toxicity:

Acute Fish Toxicity:

Hydrocarbons: LC₅₀: > 1000 mg/l (96 h), *Leuciscus idus*. OECD-Method 203.
Additives: LC₅₀: > 0,57 mg/l (96 h), *Danio rerio*.

Acute Daphnia Toxicity:

Hydrocarbons: LL₅₀: > 100 mg/l (48 h), *Daphnia magna*. OECD-Method 202
Additives: LC₅₀: > 0,31 mg/l (48 h), *Daphnia magna*.

Acute Alga Toxicity:

Hydrocarbons: NOEL: >= 100 mg/l (72 h), *Pseudokirchnerella subcapitata*.
OECD-Method 201.
Additives: IC₅₀: > 0,42 mg/l (72 h), *Scenedesmus subspicatus*.

Acute Bacteria Toxicity:

Hydrocarbons: No data available.
Additives: No data available.

12.2 Mobility:

Mobility in Ground and Water:

Hydrocarbons: No data available.
Additives: No data available.

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Environmental Distribution Data:

Hydrocarbons: No data available.
Additives: No data available.

12.3 Persistence and Degradableness

Hydrocarbons: Inherently biodegradable. Elimination rate: 31,3 % (28 d).
Additives: Not readily biodegradable, < 10 % in 20 days.

12.4 Biodegradability:

Hydrocarbons: No data available.
Additives: LogPow: 5,10. On the bases of the distribution coefficient n-octanol / water an accumulation in organisms is possible.

12.5 Result of the determination of the PBT characteristics:

Hydrocarbons: No data available.
Additives: Not applicable.

12.6 Additional ecological information:

Do not discharge product unmonitored into the environment.

13. Waste Disposal Information

The allocation of the waste keys is to be accomplished branch and process specifically by the waste producer separately. The indicated waste keys are only recommendations for the disposal of the unmachined product.

13.1 Product:

EWC - Code: (European waste category list): 13 02 06*.
Synthetic machines -, transmission and lubricating oils

13.2 Package:

EWC - Code: (European waste category list): 15 01 10*
contaminated package.

13.3 Other Information:

-

14. Transport Information

14.1 General Information:

U.N. No.:
Packing group:

14.2 UN proper shipping name:

ADR
IMDG
IATA

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14.3 Transport hazard class

ADR		
unclassified		
IMDG		
unclassified		
IATA		
unclassified		

14.4 Environmental hazards :

-

14.5 Special precautions for user:

-

14.6 Other Information:

ADR
 Limited Stock (LQ):
 Transport category:
 Tunnel registration:
 UN „Model Regulation“

15. Regulations

15.1 Labelling according to EC Directives:

Classification and labeling according to EC No. 1272/2008.
 The product is subject to labeling according to GHS as environmentally hazardous.

15.2 National German Regulations:

Information about limitation of use:
 Employment restrictions concerning juveniles: Not applicable.
 Employment restrictions concerning pregnant and lactating women: Not applicable.

Classification according to TRBF:
 Not applicable.

Waterhazard class:

Hydrocarbons: WGK 1, slightly hazardous for water (KBWS-classification).
 Additives: WGK 1, slightly hazardous for water
 (KBWS-classification, identification number: 724).

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Storage class according to TRGS 510:

Other Regulations:

-

Special Information:

-

15.3 Chemical Safety Assessment:

-

15.4 Training advice:

Provide adequate information, instruction and training for operators.

16. Additional Information

The information of this Data Sheet represents our best knowledge. This information is for security reasons only and does not contain any characteristic properties guaranteed for a special application. Any use of the product which is not in conformance with this Data Sheet or which involves using the product in combination with any other products or processes is the responsibility of the user.

The product is intended for industrial transformation / use.