according to GB/T 16483 and GB/T 17519



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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : OKS 391

Chemical nature : Active substance with propellant

Mineral oil.

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

Restrictions on use : Restricted to professional users.

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance : aerosol
Colour : yellow
Odour : characteristic

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

GHS Classification

Aerosols : Category 1

GHS label elements



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



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Hazard pictograms :

Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

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.

Storage:

P410 + P412 Protect from sunlight. Do not expose to tempera-

tures exceeding 50 °C/ 122 °F.

Physical and chemical hazards

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

Health hazards

Not classified based on available information.

Environmental hazards

Not classified based on available information.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
distillates (petroleum), hydrotreated heavy par-	64742-54-7	>= 30 -< 50
affinic		
Butane	106-97-8	>= 30 -< 50
propane	74-98-6	>= 10 -< 20
Isobutane	75-28-5	>= 1 -< 10

4. FIRST AID MEASURES

according to GB/T 16483 and GB/T 17519



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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 respira-

tion.

In case of skin contact : Remove contaminated clothing. If irritation develops, get med-

ical attention.

Wash off with soap and plenty of water.

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.

If swallowed : Move the victim to fresh air.

Keep respiratory tract clear. Do NOT induce vomiting. Rinse mouth with water.

Most important symptoms

and effects, both acute and

delayed

Inhalation may provoke the following symptoms:

Unconsciousness Dizziness

Drowsiness Headache Nausea Tiredness

Notes to physician : Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : ABC powder

Unsuitable extinguishing

media

High volume water jet

Specific hazards during fire-

fighting

Fire Hazard

Do not let product enter drains.

Contains gas under pressure; may explode if heated.

Beware of vapours accumulating to form explosive concentra-

tions. Vapours can accumulate in low areas.

Hazardous combustion prod- : Carbon oxides

according to GB/T 16483 and GB/T 17519



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ucts Oxides of phosphorus

Specific extinguishing meth-

ods

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 emer-

gency procedures

Evacuate personnel to safe areas.

Ensure adequate ventilation. Remove all sources of ignition.

Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Try t

Try to prevent the material from entering drains or water

courses.

Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages

cannot be contained.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local

/ national regulations (see section 13).

Keep in suitable, closed containers for disposal.

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.



according to GB/T 16483 and GB/T 17519



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Smoking, eating and drinking should be prohibited in the ap-

plication area.

Wash hands and face before breaks and immediately after

handling the product.

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 (Form of exposure)	Control parameters / Permissible concentration	Basis
distillates (petroleum), hy- drotreated heavy paraffinic	64742-54-7	TWA (Inhal- able particu- late matter)	5 mg/m3	ACGIH (2013-03-01)
Butane	106-97-8	STEL	1,000 ppm	ACGIH (2018-03-20)
Isobutane	75-28-5	STEL	1,000 ppm	ACGIH (2018-03-20)

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

ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Short term only



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Filter type : Filter type A-P

Eye/face protection : Safety glasses with side-shields

Hand protection

Material : Fluorinated 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.

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the spe-

cific work-place.

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

handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : aerosol

Colour : yellow

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable

substance/mixture is non-soluble (in water)

Melting point/range : No data available

Boiling point/boiling range : -161 °C

(1,013 hPa)



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



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Flash point : -90 °C

Method: Abel-Pensky

Evaporation rate : No data available

Flammability (solid, gas) : Extremely flammable aerosol.

Self-ignition : No data available

Upper explosion limit / Upper

flammability limit

15 %(V)

Lower explosion limit / Lower

flammability limit

3 %(V)

Vapour pressure : 5,300 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0.69 (20 °C)

Reference substance: Water The value is calculated

Density : 0.69 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 : No data available

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 reac-

tions

No dangerous reaction known under conditions of normal use.

Conditions to avoid : Heat, flames and sparks.

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: This information is not available.

Acute inhalation toxicity : Symptoms: Inhalation may provoke the following symptoms:,

Respiratory disorder

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

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

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

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

according to GB/T 16483 and GB/T 17519



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Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

Method: OECD Test Guideline 402

Butane:

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

Exposure time: 4 h Test atmosphere: gas

Isobutane:

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

Exposure time: 4 h
Test atmosphere: gas

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

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 : Contact with eyes may cause irritation.

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

Species : Rabbit

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



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Result : No eye irritation
Assessment : No eye irritation

Method : OECD Test Guideline 405

GLP : yes

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

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

Genotoxicity in vivo : Remarks: No data available

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

Germ cell mutagenicity - : Tests on bacterial or mammalian cell cultures did not show

Assessment mutagenic effects.

Carcinogenicity

Product:

Remarks : No data available

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

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



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Carcinogenicity - Assess-

ment

: Not classifiable as a human carcinogen.

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal develop-

ment

: Remarks: No data available

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

Reproductive toxicity - As- : - Fertility -

sessment

No toxicity to reproduction

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.

Further information

Product:

Remarks : Information given is based on data on the components and

the toxicology of similar products.

according to GB/T 16483 and GB/T 17519



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12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish

Remarks: No data available

Toxicity to daphnia and other :

aquatic invertebrates

Remarks: No data available

Toxicity to algae/aquatic

plants

Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 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)): > 10,000 mg/l

Exposure time: 48 h Test Type: Immobilization

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae/aquatic

plants

NOEC (Pseudokirchneriella subcapitata (microalgae)): > 100

mg/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOELR (Daphnia magna (Water flea)): 10 mg/l

Exposure time: 21 d

Method: OECD Test Guideline 211

Remarks: No toxicity at the limit of solubility

according to GB/T 16483 and GB/T 17519



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Persistence and degradability

Product:

Biodegradability Remarks: No data available

Physico-chemical removabil- : Remarks: No data available

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

Biodegradability aerobic

> Inoculum: activated sludge Result: Not readily biodegradable.

Biodegradation: 3 % Exposure time: 28 d

Method: OECD Test Guideline 301B

GLP: yes

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:

Butane:

Partition coefficient: nlog Pow: 2.89

Method: OECD Test Guideline 107 octanol/water

propane:

Partition coefficient: n-

octanol/water

log Pow: 2.36

Isobutane:

Partition coefficient: n-

log Pow: 2.88

octanol/water Method: OECD Test Guideline 107

according to GB/T 16483 and GB/T 17519



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Mobility in soil

Product:

Remarks: No data available Mobility

Distribution among environ-

mental compartments

Remarks: No data available

Other adverse effects

Product:

Additional ecological infor-

mation

: No information on ecology is available.

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

Packing group : Not assigned by regulation

Labels 2.1

IATA-DGR

UN 1950 UN/ID No.

Proper shipping name Aerosols, flammable

Class

Packing group Not assigned by regulation

Labels Flammable Gas

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



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Packing instruction (cargo : 203

aircraft)

Packing instruction (passen: 203

ger aircraft)

IMDG-Code

UN number : UN 1950
Proper shipping name : AEROSOLS

Class : 2.1

Packing group : Not assigned by regulation

Labels : 2.1

EmS Code : F-D, S-U

Marine pollutant : no

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

Product name	Status	Reference number
OKS 391	Listed	2828

List of ingredients	CAS-No.	Status	Reference number
Butane	106-97-8	Listed	2778
propane	74-98-6	Listed	139



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Isobutane 75-28-5 Listed 2707

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

No. / Code Chemical name / Category Threshold quantity

W3 Aerosols 150 t

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

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

16. OTHER INFORMATION

Date format : yyyy/mm/dd

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average ACGIH / STEL : 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 Tem-



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perature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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

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