according to GB/T 16483 and GB/T 17519



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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : OKS 2501

Chemical nature : Active substance with propellant

Synthetic hydrocarbon oil

solid lubricant

Manufacturer or supplier's details

Company name of supplier : OKS Spezialschmierstoffe GmbH

Ganghoferstr. 47

D-82216 Maisach-Gernlinden Tel.: +49 8142 3051 500 Fax.: +49 8142 3051 599 info@oks-germany.com

E-mail address of person

: mcm@oks-germany.com

responsible for the SDS

Material Compliance Management

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 : Lubricant spray

Restrictions on use : Restricted to professional users.

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance : aerosol
Colour : white
Odour : solvent-like

Extremely flammable aerosol. Pressurised container: May burst if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye damage. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.

GHS Classification

Aerosols : Category 1

Skin irritation : Category 2

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Serious eye damage : Category 1

Specific target organ toxicity -

single exposure

Category 3 (Narcotic effects)

Aspiration hazard : Category 1

Short-term (acute) aquatic

hazard

Category 2

Long-term (chronic) aquatic

hazard

Category 2

GHS label elements

Hazard pictograms











Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated. H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H318 Causes serious eye damage. H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing mist.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/

doctor if you feel unwell.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON

CENTER/ doctor.

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P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/

attention

P362 + P364 Take off contaminated clothing and wash it before

reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P410 + P412 Protect from sunlight. Do not expose to

temperatures exceeding 50 °C/122 °F.

Disposal:

P501 Dispose of contents/containers according the local government requirements.

Physical and chemical hazards

Extremely flammable aerosol. Pressurised container: May burst if heated.

Health hazards

Causes skin irritation. Causes serious eye damage. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.

Environmental hazards

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

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)
Naphtha (petroleum), hydrotreated light	64742-49-0	>= 25 -< 30
Butane	106-97-8	>= 20 -< 30
propane	74-98-6	>= 10 -< 20
titanium dioxide	13463-67-7	>= 1 -< 10
calcium dihydroxide	1305-62-0	>= 3 -< 10
n-hexane	110-54-3	>= 1 -< 2.5
N,N'-ethylenedi(stearamide)	110-30-5	>= 1 -< 10
Amines, N-tallow alkyltrimethylenedi-, oleates	61791-53-5	>= 1 -< 2.5
Molybdenum, bis[O,O-bis(2-ethylhexyl)	72030-25-2	>= 0.1 -< 0.25
phosphorodithioatokappa.S,.kappa.S']dioxodi-		
.muthioxodi-, (Mo-Mo)		



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4. FIRST AID MEASURES

If inhaled : Call a physician or poison control centre immediately.

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.

Get medical attention immediately if irritation develops and

persists.

Wash clothing before reuse.

Thoroughly clean shoes before reuse. Wash off immediately with plenty of water.

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.

Call a physician immediately. Keep respiratory tract clear. Do NOT induce vomiting. Rinse mouth with water.

Give small amounts of water to drink.

Aspiration hazard if swallowed - can enter lungs and cause

damage.

Most important symptoms and effects, both acute and

delayed

Central nervous system depression

Risk of product entering the lungs on vomiting after ingestion.

Health injuries may be delayed.

corrosive effects Causes skin irritation.

May cause an allergic skin reaction.

Inhalation may provoke the following symptoms:

Unconsciousness

Dizziness Drowsiness Headache Nausea Tiredness

Skin contact may provoke the following symptoms:

Erythema

Allergic appearance

Aspiration may cause pulmonary oedema and pneumonitis.

Notes to physician : The first aid procedure should be established in consultation

with the doctor responsible for industrial medicine.

according to GB/T 16483 and GB/T 17519



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Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : ABC powder

Unsuitable extinguishing

media

High volume water jet

Specific hazards during

firefighting

Fire Hazard

Do not let product enter drains.

Contains gas under pressure; may explode if heated. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Hazardous combustion

products

: Carbon oxides

Nitrogen oxides (NOx) Oxides of phosphorus

Metal oxides

Specific extinguishing

methods

Standard procedure for chemical fires.

Collect contaminated fire extinguishing water separately. This

must not be discharged into drains. Cool containers/tanks with water spray.

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.

Ensure adequate ventilation.

Remove all sources of ignition.

Do not breathe vapours or spray mist.

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

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).

Keep in suitable, closed containers for disposal.



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Non-sparking tools should be used.

Prevention of secondary

hazards

Only qualified personnel equipped with suitable protective

equipment may intervene.

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.

Keep away from fire, sparks and heated surfaces. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is

being used.

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 use sparking tools.

These safety instructions also apply to empty packaging which

may still contain product residues.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or

burn, even after use.

Avoidance of contact : Oxidizing agents

Storage

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun

exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or

red-hot objects.

Store in accordance with the particular national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components		CAS-No.	Value type	Control	Basis	l
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	T		
	exposure)	Permissible	
		concentration	
106-97-8	STEL	1,000 ppm	ACGIH
			(2018-03-20)
13463-67-7	PC-TWA	8 mg/m3	CN OEL
	(Total dust)		(2019-08-27)
Further inform	ation: G2B - Pos	sibly carcinogenic to	humans
	TWA	10 mg/m3	ACGIH
		(Titanium dioxide)	(2021-01-01)
1305-62-0	TWA	5 mg/m3	ACGIH
			(2013-03-01)
110-54-3	PC-TWA	100 mg/m3	CN OEL
			(2019-08-27)
Further inform	ation: Skin		
	PC-STEL	180 mg/m3	CN OEL
			(2019-08-27)
Further information: Skin			
	TWA	50 ppm	ACGIH
			(2007-01-01)
110-30-5	TWA	10 mg/m3	ACGIH
	(Inhalable		(2018-03-20)
	particulate		, ,
	matter)		
	TWA	3 mg/m3	ACGIH
	(Respirable		(2018-03-20)
	particulate		
	matter)		
	13463-67-7 Further inform 1305-62-0 110-54-3 Further inform Further inform	13463-67-7 PC-TWA (Total dust) Further information: G2B - Pos TWA 1305-62-0 TWA 110-54-3 PC-TWA Further information: Skin PC-STEL Further information: Skin TWA 110-30-5 TWA (Inhalable particulate matter) TWA (Respirable particulate	exposure) Permissible concentration 106-97-8 STEL 1,000 ppm 13463-67-7 PC-TWA (Total dust) Further information: G2B - Possibly carcinogenic to TWA 10 mg/m3 (Titanium dioxide) 1305-62-0 TWA 5 mg/m3 110-54-3 PC-TWA 100 mg/m3 Further information: Skin PC-STEL 180 mg/m3 Further information: Skin TWA 50 ppm 110-30-5 TWA (Inhalable particulate matter) TWA (Respirable particulate particulate particulate particulate particulate particulate particulate

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio n	Basis
n-hexane	110-54-3	2,5- hexanedion e	Urine	After shift	4 mg/l	CN BEI (2019-08- 27)
		2,5- hexanedion e	Urine	After shift	35 micromol per litre	CN BEI (2019-08- 27)
		2,5- Hexanedion e	Urine	End of shift	0.5 mg/l	ACGIH BEI (2020-02- 01)

Engineering measures : Use only in an area equipped with explosion proof exhaust

ventilation.

Handle only in a place equipped with local exhaust (or other

appropriate exhaust).

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust



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ventilation is provided or exposure assessment demonstrates

that exposures are within recommended exposure guidelines.

Short term only

Filter type A-P Filter type

Eye/face protection Tightly fitting safety goggles

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.

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

handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance aerosol

Colour white

Odour solvent-like

Odour Threshold No data available

Not applicable pΗ

substance/mixture is non-soluble (in water)

Melting point/range No data available

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Boiling point/boiling range : -20 °C

(1,013 hPa)

Flash point : -20 °C

Method: Abel-Pensky, closed cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Self-ignition : not auto-flammable

Upper explosion limit / Upper

flammability limit

15 %(V)

Lower explosion limit / Lower

flammability limit

0.6 %(V)

Vapour pressure : 2,860 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0.775 (20 °C)

Reference substance: Water The value is calculated

Density : 0.78 g/cm3 (20 °C)

Bulk density : No data available

Solubility(ies)

Water solubility : insoluble

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 : < 20.5 mm2/s (40 °C)

Explosive properties : Not explosive

Oxidizing properties : No data available

according to GB/T 16483 and GB/T 17519



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Sublimation point : No data available

Metal corrosion rate : Not corrosive to metals

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 : Heat, flames and sparks.

Strong sunlight for prolonged periods.

Risk of receptacle bursting.

Incompatible materials : Oxidizing agents

Hazardous decomposition

products

No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Remarks: Effects due to ingestion may include:

Symptoms: Pain, Central nervous system depression,

Stomach/intestinal disorders

Acute inhalation toxicity : Acute toxicity estimate: > 10 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Remarks: Risk of delayed pulmonary oedema.

Effects of breathing high concentrations of vapour may

include:

Respiration of solvent vapour may cause dizziness.

Harmful by inhalation.

Irritating to respiratory system.



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Symptoms: Inhalation may provoke the following symptoms:, Respiratory disorder, Dizziness, Drowsiness, Vomiting, Fatigue, Vertigo, Central nervous system depression

Acute dermal toxicity : Symptoms: Blistering, Redness, Local irritation

Components:

Naphtha (petroleum), hydrotreated light:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Method: OECD Test Guideline 401

GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 25.2 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Assessment: The substance or mixture has no acute

inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Assessment: The substance or mixture has no acute dermal

toxicity

Butane:

Acute inhalation toxicity : LC50 (Rat): 658 mg/l

Exposure time: 4 h
Test atmosphere: gas

titanium dioxide:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Method: OECD Test Guideline 401

GLP: yes

Acute inhalation toxicity : (Rat): > 5.09 mg/l

Method: OECD Test Guideline 403

GLP: no

calcium dihydroxide:

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg

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Method: OECD Test Guideline 425

GLP: yes

Assessment: The substance or mixture has no acute oral

toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): > 6.04 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 436

GLP: yes

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,500 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

n-hexane:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 259.35 mg/l

Exposure time: 4 h Test atmosphere: vapour

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 3,350 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

N,N'-ethylenedi(stearamide):

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 122 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 20,000 mg/kg

Method: OECD Test Guideline 402

Amines, N-tallow alkyltrimethylenedi-, oleates:



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Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Molybdenum, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-.kappa.S,.kappa.S']dioxodi-.mu.-thioxodi-, (Mo-Mo):

Acute dermal toxicity : Symptoms: Redness, Local irritation

Skin corrosion/irritation

Product:

Remarks : Causes skin burns.

Irritating to skin.

Components:

Naphtha (petroleum), hydrotreated light:

Species : Rabbit

Assessment : Irritating to skin.

Method : OECD Test Guideline 404

Result : Irritating to skin.

GLP : yes

titanium dioxide:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : No skin irritation

GLP : no

calcium dihydroxide:

Species : human skin
Assessment : Irritating to skin.

Method : OECD Test Guideline 431

Result : Irritating to skin.

GLP : yes

Species : Rabbit

Assessment : Irritating to skin.

according to GB/T 16483 and GB/T 17519



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Method : OECD Test Guideline 404

Result : Irritating to skin.

GLP : yes

n-hexane:

Species : Rabbit

Assessment : Irritating to skin.

Method : OECD Test Guideline 404

Result : Irritating to skin.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Species : Rabbit

Assessment : Irritating to skin. Result : Irritating to skin.

Molybdenum, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-.kappa.S,.kappa.S']dioxodi-

.mu.-thioxodi-, (Mo-Mo):

Assessment : Irritating to skin. Result : Irritating to skin.

Remarks : Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks : Causes eye burns.

Components:

Naphtha (petroleum), hydrotreated light:

Species : Rabbit

Result : No eye irritation
Assessment : No eye irritation

Method : OECD Test Guideline 405

GLP : yes

titanium dioxide:

Species : Rabbit

Result : No eye irritation
Assessment : No eye irritation

Method : OECD Test Guideline 405



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calcium dihydroxide:

Species Rabbit

Result Risk of serious damage to eyes. Assessment Risk of serious damage to eyes. **OECD Test Guideline 405** Method

GLP yes

n-hexane:

Species Rabbit

Result No eye irritation Assessment No eye irritation

Method **OECD Test Guideline 405**

Amines, N-tallow alkyltrimethylenedi-, oleates:

Species Rabbit

Result Irritating to eyes. Assessment Irritating to eyes.

Method **OECD Test Guideline 405**

Molybdenum, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-.kappa.S,.kappa.S']dioxodi-

.mu.-thioxodi-, (Mo-Mo):

Result No eye irritation Assessment No eye irritation

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

Naphtha (petroleum), hydrotreated light:

Test Type **Buehler Test Species** Guinea pig

Does not cause skin sensitisation. Assessment Method **OECD Test Guideline 406** Result Does not cause skin sensitisation.

GLP yes

according to GB/T 16483 and GB/T 17519



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titanium dioxide:

Species : Mouse

Assessment : Does not cause skin sensitisation.

Method : OECD Test Guideline 429

Result : Does not cause skin sensitisation.

calcium dihydroxide:

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Assessment : Does not cause skin sensitisation.

Method : OECD Test Guideline 429

Result : Does not cause skin sensitisation.

GLP : yes

n-hexane:

Species : Mouse

Assessment : Does not cause skin sensitisation.
Result : Does not cause skin sensitisation.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Assessment : Does not cause skin sensitisation. Result : Does not cause skin sensitisation.

Molybdenum, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-.kappa.S,.kappa.S']dioxodi-

.mu.-thioxodi-, (Mo-Mo):

Assessment : The product is a skin sensitiser, sub-category 1B. Result : The product is a skin sensitiser, sub-category 1B.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Components:

titanium dioxide:

Germ cell mutagenicity -

Assessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.



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calcium dihydroxide:

Genotoxicity in vitro : Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative GLP: yes

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

GLP: yes

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

GLP: yes

Amines, N-tallow alkyltrimethylenedi-, oleates:

Genotoxicity in vitro : Test Type: Ames test

Result: negative

Germ cell mutagenicity -

Assessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

Carcinogenicity

Product:

Remarks : No data available

Components:

titanium dioxide:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

calcium dihydroxide:

Carcinogenicity - Assessment

: No evidence of carcinogenicity in animal studies.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Carcinogenicity - : No evidence of carcinogenicity in animal studies.

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Assessment

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development

: Remarks: No data available

Components:

titanium dioxide:

Reproductive toxicity - : - Fertility -

Assessment No toxicity to reproduction

- Teratogenicity -

No effects on or via lactation

calcium dihydroxide:

Reproductive toxicity - : - Fertility -

Assessment No toxicity to reproduction

- Teratogenicity -

No effects on or via lactation

n-hexane:

Reproductive toxicity - : - Fertility -

Assessment Suspected human reproductive toxicant

Amines, N-tallow alkyltrimethylenedi-, oleates:

Reproductive toxicity - : - Fertility -

Assessment No toxicity to reproduction

- Teratogenicity -

No toxicity to reproduction

STOT - single exposure

Components:

Naphtha (petroleum), hydrotreated light:

according to GB/T 16483 and GB/T 17519



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Exposure routes : Inhalation

Target Organs : Central nervous system

Assessment : May cause drowsiness or dizziness.

titanium dioxide:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

calcium dihydroxide:

Assessment : May cause respiratory irritation.

n-hexane:

Exposure routes : Inhalation

Target Organs : Central nervous system

Assessment : The substance or mixture is classified as specific target organ

toxicant, single exposure, category 3 with narcotic effects.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

STOT - repeated exposure

Components:

titanium dioxide:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

n-hexane:

Exposure routes : Inhalation

Target Organs : Central nervous system

Assessment : The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 2.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Exposure routes : Ingestion

Assessment : May cause damage to organs through prolonged or repeated

exposure.

according to GB/T 16483 and GB/T 17519



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Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

Product:

May be fatal if swallowed and enters airways.

May be fatal if swallowed and enters airways.

Components:

Naphtha (petroleum), hydrotreated light:

May be fatal if swallowed and enters airways.

titanium dioxide:

No aspiration toxicity classification

n-hexane:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks : Risks of irreversible effects after a single exposure.

Ingestion causes irritation of upper respiratory system and

gastrointestinal disturbance.

Ingestion causes burns of the upper digestive and respiratory

tracts.

Components:

Molybdenum, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-.kappa.S,.kappa.S']dioxodi.mu.-thioxodi-, (Mo-Mo):

Remarks : Ingestion causes irritation of upper respiratory system and

gastrointestinal disturbance.



according to GB/T 16483 and GB/T 17519



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12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish

Remarks: Toxic to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.

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:

Naphtha (petroleum), hydrotreated light:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 10 mg/l

Exposure time: 96 h Test Type: semi-static test

Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 4.5 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 3.1

mg/l

Exposure time: 72 h Test Type: static test

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

according to GB/T 16483 and GB/T 17519



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titanium dioxide:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 96 h Test Type: static test

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

calcium dihydroxide:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 50.6 mg/l

Exposure time: 96 h Test Type: static test

Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 49.1 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 184.57

mq/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

n-hexane:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 12.51 mg/l

Exposure time: 96 h

according to GB/T 16483 and GB/T 17519



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Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 21.85 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): 9.285

mg/l

Exposure time: 72 h

N,N'-ethylenedi(stearamide):

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 10,000 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.053

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: No toxicity at the limit of solubility

Amines, N-tallow alkyltrimethylenedi-, oleates:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 0.1 - 1 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 0.1 - 1 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): > 0.01

- 0.1 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

M-Factor (Acute aquatic

toxicity)

10

Toxicity to daphnia and other :

aquatic invertebrates (Chronic toxicity)

EC50 (Daphnia magna (Water flea)): 1.41 mg/l

Exposure time: 21 d Test Type: semi-static test



according to GB/T 16483 and GB/T 17519



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Method: OECD Test Guideline 211

M-Factor (Chronic aquatic

toxicity)

1

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Molybdenum, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-.kappa.S,.kappa.S']dioxodi-.mu.-thioxodi-, (Mo-Mo):

Toxicity to fish

LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 96 h
Test Type: semi-static test

Method: OECD Test Guideline 203

GLP: yes

Remarks: May cause long-term adverse effects in the aquatic

environment.

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical

removability

: Remarks: No data available



according to GB/T 16483 and GB/T 17519



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Components:

Naphtha (petroleum), hydrotreated light:

Biodegradability : aerobic

Inoculum: activated sludge Result: rapidly biodegradable Biodegradation: 90.35 % Exposure time: 28 d

calcium dihydroxide:

Biodegradability : Remarks: The methods for determining the biological

degradability are not applicable to inorganic substances.

n-hexane:

Biodegradability : aerobic

Inoculum: activated sludge Result: rapidly biodegradable

Biodegradation: 21 % Exposure time: 28 d

GLP: yes

N,N'-ethylenedi(stearamide):

Biodegradability : Result: Not readily biodegradable.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Biodegradability : aerobic

Inoculum: activated sludge Result: rapidly biodegradable Biodegradation: 65 %

Exposure time: 28 d

Method: OECD Test Guideline 301D

GLP: yes

Molybdenum, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-.kappa.S,.kappa.S']dioxodi-.mu.-thioxodi-, (Mo-Mo):

Biodegradability : Result: Not rapidly biodegradable

Biodegradation: 11 % Exposure time: 28 d

Method: OECD Test Guideline 301B

according to GB/T 16483 and GB/T 17519



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Bioaccumulative potential

Product:

Bioaccumulation Remarks: This mixture contains no substance considered to

be persistent, bioaccumulating and toxic (PBT).

This mixture contains no substance considered to be very

persistent and very bioaccumulating (vPvB).

Components:

Naphtha (petroleum), hydrotreated light:

Partition coefficient: n-

: log Pow: 3.4 - 5.2

octanol/water

Butane:

Partition coefficient: n-

log Pow: 2.89

octanol/water

Method: OECD Test Guideline 107

propane:

Partition coefficient: n-

log Pow: 2.36

octanol/water

n-hexane:

Bioaccumulation Bioconcentration factor (BCF): 501.19

Partition coefficient: n-

log Pow: 4 (20 °C)

octanol/water

pH: 7

N,N'-ethylenedi(stearamide):

Bioaccumulation Remarks: Bioaccumulation is unlikely.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Molybdenum, bis[0,0-bis(2-ethylhexyl) phosphorodithioato-.kappa.S,.kappa.S']dioxodi-

.mu.-thioxodi-, (Mo-Mo):

Partition coefficient: n-

: log Pow: > 4

octanol/water



according to GB/T 16483 and GB/T 17519



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Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among

environmental compartments

Remarks: No data available

Other adverse effects

Product:

Additional ecological

information

: Toxic to aquatic life with long lasting effects.

Components:

titanium dioxide:

Results of PBT and vPvB

assessment

Non-classified vPvB substance Non-classified PBT substance

Molybdenum, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-.kappa.S,.kappa.S']dioxodi-.mu.-thioxodi-, (Mo-Mo):

Additional ecological

in formation

May cause long lasting harmful effects to aquatic life.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of with domestic refuse.

Dispose of as hazardous waste in compliance with local and

national regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as

the unused product.

Offer empty spray cans to an established disposal company. Pressurized container: Do not pierce or burn, even after use.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 1950
Proper shipping name : AEROSOLS

Class : 2.1

according to GB/T 16483 and GB/T 17519



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Packing group : Not assigned by regulation

Labels : 2.1

IATA-DGR

UN/ID No. : UN 1950

Proper shipping name : Aerosols, flammable

Class : 2.

Packing group : Not assigned by regulation

203

Labels : Flammable Gas

Packing instruction (cargo

aircraft)

Packing instruction : 203

(passenger aircraft)

IMDG-Code

UN number : UN 1950
Proper shipping name : AEROSOLS

(naphtha (petroleum), hydrotreated light, fatty amine

derivative)

Class : 2.1

Packing group : Not assigned by regulation

Labels : 2.1
EmS Code : F-D, S-U
Marine pollutant : yes

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 : UN 1950
Proper shipping name : AEROSOLS

Class : 2.1

Packing group : Not assigned by regulation

Labels : 2.1

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals



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



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Product name	Status	Reference number
OKS 2501	Listed	2828

List of ingredients	CAS-No.	Status	Reference number
Butane	106-97-8	Listed	2778
propane	74-98-6	Listed	139
n-hexane	110-54-3	Listed	2789
2-Propenoic acid, 2-methyl-, butyl ester	97-88-1	Listed	1110
Methyl methacrylate	80-62-6	Listed	1105

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)

Category Threshold quantity

Aerosols 150 t

Hazardous Chemicals for Priority Management under : Not applicable

SAWS

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals : Not applicable

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import : Not applicable

and Export

International Regulations

Montreal Protocol : Not applicable

Rotterdam Convention (Prior Informed Consent) : Not applicable

Stockholm Convention (Persistent Organic Pollutants) : Not applicable

The components of this product are reported in the following inventories:

IECSC : On the inventory, or in compliance with the inventory

according to GB/T 16483 and GB/T 17519



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16. OTHER INFORMATION

Date format : yyyy/mm/dd

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
CN BEI : China. Biological Occupational Exposure Indices

CN OEL : Occupational exposure limits for hazardous agents in the

workplace - Chemical hazardous agents.

ACGIH / TWA : 8-hour, time-weighted average ACGIH / STEL : Short-term exposure limit

CN OEL / PC-TWA : Permissible concentration - time weighted average CN OEL / PC-STEL : Permissible concentration - short term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for 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

Disclaimer



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



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