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

1.1 Product identifier

Product name : OKS 491

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

Use of the : Lubricant

Substance/Mixture

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-Gernlinden

Deutschland

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

E-mail address of person responsible for the SDS

mcm@oks-germany.com

National contact

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.

Specific target organ toxicity - single H336: May cause drowsiness or dizziness.



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exposure, Category 3, Central nervous

system

Specific target organ toxicity - single exposure, Category 3, Respiratory

system

H335: May cause respiratory irritation.

Aspiration hazard, Category 1 H304: May be fatal if swallowed and enters

airways.

Long-term (chronic) aquatic hazard,

Category 3

H412: Harmful to aquatic life with long lasting

effects.

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.

H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H412 Harmful to aquatic life with long lasting

effects.

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

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temperatures exceeding 50 °C/ 122 °F.

Hazardous components which must be listed on the label:

Hydrocarbons, C9, aromatics

Hydrocarbons, C9-C10, 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 : Active substance with propellant

Mineral oil.

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity	Concentration (% w/w)
Hydrocarbons, C9, aromatics	918-668-5 01-2119455851-35- XXXX	Flam. Liq.3; H226 STOT SE3; H335 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Chronic2; H411; EUH066	estimate Note P	>= 20 - < 25
Hydrocarbons, C9-C10, n-alkanes,	927-241-2	Flam. Liq.3; H226 STOT SE3; H336		>= 10 - < 20



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isoalkanes, cyclics, <2% aromatics	01-2119471843-32- XXXX	Asp. Tox.1; H304 Aquatic Chronic3; H412; EUH066	Note P	
propane	74-98-6 200-827-9 601-003-00-5 01-2119486944-21- XXXX	Flam. Gas1A; H220 Press. GasCompr. Gas; H280	Note U (Table 3)	>= 1 - < 10
Substances with a wo	rkplace exposure limit:			
butane	106-97-8 203-448-7 601-004-00-0 01-2119474691-32- XXXX	Flam. Gas1; H220 Press. GasCompr. Gas; H280	Note U (Table 3), Note C	>= 10 - < 20
Graphite	7782-42-5 231-955-3	Not classified		>= 1 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

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

Remove person to fresh air. If signs/symptoms continue, get

medical attention.

Keep patient warm and at rest.

If unconscious, place in recovery position and seek medical

advice.

Keep respiratory tract clear.

If breathing is irregular or stopped, administer artificial

respiration.

In case of skin contact : Take off all contaminated clothing immediately.

Get medical attention immediately if irritation develops and

persists.

Wash clothing before reuse.

Thoroughly clean shoes before reuse.

Wash skin thoroughly with soap and water or use recognized

skin cleanser.



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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.

If accidentally swallowed obtain immediate medical attention.

Keep respiratory tract clear. Do NOT induce vomiting. 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 : Central nervous system depression

Can be absorbed through skin.

Risk of product entering the lungs on vomiting after ingestion.

Health injuries may be delayed.

May be fatal if swallowed and enters airways.

May cause respiratory irritation. May cause drowsiness or dizziness.

Repeated exposure may cause skin dryness or cracking.

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



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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.

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. 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 : Do not allow contact with soil, surface or ground water.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

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.



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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



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Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
butane	106-97-8	VME	800 ppm	FR VLE
			1.900 mg/m3	(2005-02-01)
	Further information: Permissible limit values (circular)			
Hydrocarbons, C9-	Not	VME (Vapour)	1.000 mg/m3	FR VLE
C10, n-alkanes,	Assigned	, , ,	o o	(2016-10-01)
isoalkanes, cyclics,	1.00.9			(=====
<2% aromatics				
1270 diomatios	E (1) (of a December 1915		
	Further information: Permissible limit values (circular)			
		VLCT (VLE)	1.500 mg/m3	FR VLE
		(Vapour)		(2016-10-01)
	Further information: Permissible limit values (circular)			
Graphite	7782-42-5	VME (Alveolar	2 mg/m3	FR VLE
		fraction)		(2007-12-01)
	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
Hydrocarbons, C9, aromatics	Workers	Skin contact	Long-term systemic effects	25 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	150 mg/m3
Graphite	Workers	Inhalation	Long-term local effects	1,2 mg/m3
Hydrocarbons, C9- C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	Workers	Inhalation	Long-term systemic effects	871 mg/m3
	Workers	Skin contact	Long-term systemic effects	77 mg/kg bw/day

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 : 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



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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 :

Should not be released into the environment.

Soil :

Do not allow contact with soil, surface or ground water. The product should not be allowed to enter drains, water

courses or the soil.

Water :

Do not allow contact with soil, surface or ground 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 : black

Odour : characteristic

Odour Threshold : No data available

a brand of

FREUDENBERG

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Melting point/ range : No data available

Boiling point/boiling range : < -20 °C (1.013 hPa)

Flammability (solid, gas) : Extremely flammable aerosol.

Upper explosion limit / Upper

flammability limit

12,5 %(V)

Lower explosion limit / Lower

flammability limit

0,6 %(V)

Flash point : < -20 °C

Method: DIN 51755, closed cup

Auto-ignition temperature : > 235 °C

Decomposition temperature : No data available

pH : Not applicable

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 : 3.700 hPa (20 °C)

Relative density : 0,756 (20 °C)

Reference substance: Water The value is calculated

Density : 0,76 g/cm3

(20 °C)

Bulk density : No data available

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Relative vapour density : No data available

9.2 Other information

Explosives : Not explosive

Oxidizing properties : No data available

Self-ignition : not auto-flammable

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.



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Product:

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

Symptoms: Central nervous system depression

Acute inhalation toxicity : Remarks: Respiration of solvent vapour may cause dizziness.

Irritating to respiratory system.

Symptoms: Inhalation may provoke the following symptoms:, Respiratory disorder, Local irritation, Respiratory disorders, Dizziness, Drowsiness, Vomiting, Fatigue, Vertigo, Central

nervous system depression

Acute dermal toxicity : Remarks: Prolonged or repeated skin contact with liquid may

cause defatting resulting in drying, redness and possible

blistering.

Symptoms: Skin disorders

Components:

Hydrocarbons, C9, aromatics:

Acute oral toxicity : LD50 (Rat): 4.200 mg/kg

Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Method: OECD Test Guideline 402

Assessment: The component/mixture is minimally toxic after

single contact with skin.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

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

Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: The substance or mixture is classified as specific

target organ toxicant, single exposure, category 3 with

narcotic effects.

butane:

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

Exposure time: 4 h Test atmosphere: gas

Graphite:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 401

Assessment: The substance or mixture has no acute oral

toxicity

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Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

Product:

Remarks : This information is not available.

Components:

Hydrocarbons, C9, aromatics:

Species : Rabbit

Method : OECD Test Guideline 404

Result : Mild skin irritation

Result : Repeated exposure may cause skin dryness or cracking.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Result : Repeated exposure may cause skin dryness or cracking.

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, C9, aromatics:

Species : Rabbit

Assessment : No eye irritation 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, C9, aromatics:

Test Type : Maximisation Test



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Species : Guinea pig

Assessment : Does not cause skin sensitisation.

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

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, C9, aromatics:

Germ cell mutagenicity- : Animal testing did not show any mutagenic effects.

Assessment

Carcinogenicity

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

Product:

Remarks : No data available

Components:

Hydrocarbons, C9, aromatics:

Carcinogenicity - : Not classifiable as a human carcinogen.

Assessment

Reproductive toxicity

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

Product:

Effects on fertility : Remarks: No data available

Effects on foetal : Remarks: No data available

development

Components:

Hydrocarbons, C9, aromatics:

Reproductive toxicity - : - Fertility -

Assessment No toxicity to reproduction

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STOT - single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

Product:

Remarks : No data available

Components:

Hydrocarbons, C9, aromatics:

Exposure routes : Inhalation

Target Organs : Respiratory system

Assessment : May cause respiratory irritation.

Exposure routes : Inhalation

Target Organs : Central nervous system

Assessment : May cause drowsiness or dizziness.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Assessment : May cause drowsiness or dizziness.

STOT - repeated exposure

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

Product:

Remarks : No data available

Components:

Hydrocarbons, C9, aromatics:

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:

Hydrocarbons, C9, aromatics:

Repeated dose toxicity - : Repeated or prolonged exposure may cause skin irritation and

Assessment dermatitis, due to degreasing properties of the product.

Aspiration toxicity

May be fatal if swallowed and enters airways.

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Product:

This information is not available.

Components:

Hydrocarbons, C9, aromatics:

May be fatal if swallowed and enters airways.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

May be fatal if swallowed and enters airways.

11.2 Information on other hazards

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.

Further information

Product:

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: Harmful to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.

Toxicity to daphnia and other :

aquatic invertebrates

Remarks: No data available

Toxicity to algae/aquatic

plants

Remarks: No data available

Toxicity to microorganisms

Remarks: No data available



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Components:

Hydrocarbons, C9, aromatics:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 9,22 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 6,14 mg/l

Exposure time: 48 h

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

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

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 10 - < 30 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 22 - 46 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

(Pseudokirchneriella subcapitata (green algae)): > 1.000 mg/l

Exposure time: 72 h

Ecotoxicology Assessment

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

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical

removability

Remarks: No data available

Components:

Hydrocarbons, C9, aromatics:

Biodegradability : Result: rapidly biodegradable

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Biodegradability : Result: rapidly biodegradable

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12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Hydrocarbons, C9, aromatics:

Partition coefficient: n- : log

octanol/water

log Pow: 3,7 - 4,5

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Bioaccumulation : Remarks: Not applicable

Partition coefficient: n-

octanol/water

Remarks: No data available

propane:

Partition coefficient: n-

octanol/water

log Pow: 2,36

butane:

Partition coefficient: n-

: log Pow: 2,89

octanol/water

Method: OECD Test Guideline 107

Graphite:

Partition coefficient: n-

octanol/water

: Remarks: No data available

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.



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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

Harmful to aquatic life with long lasting effects.

Global warming potential

Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) of the United Nations Framework Convention on Climate Change (UNFCCC)

Components:

propane:

20-year global warming potential: 0,072 100-year global warming potential: 0,02 500-year global warming potential: 0,006

Atmospheric lifetime: 0,036 yr Radiative efficiency: 0 Wm2ppb

Further information: Miscellaneous compounds

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

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878 - FR



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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)

ADN : 2
ADR : 2
RID : 2
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

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878 - FR



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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 : 203

aircraft)

Packing instruction (LQ) : Y203

Packing group : Not assigned by regulation

Labels : Flammable Gas

IATA (Passenger)

Packing instruction : 203

(passenger aircraft)

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,

: Not applicable

mixtures and articles (Annex XVII)



according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878 - FR



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REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

(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

(EC 2024/590)

Not applicable

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

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.

P3a FLAMMABLE AEROSOLS

Liquefied flammable gases (including LPG) and natural gas

, ,

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



according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878 - FR



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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 protection of the environment (Environment Code R511-9)

4320, 4734, 4310

Occupational Illnesses (R-

461-3, France)

4 bis, 84, 25

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

Volatile organic compounds (VOC) content: 64,3 %

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. H226 : Flammable liquid and vapour.

H280 : Contains gas under pressure; may explode if heated. H304 : May be fatal if swallowed and enters airways.

H335 : May cause respiratory irritation. H336 : May cause drowsiness or dizziness.

H411 : Toxic to aquatic life with long lasting effects.

a brand of
FREUDENBERG

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878 - FR



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H412 : Harmful to aquatic life with long lasting effects.

EUH066 : Repeated exposure may cause skin dryness or cracking.

Full text of other abbreviations

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 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).

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; 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

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- 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; 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

Further information

Classification of the mixture: Classification procedure:

Aerosol 1	H222, H229	Based on product data or assessment
STOT SE 3	H336	Calculation method
STOT SE 3	H335	Calculation method
Asp. Tox. 1	H304	Calculation method
Aquatic Chronic 3	H412	Calculation method

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

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