



**OKS 350 含二硫化钼的高温链条润滑油，合成**

Version 2.0      Revision Date: 2025-02-19      Date of last issue: 2022-08-26  
Date of first issue: 2013-11-25      Print Date: 2025-02-19

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : OKS 350 含二硫化钼的高温链条润滑油，合成  
Chemical nature : Synthetic hydrocarbon oil ester oil

**Manufacturer or supplier's details**

Company name of supplier : OKS Spezialschmierstoffe GmbH  
Ganghoferstr. 47  
82216 Maisach-Gernlinden  
Deutschland  
Tel.: +49 8142 3051 500  
Fax: +49 8142 3051 599  
info@oks-germany.com

E-mail address of person responsible for the SDS : mcm@oks-germany.com

National contact :

Emergency telephone number : +86 532 8388 9090 (NRCC, only for hazardous chemicals)  
+86 21 69225521

**Recommended use of the chemical and restrictions on use**

Recommended use : Lubricating oil  
Restrictions on use : Restricted to professional users.

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

<b>Appearance</b>	: liquid
<b>Colour</b>	: black
<b>Odour</b>	: characteristic
Causes mild skin irritation. May cause damage to organs (lymph node) through prolonged or repeated exposure.	


**GHS Classification**

Skin irritation : Category 3  
Specific target organ toxicity - repeated exposure : Category 2 (lymph node)

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**GHS label elements**

Hazard pictograms : 

Signal word : Warning

Hazard statements : H316 Causes mild skin irritation.  
H373 May cause damage to organs (lymph node) through prolonged or repeated exposure.

Precautionary statements : **Prevention:**  
P260 Do not breathe vapours.  
**Response:**  
P314 Get medical advice/ attention if you feel unwell.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
**Disposal:**  
P501 Dispose of contents/containers according the local government requirements.

**Physical and chemical hazards**

Not classified based on available information.

**Health hazards**

Causes mild skin irritation. May cause damage to organs through prolonged or repeated exposure.

**Environmental hazards**

Not classified based on available information.

**Other hazards which do not result in classification**

None known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

Chemical name	CAS-No.	Concentration (% w/w)
2,2-dimethyl-1,3-propanediyl dioleate	42222-50-4	>= 30 -< 50
Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates	80939-62-4	>= 1 -< 2.5



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**4. FIRST AID MEASURES**

- If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.  
Keep patient warm and at rest.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.  
Wash off immediately with soap and plenty of water.  
Get medical attention immediately if irritation develops and persists.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.  
Get medical attention immediately.
- If swallowed : Move the victim to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
Do NOT induce vomiting.  
Rinse mouth with water.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : None known.  
No symptoms known or expected.
- Notes to physician : Treat symptomatically.

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**5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NOx)



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- Specific extinguishing methods : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Do not breathe vapours or spray mist. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Try to prevent the material from entering drains or water courses. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**7. HANDLING AND STORAGE**

**Handling**

- Advice on safe handling : Do not use in areas without adequate ventilation. Do not breathe vapours or spray mist. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Wash hands and face before breaks and immediately after handling the product. Do not get in eyes or mouth or on skin. Do not get on skin or clothing. Do not ingest. Do not repack. Do not re-use empty containers. These safety instructions also apply to empty packaging which



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may still contain product residues.  
Keep container closed when not in use.

Avoidance of contact : No materials to be especially mentioned.

**Storage**

Conditions for safe storage : Store in original container.  
Keep container closed when not in use.  
Keep in a dry, cool and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Store in accordance with the particular national regulations.  
Keep in properly labelled containers.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

**Personal protective equipment**

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type A-P

Eye/face protection : Safety glasses with side-shields

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**Hand protection**

Material : butyl-rubber  
Break through time : > 10 min  
Protective index : Class 1

Remarks : Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : black

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable  
substance/mixture is non-polar/aprotic

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : 260 °C

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Self-ignition : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : < 1 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0.9010 (20 °C)  
Reference substance: Water  
The value is calculated

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Density : 0.90 g/cm<sup>3</sup> (20 °C)  
Bulk density : No data available  
Solubility(ies)  
    Water solubility : immiscible  
    Solubility in other solvents : No data available  
Partition coefficient: n-octanol/water : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Viscosity  
    Viscosity, dynamic : No data available  
    Viscosity, kinematic : 245 mm<sup>2</sup>/s ( 40 °C)  
Explosive properties : Not explosive  
Oxidizing properties : No data available  
Sublimation point : No data available

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**10. STABILITY AND REACTIVITY**

Reactivity : No hazards to be specially mentioned.  
Chemical stability : Stable under normal conditions.  
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.  
Conditions to avoid : No conditions to be specially mentioned.  
Incompatible materials : No materials to be especially mentioned.  
Hazardous decomposition products : No decomposition if stored and applied as directed.



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**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product:**

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Remarks: This information is not available.

**Components:**

**2,2-dimethyl-1,3-propanediyl dioleate:**

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 401

**Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
GLP: no  
Assessment: The substance or mixture has no acute dermal toxicity

**Skin corrosion/irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Species : Rabbit  
Assessment : Irritating to skin.  
Method : OECD Test Guideline 404



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Result : Irritating to skin.  
GLP : no

**Serious eye damage/eye irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Species : Rabbit  
Result : Irritating to eyes.  
Assessment : Irritating to eyes.  
Method : OECD Test Guideline 405  
GLP : no

**Respiratory or skin sensitisation**

**Product:**

Remarks : This information is not available.

**Components:**

**Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Test Type : Maximisation Test  
Exposure routes : Dermal  
Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.  
GLP : no

**Germ cell mutagenicity**

**Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

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**Components:**

**Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates:**

Genotoxicity in vitro : Test Type: gene mutation test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: no

**Carcinogenicity**

**Product:**

Remarks : No data available

**Reproductive toxicity**

**Product:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

**Components:**

**Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates:**

Effects on fertility : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Oral  
General Toxicity - Parent: LOAEL: 10 mg/kg body weight  
General Toxicity F1: NOAEL: 100 mg/kg body weight  
Method: OECD Test Guideline 422  
GLP: yes

Effects on foetal development : Species: Rat  
Application Route: Oral  
General Toxicity Maternal: LOAEL: 10 mg/kg body weight  
Developmental Toxicity: NOAEL: 100 mg/kg body weight  
Method: OECD Test Guideline 422  
GLP: yes

**STOT - single exposure**

**Product:**

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Remarks : No data available

**STOT - repeated exposure**

**Product:**

Remarks : No data available

**Components:**

**Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates:**

Target Organs : lymph node  
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

**Repeated dose toxicity**

**Product:**

Remarks : This information is not available.

**Components:**

**Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates:**

Species : Rat, male and female  
LOAEL : 10 mg/kg  
Application Route : Oral  
Exposure time : 28  
Method : OECD Test Guideline 422  
GLP : yes  
Remarks : Not classified due to inconclusive data.

**Aspiration toxicity**

**Product:**

This information is not available.

**Further information**

**Product:**

Remarks : Information given is based on data on the components and the toxicology of similar products.

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**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish :  
Remarks: No data available

Toxicity to daphnia and other :  
aquatic invertebrates      Remarks: No data available

Toxicity to algae/aquatic :  
plants      Remarks: No data available

Toxicity to microorganisms :      Remarks: No data available

**Components:**

**2,2-dimethyl-1,3-propanediyl dioleate:**

Toxicity to fish :      LC50 (Leuciscus idus (Golden orfe)): > 10,000 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other :      EC50 (Daphnia magna (Water flea)): > 100 mg/l  
aquatic invertebrates      Exposure time: 48 h  
Method: ISO 6341

Toxicity to algae/aquatic :      ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100  
plants      mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

**Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates:**

Toxicity to fish :      LC50 (Oncorhynchus mykiss (rainbow trout)): 5.5 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: no



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- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: no
- Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 10 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): > 10 mg/l  
Exposure time: 22 d  
Test Type: semi-static test  
Method: OECD Test Guideline 211  
GLP: yes
- Toxicity to microorganisms : EC50 (Bacteria): > 100 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209  
GLP: no

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

**Components:**

**2,2-dimethyl-1,3-propanediyl dioleate:**

Biodegradability : Biodegradation: 85 %  
Method: OECD Test Guideline 301B

**Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Biodegradability : aerobic  
Inoculum: activated sludge



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Result: Not rapidly biodegradable  
Biodegradation: 12 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
GLP: no

**Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: No data available

**Components:**

**2,2-dimethyl-1,3-propanediyl dioleate:**

Partition coefficient: n- : log Pow: > 3  
octanol/water

**Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates:**

Bioaccumulation : Bioconcentration factor (BCF): 0.85 - 278

**Mobility in soil**

**Product:**

Mobility : Remarks: No data available

Distribution among : Remarks: No data available  
environmental compartments

**Other adverse effects**

**Product:**

Additional ecological : No information on ecology is available.  
information

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**13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not dispose of with domestic refuse.  
Dispose of as hazardous waste in compliance with local and national regulations.



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Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.  
Dispose of waste product or used containers according to local regulations.

**14. TRANSPORT INFORMATION**

**International Regulations**

**UNRTDG**

UN number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable  
Labels : Not applicable

**IATA-DGR**

UN/ID No. : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable  
Labels : Not applicable  
Packing instruction (cargo aircraft) : Not applicable  
Packing instruction (passenger aircraft) : Not applicable

**IMDG-Code**

UN number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable  
Labels : Not applicable  
EmS Code : Not applicable  
Marine pollutant : Not applicable

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations**

**GB 6944/12268**

UN number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable



# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519CN



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Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

|| Relevant changes compared to the last edition are highlighted at the left margin. This version replaces all previous editions.

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