

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - PT



OKS 270

Version	Revision Date:	Date of last issue: 01.07.2016	Print Date:
2.0	10.10.2018	Date of first issue: 01.07.2016	10.10.2018

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

1.1 Product identifier

Product name : OKS 270

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

Use of the Sub-stance/Mixture : Lubricant

Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Company : OKS Spezialschmierstoffe GmbH
Ganghoferstr. 47
D-82216 Maisach-Gernlinden
Tel.: +49 8142 3051 500
Fax.: +49 8142 3051 599

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

1.4 Emergency telephone number

Emergency telephone number : (+351) 808 250 143

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute aquatic toxicity, Category 1

H400: Very toxic to aquatic life.

Chronic aquatic toxicity, Category 2

H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

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Hazard statements : H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
Response:
P391 Collect spillage.

Additional Labelling

EUH208 Contains Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mineral oil.
PTFE
solid lubricant
lithium soap

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration limits M-Factor Notes	Concentration (% w/w)
distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7 265-157-1 649-467-00-8	Asp. Tox.1; H304	Note L, Note H	≥ 10 - < 20
Amines, N-tallow al- kyltrimethylenedi-, oleates	61791-53-5 263-186-4	Skin Irrit.2; H315 Eye Irrit.2; H319 STOT RE2; H373 Aquatic Acute1; H400 Aquatic Chronic1; H410	M-Factor: 10/1	$\geq 2,5$ - < 10
zinc oxide	1314-13-2 215-222-5 030-013-00-7 01-2119463881-32-	Aquatic Acute1; H400 Aquatic Chronic1; H410	M-Factor: 1/1	≥ 1 - $< 2,5$

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	XXXX			
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts	Not Assigned 939-603-7 01-2119978241-36-XXXX	Skin Sens.1B; H317	> 10 - 100 % Skin Sens.1B, H317	>= 0,1 - < 1
Substances with a workplace exposure limit :				
distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7 265-157-1 649-467-00-8 01-2119484627-25-XXXX		Note L	>= 30 - < 50
calcium distearate	1592-23-0 216-472-8			>= 1 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of 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.
If eye irritation persists, consult a specialist.

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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 without medical advice.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Fire may cause evolution of:
Carbon oxides
Halogenated compounds
Metal oxides
Nitrogen oxides (NO_x)
Oxides of phosphorus

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Exposure to decomposition products may be a hazard to health.

Further information : Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
Avoid breathing dust.
Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Clean up promptly by sweeping or vacuum.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : 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.
These safety instructions also apply to empty packaging which may still contain product residues.
Keep container closed when not in use.

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

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : 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

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national regulations. Keep in properly labelled containers.

7.3 Specific end use(s)

Specific use(s) : Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	VLE-MP (Inhalable fraction)	5 mg/m ³	PT OEL (2014-11-14)
Further information	Substances that are not classified as carcinogenic for humans., irritation of the upper respiratory tract			
distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	VLE-MP (Inhalable fraction)	5 mg/m ³	PT OEL (2014-11-14)
Further information	Substances that are not classified as carcinogenic for humans., irritation of the upper respiratory tract			
zinc oxide	1314-13-2	VLE-MP (Respirable fraction)	2 mg/m ³	PT OEL (2007-03-26)
Further information	metal fume fever			
		VLE_CD (Respirable fraction)	10 mg/m ³	PT OEL (2007-03-26)
Further information	metal fume fever			
calcium distearate	1592-23-0	VLE-MP	10 mg/m ³	PT OEL (2007-03-26)
Further information	Not including stearates from toxic metals, Substances that are not classified as carcinogenic for humans., irritation of the upper respiratory tract, Eye irritation, Skin irritation			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
distillates (petroleum), hydrotreated heavy paraffinic	Workers	Inhalation	Long-term local effects	5,6 mg/m ³
Amines, N-tallow alkyltrimethylenedi-, oleates	Workers	Skin contact	Long-term systemic effects	0,04 mg/kg
	Workers	Inhalation	Long-term systemic	0,29 mg/m ³

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			effects	
zinc oxide	Workers	Inhalation	Long-term systemic effects	5 mg/m ³
	Workers	Inhalation	Long-term local effects	0,5 mg/m ³
	Workers	Skin contact	Long-term systemic effects	83 mg/kg bw/day
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts	Workers	Inhalation	Long-term systemic effects	35,26 mg/m ³
	Workers	Inhalation	Long-term local effects	
Remarks:	No hazard identified			
	Workers	Inhalation	Acute systemic effects	
Remarks:	No hazard identified			
	Workers	Inhalation	Acute local effects	
Remarks:	No hazard identified			
	Workers	Dermal	Long-term systemic effects	25 mg/kg
	Workers	Dermal	Long-term local effects	
Remarks:	No hazard identified			
	Workers	Dermal	Acute systemic effects	
Remarks:	No hazard identified			
	Workers	Dermal	Acute local effects	
Remarks:	No hazard identified			

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
distillates (petroleum), hydro-treated heavy paraffinic	Oral	9,33 mg/kg
Amines, N-tallow alkyltrimethylenedi-, oleates	Fresh water	0,00638 mg/l
	Marine water	0,000638 mg/l
	Intermittent use/release	0,00509 mg/l
	Microbiological Activity in Sewage Treatment Systems	98,6 mg/l
	Fresh water sediment	204 mg/kg
	Marine sediment	20,4 mg/kg
	Soil	9,93 mg/kg
zinc oxide	Fresh water	0,0206 mg/l
	Marine water	0,0061 mg/l
	Microbiological Activity in Sewage Treatment Systems	0,100 mg/l
	Fresh water sediment	117,8 mg/kg
	Marine sediment	56,5 mg/kg

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	Soil	35,6 mg/kg
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts	Fresh water	0,1 mg/l
	Marine water	0,1 mg/l
	Fresh water sediment	45211 mg/kg
	Marine sediment	45211 mg/kg
	Microbiological Activity in Sewage Treatment Systems	1000 mg/l
	Air	
Remarks:	No data available	
	Soil	36739 mg/kg

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Tightly fitting safety goggles

Hand protection

Material : Fluorinated rubber

Protective index : Class 1

Remarks : Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. 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.

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

Filter type : Filter type A-P

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : paste

Colour : beige

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Odour : hydrocarbon-like

Odour Threshold : No data available

pH : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : 213 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : < 1.100 hPa (20 °C)

Relative vapour density : No data available

Density : 1,15 g/cm³
(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 : No data available

Explosive properties : Not explosive

Oxidizing properties : No data available

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9.2 Other information

Sublimation point : No data available
Self-ignition : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No conditions to be specially mentioned.

10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

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

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

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

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): Exposure time: 4 h
Test atmosphere: dust/mist

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Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg

Amines, N-tallow alkyltrimethylenedi-, oleates:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

zinc oxide:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 5,7 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 1,9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

distillates (petroleum), hydrotreated heavy paraffinic:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 5,53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Method: OECD Test Guideline 402

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Skin corrosion/irritation

Product:

Remarks: This information is not available.

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Species: Rabbit
Assessment: Irritating to skin.
Result: Irritating to skin.

zinc oxide:

Species: Rabbit
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts:

Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation

distillates (petroleum), hydrotreated heavy paraffinic:

Species: Rabbit
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

Serious eye damage/eye irritation

Product:

Remarks: This information is not available.

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Species: Rabbit
Assessment: Irritating to eyes.
Method: OECD Test Guideline 405
Result: Irritating to eyes.

zinc oxide:

Species: Rabbit
Assessment: No eye irritation
Method: OECD Test Guideline 405
Result: No eye irritation

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GLP: yes

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts:

Assessment: No eye irritation
Method: OECD Test Guideline 405
Result: No skin irritation

distillates (petroleum), hydrotreated heavy paraffinic:

Species: Rabbit
Assessment: No eye irritation
Method: OECD Test Guideline 405
Result: No eye irritation
GLP: yes

Respiratory or skin sensitisation

Product:

Remarks: This information is not available.

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

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

zinc oxide:

Test Type: Maximisation Test
Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts:

Assessment: Probability or evidence of low to moderate skin sensitisation rate in humans
Result: Probability or evidence of low to moderate skin sensitisation rate in humans

distillates (petroleum), hydrotreated heavy paraffinic:

Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.
GLP: yes

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

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Genotoxicity in vivo : Remarks: No data available

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Germ cell mutagenicity- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

zinc oxide:

Germ cell mutagenicity- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Carcinogenicity

Product:

Remarks: No data available

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Amines, N-tallow alkyltrimethylenedi-, oleates:

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

zinc oxide:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

distillates (petroleum), hydrotreated heavy paraffinic:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

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Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Reproductive toxicity - Assessment : No toxicity to reproduction
No toxicity to reproduction

zinc oxide:

Reproductive toxicity - Assessment : No toxicity to reproduction
No toxicity to reproduction

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts:

Reproductive toxicity - Assessment : No toxicity to reproduction
No toxicity to reproduction

distillates (petroleum), hydrotreated heavy paraffinic:

Reproductive toxicity - Assessment : No toxicity to reproduction

STOT - single exposure

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

zinc oxide:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Exposure routes: Ingestion

Assessment: May cause damage to organs through prolonged or repeated exposure.

zinc oxide:

Assessment: The substance or mixture is not classified as specific target organ toxicant, re-

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peated exposure.

Repeated dose toxicity

Product:

Remarks: This information is not available.

Aspiration toxicity

Product:

This information is not available.

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

May be fatal if swallowed and enters airways.

May be harmful if swallowed and enters airways.

zinc oxide:

No aspiration toxicity classification

distillates (petroleum), hydrotreated heavy paraffinic:

No aspiration toxicity classification

Further information

Product:

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

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

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

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: Very toxic to aquatic organisms.

Toxicity to daphnia and other : Remarks: No data available

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aquatic invertebrates

Toxicity to algae : Remarks: No data available

Toxicity to microorganisms :
Remarks: No data available

Components:

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 : EC50 (Daphnia magna (Water flea)): > 0,1 - 1 mg/l
aquatic invertebrates Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 0,01
- 0,1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox- : 10
icity)

Toxicity to daphnia and other : EC10: > 0,1 - 1 mg/l
aquatic invertebrates (Chron- Exposure time: 21 d
ic toxicity) Species: Daphnia magna (Water flea)
Test Type: Reproduction Test
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic : 1
toxicity)

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

zinc oxide:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 1,55 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 1 mg/l
aquatic invertebrates Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0,136
mg/l

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Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : EC50 (activated sludge): > 1.000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
GLP:

Toxicity to fish (Chronic toxicity) : NOEC: >= 0,054 mg/l
Exposure time: 32 d
Species: Danio rerio (zebra fish)
Test Type: flow-through test
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : 0,04 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : NOELR (Desmodesmus subspicatus (green algae)): 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EL50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (activated sludge): > 10.000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

distillates (petroleum), hydrotreated heavy paraffinic:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l

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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)): > 10.000 mg/l
Exposure time: 48 h
Test Type: Immobilization
Method: OECD Test Guideline 202
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 10 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Method: OECD Test Guideline 211
GLP: yes

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Biodegradability : Result: rapidly biodegradable

zinc oxide:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 8 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

distillates (petroleum), hydrotreated heavy paraffinic:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 3 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

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12.3 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:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts:

Bioaccumulation : Bioconcentration factor (BCF): 70,8

Partition coefficient: n-octanol/water : log Pow: 26,22 (20 °C)

distillates (petroleum), hydrotreated heavy paraffinic:

Partition coefficient: n-octanol/water : log Pow: > 2

calcium distearate:

Partition coefficient: n-octanol/water : log Pow: 0,8
Method: OECD Test Guideline 107

12.4 Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Assessment : Non-classified PBT substance. Non-classified vPvB sub-

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stance.

zinc oxide:

Assessment : Remarks: Not applicable

distillates (petroleum), hydrotreated heavy paraffinic:

Assessment : Non-classified vPvB substance. Non-classified PBT substance.

12.6 Other adverse effects

Product:

Additional ecological information : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : 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.

Waste codes should be assigned by the user based on the application for which the product was used.

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.

The following Waste Codes are only suggestions:

SECTION 14: Transport information

14.1 UN number

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

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IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA (Cargo) : Not regulated as a dangerous good
IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA (Passenger) : Not regulated as a dangerous good
IATA (Cargo) : Not regulated as a dangerous good

14.6 Special precautions for user

No special precautions required.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

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Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1	ENVIRONMENTAL HAZARDS	Quantity 1 100 t	Quantity 2 200 t
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E1

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Remarks: Not applicable

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H319 : Causes serious eye irritation.
H373 : May cause damage to organs through prolonged or repeated exposure if swallowed.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Note H : The classification and labelling shown for this substance applies to the hazardous property(ies) indicated by the hazard statement(s) in combination with the hazard class(es) and category(ies) shown. The requirements of Article 4 for manufacturers, importers or downstream users of this substance apply to all other hazard classes and categories. For hazard classes where the route of exposure or the nature of the ef-

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fects leads to a differentiation of the classification of the hazard class, the manufacturer, importer or downstream user is required to consider the routes of exposure or the nature of the effects not already considered. The final label shall follow the requirements of Article 17 and of section 1.2 of Annex I.

Note L : The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method", Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Classification procedure:

Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 2	H411	Calculation method

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