## OKS 671

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|---|---|---|---|
| 4.0 | 11.11.2026 | Date of first issue: 10.07.2016 | 11.11.2026 |

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

### 1.1 Product identifier

Product name : OKS 671

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

Use of the Substance/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
82216 Maisach
Germany
Tel.: +49 8142 3051-500
info@oks-germany.com

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

National contact : Klüber Lubrication France S.A.S.
Z.I. des Auréats, 10 à 16 Allée Ducretet
26014 Valence Cedex
France
Tel: +33 4 75 44 84 26
Fax: +33 4 75 44 93 36
KLF.contact@klueber.com

### 1.4 Emergency telephone number

Emergency telephone number : +33 1 45 42 59 59 ORFILA

+33 1 72 11 00 03 NCEC

+49 8142 3051 517

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

Aerosols, Category 1 — H222: Extremely flammable aerosol.
H229: Pressurised container: May burst if heated.

| | |
|---|---|
| Aspiration hazard, Category 1 | H304: May be fatal if swallowed and enters airways. |

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

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. |

Supplemental Hazard Statements : EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements :

**Prevention:**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |

**Response:**

| | |
|---|---|
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER/ doctor. |
| P331 | Do NOT induce vomiting. |

**Storage:**

| | |
|---|---|
| P410 + P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. |

**Hazardous components which must be listed on the label:**

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

### 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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Propellant
Mineral oil.
lithium soap
solid lubricant

**Components**

| Chemical name | CAS-No.<br>EC-No.<br><br>Index-No.<br>Registration number | Classification | specific concentration limit<br>M-Factor<br>Notes<br>Acute toxicity estimate | Concentration (% w/w) |
|---|---|---|---|---|
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | 918-481-9<br><br>01-2119457273-39-XXXX | Asp. Tox. 1; H304<br>EUH066 | Note P | >= 30 - < 50 |
| propane | 74-98-6<br>200-827-9<br><br>601-003-00-5<br>01-2119486944-21-XXXX | Flam. Gas 1; H220<br>Press. Gas Compr. Gas; H280 | Note U (Table 3) | >= 1 - < 10 |
| isobutane | 75-28-5<br>200-857-2<br><br>601-004-00-0<br>01-2119485395-27-XXXX | Flam. Gas 1A; H220<br>Press. Gas Compr. Gas; H280 | Note U (Table 3), Note C | >= 1 - < 10 |
| Sulfonic acids, petroleum, calcium salts | 61789-86-4<br>263-093-9<br><br>01-2119488992-18-XXXX | Skin Sens. 1B; H317 | >= 10 %<br>Skin Sens.1B, | >= 0,1 - < 1 |

| | | | | |
|---|---|---|---|---|
| | | | | |
| Substances with a workplace exposure limit : | | | | |
| butane | 106-97-8<br>203-448-7<br><br>601-004-00-0<br>01-2119474691-32-XXXX | Flam. Gas 1; H220<br>Press. Gas Compr. Gas; H280 | Note U (Table 3), Note C, Note S | >= 30 - < 50 |

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.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
Wash skin thoroughly with soap and water or use recognized skin cleanser.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
Seek medical advice.

If swallowed : Move the victim to fresh air.
Keep respiratory tract clear.
Do NOT induce vomiting.
Obtain medical attention.
Rinse mouth with water.
Aspiration hazard if swallowed - can enter lungs and cause damage.

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

Symptoms : Inhalation may provoke the following symptoms:
Unconsciousness

Dizziness
Drowsiness
Headache
Nausea
Tiredness
Skin contact may provoke the following symptoms:
Erythema

Aspiration may cause pulmonary oedema and pneumonitis.

Risks : May be fatal if swallowed and enters airways.
Repeated exposure may cause skin dryness or cracking.

Can be absorbed through skin.
Risk of product entering the lungs on vomiting after ingestion.
Health injuries may be delayed.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : ABC powder

Unsuitable extinguishing media : High volume water jet

### 5.2 Special hazards arising from the substance or mixture

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

### 5.3 Advice for firefighters

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.

Further information : Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Cool containers/tanks with water spray.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.
Ensure adequate ventilation.
Remove all sources of ignition.
Do not breathe vapours or spray mist.
Refer to protective measures listed in sections 7 and 8.
Only qualified personnel equipped with suitable protective equipment may intervene.

### 6.2 Environmental precautions

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.

### 6.3 Methods and material for containment and cleaning up

Methods for 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.
Non-sparking tools should be used.

### 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 : 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.
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.

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 : 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.

### 7.3 Specific end use(s)

Specific use(s) : Specific instructions for handling, not required.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational Exposure Limits**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| butane | 106-97-8 | VME | 800 ppm<br>1.900 mg/m3 | FR VLE (2005-02-01) |
| | Further information: Permissible limit values (circular) | | | |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | Not Assigned | VME (Vapour) | 1.000 mg/m3 | FR VLE (2016-10-01) |
| | Further information: Permissible limit values (circular) | | | |
| | | VLCT (VLE) (Vapour) | 1.500 mg/m3 | FR VLE (2016-10-01) |
| | Further information: Permissible limit values (circular) | | | |

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

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|---|---|---|---|---|
| Distillates (petroleum), | Workers | Inhalation | Long-term local effects | 5,58 mg/m3 |

| | | | | |
|---|---|---|---|---|
| hydrotreated heavy paraffinic; Baseoil — unspecified | | | | |
| | Workers | Inhalation | Long-term systemic effects | 2,73 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 0,97 mg/kg |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified | Workers | Inhalation | Long-term systemic effects | 2,73 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 0,97 mg/kg |
| Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified | Workers | Inhalation | Long-term local effects | 5,58 mg/m3 |
| | Workers | Inhalation | Long-term systemic effects | 2,73 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 0,97 mg/kg |
| Sulfonic acids, petroleum, calcium salts | Workers | Inhalation | Long-term systemic effects | 11,75 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 3,33 mg/m3 |
| | Workers | Skin contact | Long-term local effects | 1,03 mg/cm2 |

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

| Substance name | Environmental Compartment | Value |
|---|---|---|
| Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil — unspecified | Oral | 9,33 mg/kg |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified | Oral | 9,33 mg/kg |
| Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified | Oral | 9,33 mg/kg |
| Sulfonic acids, petroleum, calcium salts | Fresh water | 1 mg/l |
| | Marine water | 1 mg/l |
| | Intermittent use/release | 10 mg/l |
| | Microbiological Activity in Sewage Treatment Systems | 1000 mg/l |
| | Fresh water sediment | 226000000 mg/kg |
| | Marine sediment | 226000000 |

| | | |
|---|---|---|
| | | mg/kg |
| | Soil | 271000000 mg/kg |

### 8.2 Exposure controls

**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**

Eye/face protection : Safety glasses with side-shields

Hand protection
- Material : Nitrile 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.
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

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.

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Short term only

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.

**Environmental exposure controls**

Air : No special environmental precautions required.
Soil : The product should not be allowed to enter drains, water courses or the soil.
Water : The product should not be allowed to enter drains, water courses or the soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | aerosol |
| Colour | : | beige |
| Odour | : | hydrocarbon-like |
| Odour Threshold | : | No data available |
| Melting point/ range | : | No data available |
| Boiling point/boiling range | : | -44 °C (1.013 hPa) |
| Flammability | : | Flammability (solid, gas):<br>Extremely flammable aerosol. |
| Upper explosion limit / Upper flammability limit | : | 8,5 %(V) |
| Lower explosion limit / Lower flammability limit | : | 0,6 %(V) |
| Flash point | : | -97 °C<br>Method: closed cup |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| pH | : | Not applicable<br>substance/mixture is non-soluble (in water) |
| Viscosity | | |
| Viscosity, dynamic | : | No data available |

| | | |
|---|---|---|
| Viscosity, kinematic | : | < 20,5 mm2/s (40 °C) |
| Solubility(ies) | | |
| Water solubility | : | insoluble |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Vapour pressure | : | 5.500 hPa (20 °C) |
| Relative density | : | 0,67 (20 °C)<br>Reference substance: Water<br>The value is calculated |
| Density | : | 0,67 g/cm3<br>(20 °C) |
| Bulk density | : | No data available |
| Relative vapour density | : | No data available |

**9.2 Other information**

| | | |
|---|---|---|
| Explosives | : | Not explosive |
| Oxidizing properties | : | No data available |
| Self-ignition | : | No data available |
| Metal corrosion rate | : | Not corrosive to metals |
| Evaporation rate | : | No data available |
| Sublimation point | : | 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 : Heat, flames and sparks.
Strong sunlight for prolonged periods.
Risk of receptacle bursting.

### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity**

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

**Product:**

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

Acute inhalation toxicity : Symptoms: Inhalation may provoke the following symptoms:, Respiratory disorder, Local irritation, Respiratory disorders

Remarks: Irritating to respiratory system.

Acute dermal toxicity : Remarks: Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.

Symptoms: Redness, Local irritation, Skin disorders

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

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

Method: OECD Test Guideline 401

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

**isobutane:**

Acute inhalation toxicity : LC50 (Rat): 658 mg/l
Exposure time: 4 h
Test atmosphere: gas

**Sulfonic acids, petroleum, calcium salts:**

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

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 (Rabbit): > 5.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

**butane:**

Acute inhalation toxicity : LC50 (Rat): 658 mg/l
Exposure time: 4 h
Test atmosphere: gas

**Skin corrosion/irritation**

Repeated exposure may cause skin dryness or cracking.

**Product:**

Remarks : This information is not available.

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

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

Result : Repeated exposure may cause skin dryness or cracking.

**Sulfonic acids, petroleum, calcium salts:**

Species : Rabbit

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

**Serious eye damage/eye irritation**

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

**Product:**

| | | |
|---|---|---|
| Remarks | : | Contact with eyes may cause irritation. |

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

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

**Sulfonic acids, petroleum, calcium salts:**

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

**Respiratory or skin sensitisation**

**Skin sensitisation**

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

**Respiratory sensitisation**

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

**Product:**

| | | |
|---|---|---|
| Remarks | : | This information is not available. |

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

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

**Sulfonic acids, petroleum, calcium salts:**

| | | |
|---|---|---|
| Test Type | : | Buehler Test |
| Species | : | Guinea pig |
| Assessment | : | The product is a skin sensitiser, sub-category 1B. |
| Result | : | The product is a skin sensitiser, sub-category 1B. |

**Germ cell mutagenicity**

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

**Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

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

**Sulfonic acids, petroleum, calcium salts:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

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

**Carcinogenicity**

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

**Product:**

Remarks : No data available

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

**Sulfonic acids, petroleum, calcium salts:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

**Reproductive toxicity**

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

**Product:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

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

**Sulfonic acids, petroleum, calcium salts:**

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat
Application Route: Oral
General Toxicity - Parent: NOAEL: > 500
General Toxicity F1: NOAEL: > 500
Method: OECD Test Guideline 415

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

**STOT - single exposure**

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

**Product:**

Remarks : No data available

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

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

**Sulfonic acids, petroleum, calcium salts:**

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

**STOT - repeated exposure**

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

**Product:**

Remarks : No data available

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

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

**Sulfonic acids, petroleum, calcium salts:**

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

**Repeated dose toxicity**

**Product:**

Remarks : This information is not available.

**Components:**

**Sulfonic acids, petroleum, calcium salts:**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 500 mg/kg |
| Application Route | : | Oral |
| Method | : | OECD Test Guideline 407 |

**Aspiration toxicity**

May be fatal if swallowed and enters airways.

**Product:**

May be fatal if swallowed and enters airways.

**Components:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

May be fatal if swallowed and enters airways.

### 11.2 Information on other hazards

**Endocrine disrupting properties**

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

**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**Further information**

**Product:**

Remarks : Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

## SECTION 12: Ecological information

### 12.1 Toxicity

**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:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l<br>Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h |
| Toxicity to algae/aquatic plants | : | EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l<br>Exposure time: 72 h |

**Sulfonic acids, petroleum, calcium salts:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Cyprinodon variegatus (sheepshead minnow)): > 10.000 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Method: OECD Test Guideline 203<br>GLP: yes<br>Remarks: No toxicity at the limit of solubility |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 1.000 mg/l<br>Exposure time: 48 h |

| | | |
|---|---|---|
| | | Test Type: static test<br>Method: OECD Test Guideline 202<br>Remarks: No toxicity at the limit of solubility |
| Toxicity to algae/aquatic plants | : | EC50 (Pseudokirchneriella subcapitata (green algae)): > 1.500 mg/l<br>Exposure time: 72 h<br>Test Type: Growth inhibition<br>Remarks: No toxicity at the limit of solubility |
| Toxicity to microorganisms | : | EC50 (activated sludge): > 10.000 mg/l<br>Exposure time: 3 h<br>Test Type: static test<br>Method: OECD Test Guideline 209<br>GLP: yes |

**Ecotoxicology Assessment**

| | | |
|---|---|---|
| Chronic aquatic toxicity | : | This product has no known ecotoxicological effects., No toxicity at the limit of solubility |

### 12.2 Persistence and degradability

**Product:**

| | | |
|---|---|---|
| Biodegradability | : | Remarks: No data available |
| Physico-chemical removability | : | Remarks: No data available |

**Components:**

**Sulfonic acids, petroleum, calcium salts:**

| | | |
|---|---|---|
| Biodegradability | : | Test Type: aerobic<br>Inoculum: activated sludge<br>Result: Not rapidly biodegradable<br>Biodegradation: 8 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301F<br>GLP: yes |

### 12.3 Bioaccumulative potential

**Product:**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: No data available |

**Components:**

**propane:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | log Pow: 2,36 |

**isobutane:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | log Pow: 2,88<br>Method: OECD Test Guideline 107 |

**Sulfonic acids, petroleum, calcium salts:**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is possible. |
| Partition coefficient: n-octanol/water | : | log Pow: 10,88 (20 °C)<br>Method: OECD Test Guideline 117<br>GLP: yes |

**butane:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | log Pow: 2,89<br>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:**

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics:**

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

### 12.6 Endocrine disrupting properties

**Product:**

| | | |
|---|---|---|
| Assessment | : | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |

### 12.7 Other adverse effects

**Product:**

Additional ecological information : No information on ecology is available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

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

The following Waste Codes are only suggestions:

Waste Code : unused product, packagings not completely emptied
16 05 04*, gases in pressure containers (including halons) containing hazardous substances

## SECTION 14: Transport information

### 14.1 UN number or ID number

**ADN** : UN 1950

**ADR** : UN 1950

**RID** : UN 1950

**IMDG** : UN 1950

**IATA** : UN 1950

### 14.2 UN proper shipping name

**ADN** : AEROSOLS

**ADR** : AEROSOLS

**RID** : AEROSOLS

**IMDG** : AEROSOLS

| | | |
|---|---|---|
| **IATA** | : | Aerosols, flammable |

### 14.3 Transport hazard class(es)

| | | Class | Subsidiary risks |
|---|---|---|---|
| **ADN** | : | 2 | 2.1 |
| **ADR** | : | 2 | 2.1 |
| **RID** | : | 2 | 2.1 |
| **IMDG** | : | 2.1 | |
| **IATA** | : | 2.1 | |

### 14.4 Packing group

**ADN**

| | | |
|---|---|---|
| Packing group | : | Not assigned by regulation |
| Classification Code | : | 5F |
| Labels | : | 2.1 |

**ADR**

| | | |
|---|---|---|
| Packing group | : | Not assigned by regulation |
| Classification Code | : | 5F |
| Labels | : | 2.1 |
| Tunnel restriction code | : | (D) |

**RID**

| | | |
|---|---|---|
| Packing group | : | Not assigned by regulation |
| Classification Code | : | 5F |
| Hazard Identification Number | : | 23 |
| Labels | : | 2.1 |

**IMDG**

| | | |
|---|---|---|
| Packing group | : | Not assigned by regulation |
| Labels | : | 2.1 |
| EmS Code | : | F-D, S-U |

**IATA (Cargo)**

| | | |
|---|---|---|
| Packing instruction (cargo aircraft) | : | 203 |
| Packing instruction (LQ) | : | Y203 |
| Packing group | : | Not assigned by regulation |
| Labels | : | Flammable Gas |

**IATA (Passenger)**

| | | |
|---|---|---|
| Packing instruction (passenger aircraft) | : | 203 |
| Packing instruction (LQ) | : | Y203 |
| Packing group | : | Not assigned by regulation |
| Labels | : | Flammable Gas |

### 14.5 Environmental hazards

**ADN**
Environmentally hazardous : no

**ADR**
Environmentally hazardous : no

**RID**
Environmentally hazardous : no

**IMDG**
Marine pollutant : no

### 14.6 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.

### 14.7 Maritime transport in bulk according to IMO instruments

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 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) | : | Conditions of restriction for the following entries must be considered::<br>Number on list 40<br>This substance/mixture shall not be used in aerosol dispensers intended for supply to the general public for entertainment and decorative purposes.<br><br>Number on list 75<br>If you intend to use this product as tattoo ink, please contact your vendor. |
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).<br>(EU SVHC) | : | This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57). |
| Regulation (EU) No 2024/590 on substances that deplete the ozone layer<br>(EC 2024/590) | : | Not applicable |

## OKS 671

| Version | Revision Date: | Date of last issue: 06.02.2025 | Print Date: |
|---|---|---|---|
| 4.0 | 11.11.2026 | Date of first issue: 10.07.2016 | 11.11.2026 |

| | | | |
|---|---|---|---|
| Regulation (EU) 2019/1021 on persistent organic pollutants (recast) (EU POP) | : | | Not applicable |
| Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals (EU PIC) | : | | Not applicable |
| REACH - List of substances subject to authorisation (Annex XIV) (EU. REACH-Annex XIV) | : | | Not applicable |
| Regulation (EU) 2019/1148 on the marketing and use of explosives precursors | | | 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. | | P3a | FLAMMABLE AEROSOLS |
| | | 18 | Liquefied flammable gases (including LPG) and natural gas |
| | | P2 | |
| Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | | 34 | Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) |
| Installations classified for the | : | | 4320, 4718, 4734, 4310 |

protection of the environment (Environment Code R511-9)

| | | |
|---|---|---|
| Occupational Illnesses (R-461-3, France) | : | 84, 36, 36 bis |
| Reinforced medical supervision (R4624-23) | : | The product has no CMR properties category 1, 1A or 1B |
| Volatile organic compounds | : | Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control)<br>Volatile organic compounds (VOC) content: 80,51 % |

**Other regulations:**

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

### 15.2 Chemical safety assessment

This information is not available.

## SECTION 16: Other information

**Full text of H-Statements**

| | | |
|---|---|---|
| H220 | : | Extremely flammable gas. |
| H280 | : | Contains gas under pressure; may explode if heated. |
| H304 | : | May be fatal if swallowed and enters airways. |
| H317 | : | May cause an allergic skin reaction. |
| EUH066 | : | Repeated exposure may cause skin dryness or cracking. |

**Full text of other abbreviations**

| | | |
|---|---|---|
| Asp. Tox. | : | Aspiration hazard |
| Flam. Gas | : | Flammable gases |
| Note C | : | Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers. |
| Note P | : | The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260- |

| | | |
|---|---|---|
| | | P262-P301 + P310-P331 shall apply. |
| Note S | : | This substance may not require a label according to Article 17 (see Section 1.3 of Annex I) (Table 3). |
| Note U (Table 3) | : | When put on the market gases have to be classified as “Gases under pressure”, in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned: Press. Gas (Comp.) Press. Gas (Liq.) Press. Gas (Ref. Liq.) Press. Gas (Diss.) Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2). |
| Press. Gas | : | Gases under pressure |
| Skin Sens. | : | Skin sensitisation |
| FR VLE | : | France. Occupational Exposure Limits |
| FR VLE / VME | : | Time Weighted Average |
| FR VLE / VLCT (VLE) | : | Short Term Exposure Limit |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; BGW - Biological Limit Values; 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 Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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); LSPN - List of Hazardous Notified Substances (Chile); 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 - Organisation 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; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

## OKS 671

| Version | Revision Date: | Date of last issue: 06.02.2025 | Print Date: |
|---|---|---|---|
| 4.0 | 11.11.2026 | Date of first issue: 10.07.2016 | 11.11.2026 |

**Further information**

| **Classification of the mixture:** | | **Classification procedure:** |
|---|---|---|
| Aerosol 1 | H222, H229 | Based on product data or assessment |
| Asp. Tox. 1 | H304 | Based on product data or assessment |

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

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