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

1.1 Product identifier

Product name : OKS 2521

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

Use of the Sub- : Anticorrosion additive

stance/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

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 :

1.4 Emergency telephone number

Emergency telephone num- : CIAV - Information Centre of Antipoison

ber (+351) 800 250 250 (free 24/7 service)

# **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.

Skin irritation, Category 2 H315: Causes skin irritation.

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

ways.

Long-term (chronic) aquatic hazard, Cat- H412: Harmful to aquatic life with long lasting ef-

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egory 3 fects.

#### 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 air-

ways.

H315 Causes skin irritation.

H412 Harmful to aquatic life with long lasting ef-

fects.

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:

xylene

ethylbenzene

# 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.



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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 agent with propellant and solvent.

Metal powder

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification  Flam. Liq.3; H226	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w) >= 30 - < 50
Xylerie	215-535-7 601-022-00-9	Acute Tox.4; H332	Note C	>= 30 - < 30
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)	>= 20 - < 30
ethylbenzene	100-41-4 202-849-4 601-023-00-4 01-2119489370-35- XXXX	Flam. Liq.2; H225 Acute Tox.4; H332 STOT RE2; H373 Asp. Tox.1; H304 Aquatic Chronic3; H412		>= 2,5 - < 10
acetone	67-64-1 200-662-2 606-001-00-8 01-2119471330-49- XXXX	Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336; EUH066		>= 1 - < 10
zinc powder — zinc dust (stabilised)	7440-66-6 231-175-3 030-001-01-9 01-2119467174-37-	Aquatic Acute1; H400 Aquatic Chronic1; H410	M-Factor: 1/1	>= 0,25 - < 1



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	XXXX			
Substances with a wor	kplace exposure limit:			
butane	106-97-8 203-448-7 601-004-00-0 01-2119474691-32- XXXX	Flam. Gas1A; H220 Press. GasCompr. Gas; H280	Note U (table 3.1), Note C	>= 10 - < 20
isobutane	75-28-5 200-857-2 601-004-00-0 01-2119485395-27- XXXX	Flam. Gas1A; H220 Press. GasCompr. Gas; H280	Note U (table 3.1), Note C	>= 1 - < 10

For explanation of abbreviations see section 16.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

If inhaled : Obtain medical attention.

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 : Take off all contaminated clothing immediately.

Wash off immediately with soap and plenty of water.

Get medical attention immediately if irritation develops and

persists.

Wash clothing before reuse.

Thoroughly clean shoes before reuse.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

for at least 10 minutes.

If eye irritation persists, consult a specialist.

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.



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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 : Risk of product entering the lungs on vomiting after ingestion.

Health injuries may be delayed.

Causes skin irritation.

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 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: :

ucts

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 decomposi-

tion products may be a hazard to health.

Further information : Standard procedure for chemical fires.

Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

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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** 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 ab-

> sorbent 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 ap-

plication 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.



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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
xylene	1330-20-7	TWA	50 ppm	2000/39/EC
			221 mg/m3	(2000-06-16)
	Further inform	nation: Identifies the	possibility of significant uptak	ce through the
	skin, Indicative	е		
		STEL	100 ppm	2000/39/EC
			442 mg/m3	(2000-06-16)
	Further inform skin, Indicative		possibility of significant uptak	te through the
		VLE-MP	100 ppm	PT OEL
				(2007-03-26)
Further information: Substances that are not classi		nat are not classified as carci	nogenic for	
humans.				
		VLE_CD	150 ppm	PT OEL
				(2007-03-26)
	Further inform	ation: Substances th	nat are not classified as carci	nogenic for
	humans.			
		TWA	50 ppm	PT DL
			221 mg/m3	305/2007
			_	(2007-08-24)
	Further information: A skin notation assigned to the occupational exposure			



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	limit value ir	ndicates the possib	oility of significant uptake	through the skin.				
		STEL	100 ppm	PT DL				
			442 mg/m3	305/2007				
			_	(2007-08-24)				
			tation assigned to the occ					
			oility of significant uptake					
butane	106-97-8	VLE_CD	1.000 ppm	PT OEL				
				(2014-11-14)				
ethylbenzene	100-41-4	TWA	100 ppm	2000/39/EC				
			442 mg/m3	(2000-06-16)				
	Further info		the possibility of significa	nt uptake through the				
		STEL	200 ppm	2000/39/EC				
			884 mg/m3	(2000-06-16)				
	Further info skin, Indicat		the possibility of significa	nt uptake through the				
	,	VLE-MP	20 ppm	PT OEL				
				(2014-11-14)				
	Further info	rmation: Substanc	es of which the carcinoge					
		confirmed in laboratory tests on animals with confirmed relevance for humans.						
		TWA	100 ppm	PT DL				
			442 mg/m3	305/2007 (2007-08-24)				
	Further information: A skin notation assigned to the occupational exposure							
	limit value indicates the possibility of significant uptake through the skin.							
		STEL	200 ppm	PT DL				
			884 mg/m3	305/2007				
	=			(2007-08-24)				
			tation assigned to the occ oility of significant uptake	through the skin.				
isobutane	75-28-5	VLE_CD	1.000 ppm	PT OEL				
				(2014-11-14)				
acetone	67-64-1	TWA	500 ppm	2000/39/EC				
			1.210 mg/m3	(2000-06-16)				
	Further info	rmation: Indicative						
		VLE-MP	500 ppm	PT OEL				
				(2014-11-14)				
	Further info humans.	Further information: Substances that are not classified as carcinogenic for						
		VLE_CD	750 ppm	PT OEL				
				(2014-11-14)				
	Further info humans.	rmation: Substanc	es that are not classified	as carcinogenic for				
		TWA	500 ppm	PT DL				
				305/2007				
			1.210 mg/m3	303/2007				

# **Biological occupational exposure limits**

Substance name	CAS-No.	Control parameters	Sampling time	Basis
xylene	1330-20-7	Methylhippuric	End of shift	PT NP1796
		acids (o, m, p): 1.5		(2014-11-
		g/g creatinine		14)



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		(Urine)		
ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid: 0.7 g/g creatinine (Urine)	End of shift	PT NP1796 (2014-11- 14)
acetone	67-64-1	Acetone: 50 mg/l (Urine)	End of shift	PT NP1796 (2014-11- 14)

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

Substance name	End Use	Exposure routes	Potential health effects	Value
ethylbenzene	Workers	Skin contact	Long-term systemic effects	180 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	77 mg/m3
	Workers	Inhalation	Acute local effects	293 mg/m3
acetone	Workers	Inhalation	Long-term systemic effects	1210 mg/m3
	Workers	Skin contact	Long-term systemic effects	186 mg/kg
zinc powder — zinc dust (stabilised)	Workers	Inhalation	Long-term systemic effects	5 mg/m3
	Workers	Skin contact	Long-term systemic effects	83 mg/kg

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

Substance name	Environmental Compartment	Value
ethylbenzene	Fresh water	0,1 mg/l
,	Marine water	0,01 mg/l
	Intermittent use/release	0,1 mg/l
	Microbiological Activity in Sewage Treat- ment Systems	9,6 mg/l
	Fresh water sediment	13,7 mg/kg
	Marine sediment	1,37 mg/kg
	Soil	2,68 mg/kg
	Oral	20 mg/kg
acetone	Fresh water	10,6 mg/l
	Marine water	1,06 mg/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	30,4 mg/kg
	Marine sediment	3,04 mg/kg
	Soil	29,5 mg/kg
zinc powder — zinc dust (stabilised)	Fresh water	0,0206 mg/l
	Fresh water sediment	235,6 mg/kg
	Marine water	0,0061 mg/l
	Marine sediment	121 mg/kg
	Microbiological Activity in Sewage Treat- ment Systems	0,052 mg/l
	Soil	106,8 mg/kg



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#### 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 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.

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 concen-

tration and amount of dangerous substances, and to the spe-

cific work-place.

Respiratory protection : Respirator with combination filter for vapour/particulate (EN

141)

Short term only

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

Filter type : ABEK-P3-filter

Protective measures : The type of protective equipment must be selected according

to the concentration and amount of the dangerous substance

at the specific workplace.

#### **SECTION 9: Physical and chemical properties**

# 9.1 Information on basic physical and chemical properties

Physical state : aerosol

Colour : silver

Odour : characteristic

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Odour Threshold : No data available

Melting point/range : No data available

Boiling point/boiling range : -161 °C (1.013 hPa)

Not applicable

Flammability (solid, gas) : Extremely flammable aerosol.

Upper explosion limit / Upper

flammability limit

10,9 %(V)

Lower explosion limit / Lower

flammability limit

: 1,1 %(V)

Flash point : -60 °C

Method: Abel-Pensky

Not applicable

Auto-ignition temperature : > 200 °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 : 5.500 hPa (20 °C)

not determined

Relative density : 0,66 (20 °C)

Reference substance: Water The value is calculated

Density : 0,66 g/cm3

(20 °C)

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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 : water

Oxidizing agents

## 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

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#### **SECTION 11: Toxicological information**

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

#### **Acute toxicity**

**Product:** 

Acute oral toxicity : Remarks: Harmful if swallowed.

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Remarks: Harmful by inhalation.

Symptoms: Inhalation may provoke the following symptoms:,

Respiratory disorder

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg

Method: Calculation method

Symptoms: Redness, Local irritation

#### **Components:**

xylene:

Acute inhalation toxicity : LC50 (Rat): 21 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Assessment: The component/mixture is moderately toxic after

short term inhalation.

Acute dermal toxicity : LD50 Dermal (Rat): > 1.000 mg/kg

Assessment: The component/mixture is moderately toxic after

single contact with skin.

ethylbenzene:

Acute oral toxicity : LD50 (Rat): 3.500 mg/kg

Acute inhalation toxicity : LC50 (Rat): 17,2 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): 15.400 mg/kg

acetone:

Acute oral toxicity : LD50 Oral (Rat): 5.800 mg/kg

zinc powder — zinc dust (stabilised):

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

Method: OECD Test Guideline 401

GLP: yes

Assessment: The substance or mixture has no acute oral tox-

icity

Acute inhalation toxicity : LC50 (Rat): > 5,41 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: yes

Assessment: The substance or mixture has no acute inhala-

tion toxicity

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 : Irritating to skin.

**Components:** 

xylene:

Result : Severe skin irritation

ethylbenzene:

Species : Rabbit

Result : Mild skin irritation

acetone:

Result : Repeated exposure may cause skin dryness or cracking.

zinc powder — zinc dust (stabilised):

Species : Rabbit

Assessment : No skin irritation Result : No skin irritation



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# Serious eye damage/eye irritation

**Product:** 

Remarks : Irritating to eyes.

**Components:** 

ethylbenzene:

Species : Rabbit

Assessment : No eye irritation Result : No eye irritation

acetone:

Species : Rabbit Result : Eye irritation

zinc powder — zinc dust (stabilised):

Species : Rabbit Exposure time : 24 h

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

GLP : yes

Respiratory or skin sensitisation

**Product:** 

Remarks : This information is not available.

**Components:** 

ethylbenzene:

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

zinc powder — zinc dust (stabilised):

Species : Guinea pig

Assessment : Did not cause sensitisation on laboratory animals.

Method : OECD Test Guideline 406

Result : Did not cause sensitisation on laboratory animals.

GLP : yes

Germ cell mutagenicity

**Product:** 

Genotoxicity in vitro : Remarks: No data available

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Genotoxicity in vivo : Remarks: No data available

**Components:** 

ethylbenzene:

Germ cell mutagenicity- As-

sessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

zinc powder — zinc dust (stabilised):

Germ cell mutagenicity- As-

sessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

Carcinogenicity

Product:

Remarks : No data available

**Components:** 

ethylbenzene:

Carcinogenicity - Assess-

ment

: Not classifiable as a human carcinogen.

zinc powder — zinc dust (stabilised):

Carcinogenicity - Assess-

ment

: No evidence of carcinogenicity in animal studies.

Reproductive toxicity

**Product:** 

Effects on fertility : Remarks: No data available

Effects on foetal develop-

ment

: Remarks: No data available

**Components:** 

ethylbenzene:

Reproductive toxicity - As-

sessment

: - Fertility -

No toxicity to reproduction

- Teratogenicity -

No toxicity to reproduction

zinc powder - zinc dust (stabilised):

Reproductive toxicity - As- : - Fertility -

sessment

No toxicity to reproduction

a brand of

FREUDENBERG

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- Teratogenicity -

No effects on or via lactation

STOT - single exposure

**Components:** 

ethylbenzene:

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

organ toxicant, single exposure.

acetone:

Exposure routes : Inhalation

Assessment : May cause drowsiness or dizziness.

STOT - repeated exposure

**Components:** 

ethylbenzene:

Exposure routes : Inhalation
Target Organs : hearing organs

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

toxicant, repeated exposure, category 2.

Repeated dose toxicity

**Product:** 

Remarks : This information is not available.

**Aspiration toxicity** 

**Product:** 

May be fatal if swallowed and enters airways.

May be fatal if swallowed and enters airways.

**Components:** 

xylene:

May be fatal if swallowed and enters airways.

ethylbenzene:

May be fatal if swallowed and enters airways.

zinc powder — zinc dust (stabilised):

No aspiration toxicity classification

according to Regulation (EC) No. 1907/2006 - PT (Commission Regulation (EU) 2020/878)



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#### 11.2 Information on other hazards

#### **Endocrine disrupting properties**

**Product:** 

Assessment : The substance/mixture does not contain components consid-

ered 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 : Risks of irreversible effects after a single exposure.

Ingestion causes irritation of upper respiratory system and

gastrointestinal disturbance.

Possible risk of irreversible effects.

## **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

**Components:** 

ethylbenzene:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4,2 mg/l

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

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 2,4 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae/aquatic

plants

EC50 (Skeletonema costatum (marine diatom)): 4,6 mg/l

Exposure time: 72 h

according to Regulation (EC) No. 1907/2006 - PT (Commission Regulation (EU) 2020/878)



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Test Type: static test

Toxicity to fish (Chronic tox-

icity)

NOEC: 3,3 mg/l Exposure time: 96 d

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0,96 mg/l Exposure time: 7 d

Species: Ceriodaphnia dubia (water flea)

Test Type: semi-static test

zinc powder — zinc dust (stabilised):

LC50 (Oncorhynchus kisutch (coho salmon)): 0,727 mg/l Toxicity to fish

> Exposure time: 96 h Test Type: static test

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0,937 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

M-Factor (Acute aquatic tox-

icity)

1

M-Factor (Chronic aquatic

toxicity)

**Ecotoxicology Assessment** 

Acute aquatic toxicity Very toxic to aquatic life.

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

12.2 Persistence and degradability

**Product:** 

Biodegradability Remarks: No data available

Physico-chemical removabil- :

Remarks: No data available

**Components:** 

ethylbenzene:

Biodegradability Result: Readily biodegradable.

acetone:

Biodegradability Result: rapidly biodegradable

according to Regulation (EC) No. 1907/2006 - PT (Commission Regulation (EU) 2020/878)



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## 12.3 Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: This mixture contains no substance considered to

be persistent, bioaccumulating and toxic (PBT).

This mixture contains no substance considered to be very

persistent and very bioaccumulating (vPvB).

Components:

propane:

Partition coefficient: n-

octanol/water

log Pow: 2,36

ethylbenzene:

Bioaccumulation : Bioconcentration factor (BCF): 1

Partition coefficient: n-

octanol/water

log Pow: 3,6 (20 °C)

acetone:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-

octanol/water

log Pow: 0,2

butane:

Partition coefficient: n-

octanol/water

log Pow: 2,89

Method: OECD Test Guideline 107

isobutane:

Partition coefficient: n-

log Pow: 2,88

octanol/water

Method: OECD Test Guideline 107

12.4 Mobility in soil

**Product:** 

Mobility : Remarks: No data available

Distribution among environ-

mental 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



according to Regulation (EC) No. 1907/2006 - PT (Commission Regulation (EU) 2020/878)



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0.1% or higher.

**Components:** 

ethylbenzene:

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

#### 12.6 Endocrine disrupting properties

**Product:** 

Assessment : The substance/mixture does not contain components consid-

ered 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 infor: :

mation

Harmful to aquatic life with long lasting effects.

#### **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



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ADR : UN 1950

RID : UN 1950

IMDG : UN 1950

IATA : UN 1950

14.2 UN proper shipping name

ADR : AEROSOLS
RID : AEROSOLS
IMDG : AEROSOLS

IATA : Aerosols, flammable

14.3 Transport hazard class(es)

ADR : 2

RID : 2

IMDG : 2.1

IATA : 2.1

14.4 Packing group

**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 : 203

aircraft)

Packing instruction (LQ) : Y203

Packing group : Not assigned by regulation

Labels : Flammable Gas

IATA (Passenger)

Packing instruction (passen- : 203

ger aircraft)

Packing instruction (LQ) : Y203

Packing group : Not assigned by regulation

Labels : Flammable Gas

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#### 14.5 Environmental hazards

**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 should be considered: xylene (Number on list 3)

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).

REACH - List of substances subject to authorisation (Annex XIV)

: Not applicable

(EU. REACH-Annex XIV)

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer

(EC 1005/2009)

: Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutanta (recent)

tants (recast) (EU POP) Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import

of dangerous chemicals

xylene

(EU PIC)

Regulation (EU) 2019/1148 on the marketing and use of :

This product is regulated by Regulation (EU) 2019/1148:

explosives precursors

acetone (ANNEX II)

a brand of
FREUDENBERG

ontact\_points\_en.pdf

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all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. Please see https://ec.europa.eu/home-affairs/sites/ homeaffairs/files/what-we-do/policies/crisis-andterrorism/explosives/explosivesprecursors/docs/list\_of\_competent\_authorities\_and\_national\_c

: P5c

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.

FLAMMABLE AEROSOLS P3a

18 Liquefied extremely flammable gases (including LPG) and natural gas

Volatile organic compounds Directive 2010/75/EU of 24 November 2010 on industrial

emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 99,5 %

#### Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

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**

EUH066 Repeated exposure may cause skin dryness or cracking.

H220 Extremely flammable gas.

Highly flammable liquid and vapour. H225

Flammable liquid and vapour. H226

Contains gas under pressure; may explode if heated. H280

May be fatal if swallowed and enters airways. H304

H312 Harmful in contact with skin.

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H315		:	Causes skin irritation.	
H319		:	Causes serious eye irritation.	
H332		:	Harmful if inhaled.	
H336		:	May cause drowsiness or dizzines	SS.
H373		:	May cause damage to organs throexposure if inhaled.	ough prolonged or repeated
H400		:	Very toxic to aquatic life.	
H410		:	Very toxic to aquatic life with long	lasting effects.
H412		:	Harmful to aquatic life with long la	asting effects.
EUH0	66	:	Repeated exposure may cause sl	kin 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 U (table 3.1)	:	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).
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
PT DL 305/2007	:	Portugal. Indicative Occupational Exposure Limits
PT NP1796	:	Portuguese Norm 1796 - Biological Exposure Indices
PT OEL	:	Portugal. Security and Health at the Workplace - Occupational exposure limits of chemical agents
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
PT DL 305/2007 / TWA	:	8 Hour limit value
PT DL 305/2007 / STEL	:	Short term limit value
PT OEL / VLE-MP	:	Time Weighted Average
PT OEL / VLE_CD	:	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 - Emergen-



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cy Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; 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

Skin Irrit. 2 H315 Calculation method

Asp. Tox. 1 H304 Based on product data or assessment

Aguatic Chronic 3 H412 Calculation method

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