

SAFETY DATA SHEET

acc.to ISO/DIS 11014 for USA

PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name: TITAN SUPERGEAR LS 80W-90

Other means of identification: For further information, please refer to section 9 of the SDS.

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

Identified uses: Lubricant

Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier FUCHS LUBRICANTS GERMANY GmbH

Friesenheimer Str. 19

68169 Mannheim

Telephone: +49 621 3701-0 (ZENTRALE)

Fax: +49 621 3701-570

US Distributor

Fuchs Lubricants Co. 17050 Lathrop Avenue Harvey, IL 60426 (708) 333-8900

(800) 255-3924 24 hrs

Emergency

Contact for request of safety data sheets

E-mail: Automotive lubricants CS.Services-FLG@fuchs.com

Industrial lubricants

Telephone: +49 621 3701-0 (ZENTRALE)

Informing department for safety data sheets

E-mail: produktsicherheit-FLG@fuchs.com

1.4 US contact telephone : 708-333-8900 **Emergency telephone:** 800-255-3924

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product has been classified and labelled as hazardous according to the legislation in force.

Health Hazards

Skin sensitizer Category 1

Environmental Hazards

Chronic hazards to the aquatic environment Category 3

Hazard summary

Physical Hazards: No data available.

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2.2 Label Elements



Signal Words: Warning

Hazard Statement(s): H317: May cause an allergic skin reaction.

H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: P273: Avoid release to the environment.

P280: Wear protective gloves/ protective clothing/ eye protection/ face

protection.

Response: P333+P313: If skin irritation or rash occurs: Get medical

advice/attention.

Disposal: P501: Dispose of contents/ container to an approved facility in

accordance with local, regional, national and international regulations.

2.3 Other hazards: By handling of mineral oil products and chemical products no particular

hazard is known when normal precautions (item 7) and personal protective

equipment (item 8) are kept.

Unknown toxicity: Due to information available product does not contain any ingredients of

unknown toxicity.

3 COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

General information: Mixture containing severely refined base oils and additives.

| Chemical name | Identifier | Concentration * | Notes |
|---|--------------|-----------------|-------|
| organic Polysulphide | 68937-96-2 | 1.00 - <5.00% | |
| Base oil, low viscous | 64742-54-7 | 1.00 - <5.00% | |
| Alkylphosphorothioate, Long-chain alkyl amine | 947-129-7 | 0.01 - <1.00% | |
| dithiophosphoric acid derivative | 71888-91-0 | 0.10 - <1.00% | |
| alkenyl amine, long-chain | 1213789-63-9 | 0.01 - <0.25% | |

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.



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Classification

| Chemical name | Identifier | Classification |
|---|--------------|--|
| organic Polysulphide | 68937-96-2 | Aquatic Acute 1;H400, Aquatic Chronic 1;H410, Skin Sens. 1B;H317; M-Factor (aquatic acute): 1; M-Factor (aquatic chronic): 1 |
| Base oil, low viscous | 64742-54-7 | Asp. Tox. 1;H304 |
| Alkylphosphorothioate, Long-chain alkyl amine | 947-129-7 | Eye Irrit. 2;H319, Aquatic Acute 1;H400, Aquatic Chronic 2;H411; M-Factor (aquatic acute): 10; M-Factor (aquatic chronic): 1 |
| dithiophosphoric acid derivative | 71888-91-0 | Acute Tox. 4;H302, Skin Sens. 1B;H317, Eye Irrit. 2;H319, Aquatic Chronic 2;H411 |
| alkenyl amine, long-chain | 1213789-63-9 | Acute Tox. 4;H302, Asp. Tox. 1;H304, STOT SE 3;H335, STOT RE 2;H373, Skin Corr. 1B;H314, Aquatic Acute 1;H400, Aquatic Chronic 1;H410, Eye Dam. 1;H318; M-Factor (aquatic acute): 10; M-Factor (aquatic chronic): 10 |

Please note that the mineral oils and petroleum distillates used in our products are severely refined and have a DMSO extract < 3% as measured by method IP 346 and are not classified as carcinogenic according to Nota L/ Nota N of Annex VI of Regulation EC 1272/2008."

4 FIRST AID MEASURES

General: Instantly remove any clothing soiled by the product.

4.1 Description of first aid measures

Inhalation: Supply fresh air; consult doctor in case of symptoms.

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.

Skin Contact: Wash with soap and water.

Ingestion: Rinse mouth thoroughly.

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

May cause skin and eye irritation.

4.3 Indication of any immediate medical attention and special

treatment needed

Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media:

CO2, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant

added

Unsuitable extinguishing

media:

Water with a full water jet.

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5.2 Special hazards arising from the substance or mixture:

During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire-fighting procedures:

Move container from fire area if it can be done without risk. Dispose of fire debris and contaminated fire fighting water inaccordance with official regulations. Collect contaminated fire fighting water separately. It must not

enter drains.

Special protective

equipment for fire-fighters:

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

In case of spills, beware of slippery floors and surfaces.

6.2 Environmental Precautions:

Prevent from spreading (e.g. by binding or oil barriers). Avoid release to the environment. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so. Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning

up:

Absorb with liquid-binding material (sand, diatomite, acidbinders, universal binders, sawdust). Dispose of the material collected according to

regulations. Stop the flow of material, if this is without risk.

6.4 Reference to other

sections:

See Section 8 of the SDS for Personal Protective Equipment. See Section

7 for information on safe handling See Section 13 for information on

disposal.

SECTION 7: Handling and storage:

7.1 Precautions for safe

handling:

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Prevent formation of aerosols. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Observe good industrial hygiene practices.

Provide adequate ventilation.

7.2 Conditions for safe storage,

including any incompatibilities:

Do not heat up to temperatures close to the flash point.

7.3 Specific end use(s): Not applicable

EXPOSURE CONTROLS / PERSONAL PROTECTION

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8.1.Exposure Limits

| Chemical name | Туре | Exposure Limit Values | Source |
|---|------|-----------------------|---|
| Base oil, paraffinic - Inhalable fraction. | TWA | 5 mg/m3 | US. ACGIH Threshold Limit Values, as amended (03 2014) |
| Base oil, paraffinic | PEL | 500 ppm 2,000 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Base oil, paraffinic - Mist. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Base oil, paraffinic | TWA | 400 ppm 1,600 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| Base oil, paraffinic - Mist. | TWA | 5 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| Base oil, low viscous - Inhalable fraction. | TWA | 5 mg/m3 | US. ACGIH Threshold Limit Values, as amended (03 2014) |
| Base oil, low viscous - Mist. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Base oil, low viscous - Mist. | TWA | 5 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |

8.2. Exposure controls

Appropriate engineering controls:

Provide adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information: Wash hands before breaks and after work. Use personal protective

equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to inhandling the chemicals or the mineral oil products.

be adhered to infrancing the chemicals of the filliferal oil products.

Eye/face protection: Avoid contact with skin and eyes. Goggles/face shield are recommended. If

risk of splashing, wear safety goggles or face shield.

Skin protection

Hand Protection: Material: Nitrile butyl rubber (NBR).

Min. Breakthrough time: >= 480 min

Recommended thickness of the material: >= 0.38 mm

Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the

manufacturer of the protective gloves and has to be observed.

Other: Do not carry cleaning cloths impregnated with the product in trouser

pockets. Wear suitable protective clothing.

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Respiratory Protection: Ensure good ventilation/exhaustion at the workplace. Avoid breathing

vapour/ aerosol.

Thermal hazards: No data available.

Hygiene measures: Always observe good personal hygiene measures, such as washing after

handling the material and before eating, drinking, and/or smoking. Routinely

wash work clothing to remove contaminants. Discard contaminated

footwear that cannot be cleaned.

Environmental Controls: No data available.

PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Appearance

Physical state: liquid
Form: liquid

Outline

Death

Color: Dark brown
Odor: Characteristic

Odor Threshold: Not applicable for mixtures

pH: substance/mixture is non-soluble (in water)

Freezing point: Not applicable for mixtures

Boiling Point: Value not relevant for classification

Flash Point: > 190 °C

Evaporation Rate: Not applicable for mixtures

Flammability (solid, gas): Value not relevant for classification

Explosion Limit - Upper (%):Not applicable for mixturesExplosion Limit - Lower (%):Not applicable for mixturesVapor pressure:Not applicable for mixturesRelative vapor density:Not applicable for mixtures

Density: 0.87 g/ml (15.00 °C)

Solubility(ies)

Solubility in Water: Insoluble in water Solubility (other): No data available.

Partition coefficient (n-octanol/water): Not applicable for mixtures

Auto-ignition temperature: Value not relevant for classification

Decomposition Temperature: Value not relevant for classification

Kinematic viscosity: 121 mm2/s (40.00 °C)

Explosive properties:Value not relevant for classification **Oxidizing properties:**Value not relevant for classification

9.2 Other information No data available.

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SECTION 10: Stability and reactivity

10.1 Reactivity: Stable under normal use conditions.

10.2 Chemical Stability: Stable under normal use conditions.

10.3 Possibility of hazardous

reactions:

Stable under normal use conditions.

10.4 Conditions to avoid: Stable under normal use conditions.

10.5 Incompatible Materials: Strong oxidizing substances. Strong acids. Strong bases.

10.6 Hazardous Decomposition

Products:

Thermal decomposition or combustion may liberate carbon oxides and

other toxic gases or vapors.

11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation: No data available.

Ingestion: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Acute toxicity

Oral

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

organic Polysulphide LD 50 (Rat): 6,500 mg/kg

Base oil, low viscous LD 50 (Rat): > 5,000 mg/kg (OECD 423)

alkenyl amine, long-chain LD 50 (Rat): 1,689 mg/kg (OECD 401)

Dermal

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

Base oil, low viscous LD 50 (Rabbit): > 5,000 mg/kg (OECD 402)

Inhalation

Product:

Not classified for acute toxicity based on available data.

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Skin Corrosion/Irritation:

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

Serious Eye Damage/Eye Irritation:

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

Respiratory or Skin Sensitization:

Product: Skin sensitizer: Based on available data, the classification criteria are met.

Respiratory sensitizer: Based on available data, the classification criteria

are not met.

Specified substance(s)

organic Polysulphide , OECD 406-1sensitizing

Alkylphosphorothioate,

No sensitizing effect (guinea pig); OECD 406 Long-chain alkyl amine

Germ Cell Mutagenicity

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

Carcinogenicity

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

IARC: IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

NTP: US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

OSHASP: US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Reproductive toxicity

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

Specific Target Organ Toxicity - Single Exposure

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

Specific Target Organ Toxicity - Repeated Exposure

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

Aspiration Hazard

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

12 **ECOLOGICAL INFORMATION**

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12.1 Toxicity

Acute toxicity

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

Fish

Specified substance(s)

organic Polysulphide LC 50 (Fish, 96 h): > 0.088 mg/l

Base oil, low viscous LC 50 (Fish, 96 h): > 101 mg/l (OECD 203)

Alkylphosphorothioate, Long-chain alkyl amine LL 50 (Fish, 96 h): 0.028 mg/l

dithiophosphoric acid

derivative

LC 50 (Fish, 96 h): 8.5 mg/l

alkenyl amine, long-chain LC 50 (Fish, 96 h): 0.06 mg/l

Aquatic Invertebrates Specified substance(s)

organic Polysulphide EC 50 (Water Flea, 48 h): 0.24 mg/l (OECD 202)

Base oil, low viscous EC 50 (Water Flea, 48 h): > 10,000 mg/l (OECD 202)

Alkylphosphorothioate, Long-chain alkyl amine EL50 (Water Flea, 48 h): 0.071 mg/l

dithiophosphoric acid

derivative

EC 50 (Water Flea, 48 h): 91.4 mg/l

alkenyl amine, long-chain EC 50 (Water Flea, 48 h): 0.011 mg/l

Chronic ToxicityProduct: Based on available data, the classification criteria are met.

Aquatic Invertebrates Specified substance(s)

alkenyl amine, long-chain NOEC (Water Flea, 21 d): 0.013 mg/l

Toxicity to Aquatic Plants Specified substance(s)

organic Polysulphide LC 50 (Alga, 72 h): 0.838 mg/l (OECD 201)

EC 10 (Alga, 71 h): 0.04 mg/l

Base oil, low viscous EC 50 (Alga, 72 h): > 101 mg/l

Alkylphosphorothioate, Long-chain alkyl amine EL50 (Algae (Pseudokirchneriella subcapitata), 72 h): 0.028 mg/l

dithiophosphoric acid

derivative

NOEC (Alga, 96 h): 1.7 mg/l

alkenyl amine, long-chain EC 50 (Alga, 72 h): 0.12 mg/l

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EC 10 (Alga, 72 h): 0.029 mg/l

12.2 Persistence and Degradability

Biodegradation

Product: Not applicable for mixtures

Specified substance(s)

Alkylphosphorothioate, Long-chain alkyl amine 75 % (28 d, OECD 301B) Readily biodegradable

dithiophosphoric acid

derivative

7.4 % (28 d, OECD 301B) Not easily biodegradable

alkenyl amine, long-chain 66 % (28 d, OECD 301B)

12.3 Bioaccumulative potential

Product: Not applicable for mixtures

12.4 Mobility in soil:

Product: Not applicable for mixtures

12.5 Results of PBT and vPvB

assessment:

The product does not contain any substances fulfilling the PBT/vPvB criteria.

12.6 Other adverse effects: The classification of this product is based all or in part on test data.

13 Disposal considerations

13.1 Waste treatment methods

General information: Dispose in accordance with all applicable regulations.

Disposal methods: Do not empty into drains; dispose of this material and its container in a safe

way. When storing used products, ensure that the waste categories and

mixing instructions are observed.

14 TRANSPORT INFORMATION

DOT

Not Regulated.

TDG

Not Regulated.

IMDG - International Maritime Dangerous Goods Code

Not Regulated.

IATA

Not Regulated.

15 REGULATORY INFORMATION

US Federal Regulations

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US State Regulations

Inventory Status

| DSL | On or | in compliance with the inventory |
|------|-------|----------------------------------|
| TSCA | On or | in compliance with the inventory |

16 OTHER INFORMATION

Revision Information: Vertical lines in the margin indicate an amendment.

Wording of the H-statements in section 2 and 3

| - | |
|------|--|
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| H373 | May cause damage to organs through prolonged or repeated |
| | exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| | |

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Disclaimer: The data contained in this safety data sheet are based on our current

knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no

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