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**OKS 2511** 

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

1.1 Product identifier

Product name : OKS 2511

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

Specific target organ toxicity - repeated

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

Aerosols, Category 1 H222: Extremely flammable aerosol.

H229: Pressurised container: May burst if heated.

H373: May cause damage to organs through pro-

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

exposure, Category 2, Auditory system longed or repeated exposure if inhaled.

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Short-term (acute) aquatic hazard, Cate-

gory 1

H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Cat-

egory 1

H410: Very toxic 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.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H373 May cause damage to organs (Auditory

system) through prolonged or repeated ex-

posure if inhaled.

H410 Very toxic to aquatic life with long lasting

effects.

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.

P260 Do not breathe mist.

P273 Avoid release to the environment.

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:

reaction mass of ethylbenzene and xylene

## 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.



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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 agent with propellant and solvent.

Metal powder

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w)
zinc powder — zinc dust (stabilised)	7440-66-6 231-175-3 030-001-01-9 01-2119467174-37- XXXX	Aquatic Acute1; H400 Aquatic Chronic1; H410	M-Factor: 1/1	>= 25 - < 30
reaction mass of ethylbenzene and xylene	905-588-0 01-2119488216-32- XXXX	Flam. Liq.3; H226 Acute Tox.4; H332 Acute Tox.4; H312 Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335 STOT RE2; H373 Asp. Tox.1; H304	Note C	>= 10 - < 20
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 - < 20
2-methoxy-1- methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29-	Flam. Liq.3; H226 STOT SE3; H336		>= 1 - < 10

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	XXXX			
Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics	918-167-1	Flam. Liq.3; H226 Asp. Tox.1; H304; EUH066	Note P	>= 1 - < 10
	01-2119472146-39- XXXX			
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29- XXXX	Flam. Liq.3; H226 STOT SE3; H336; EUH066		>= 1 - < 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
Substances with a work	place exposure limit :	<u> </u>		
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	>= 30 - < 50
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.



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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. Seek medical advice.

If swallowed : Move the victim to fresh air.

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

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

Risks : 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- : Fire Hazard

fighting Do not let product enter drains.

Contains gas under pressure; may explode if heated.

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Beware of vapours accumulating to form explosive concentra-

tions. Vapours can accumulate in low areas.

Hazardous combustion prod: :

ucts

Carbon oxides Metal 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. 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.

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### **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.

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.

tional regulations.

#### 7.3 Specific end use(s)

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

# **SECTION 8: Exposure controls/personal protection**

# 8.1 Control parameters

#### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
butane	106-97-8	VLE_CD	1.000 ppm	PT OEL (2014-11-14)
reaction mass of	Not As-	TWA	50 ppm	2000/39/EC



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ethylbenzene and xylene	signed		221 mg/m3	(2000-06-16)	
,	Further information: Identifies the possibility of significant uptake through skin, Indicative				
		STEL	100 ppm 442 mg/m3	2000/39/EC (2000-06-16)	
	Further inform skin, Indicativ	e e	ne possibility of significan		
		VLE-MP	100 ppm	PT OEL (2007-03-26)	
	Further inforn humans.		s that are not classified as		
		VLE_CD	150 ppm	PT OEL (2007-03-26)	
	Further inform humans.	nation: Substance	s that are not classified as	s carcinogenic for	
		TWA	50 ppm 221 mg/m3	PT DL 305/2007 (2007-08-24)	
			ition assigned to the occu lity of significant uptake th	rough the skin.	
		STEL	100 ppm 442 mg/m3	PT DL 305/2007 (2007-08-24)	
			ition assigned to the occulity of significant uptake the		
2-methoxy-1- methylethyl ace- tate	108-65-6	TWA	50 ppm 275 mg/m3	2000/39/EC (2000-06-16)	
	Further information: Identifies the possibility of significant uptake through skin, Indicative				
		STEL	100 ppm 550 mg/m3	2000/39/EC (2000-06-16)	
	Further inform skin, Indicativ		ne possibility of significan	t uptake through the	
		TWA	50 ppm 275 mg/m3	PT DL 305/2007 (2012-02-06)	
			ition assigned to the occu lity of significant uptake th		
		STEL	100 ppm 550 mg/m3	PT DL 305/2007 (2012-02-06)	
			ition assigned to the occu lity of significant uptake th		
isobutane	75-28-5	VLE_CD	1.000 ppm	PT OEL (2014-11-14)	
n-butyl acetate	123-86-4	VLE-MP	150 ppm	PT OEL (2007-03-26)	
		VLE_CD	200 ppm	PT OEL (2007-03-26)	

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		STEL	150 ppm 723 mg/m3	2019/1831/E U (2019-10-31)		
	Further info	rmation: Indicative	9	,		
		TWA	50 ppm 241 mg/m3	2019/1831/E U (2019-10-31)		
	Further info	rmation: Indicative	9			
		TWA	50 ppm 241 mg/m3	PT DL 305/2007 (2021-01-06)		
		STEL	150 ppm 723 mg/m3	PT DL 305/2007 (2021-01-06)		
acetone	67-64-1	TWA	500 ppm 1.210 mg/m3	2000/39/EC (2000-06-16)		
	Further info	rmation: Indicative	9			
		VLE-MP	500 ppm	PT OEL (2014-11-14)		
	Further info	Further information: Substances that are not classified as carcinogenic for				
		VLE_CD	750 ppm	PT OEL (2014-11-14)		
	Further info	Further information: Substances that are not classified as carcinogenic for				
		TWA	500 ppm 1.210 mg/m3	PT DL 305/2007 (2007-08-24)		

# **Biological occupational exposure limits**

Substance name	CAS-No.	Control parameters	Sampling time	Basis
reaction mass of ethylbenzene and xylene	Not Assigned	Methylhippuric acids (o, m, p): 1.5 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
zinc powder — zinc dust (stabilised)	Workers	Inhalation	Long-term systemic effects	5 mg/m3
	Workers	Skin contact	Long-term systemic effects	83 mg/kg
reaction mass of ethylbenzene and xylene	Workers	Inhalation	Long-term systemic effects	221 mg/m3
	Workers	Inhalation	Acute systemic effects	442 mg/m3
	Workers	Inhalation	Long-term local ef-	221 mg/m3



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			fects	
	Workers	Inhalation	Acute local effects	442 mg/m3
	Workers	Skin contact	Long-term systemic effects	212 mg/m3
2-methoxy-1- methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m3
	Workers	Inhalation	Long-term local ef- fects	550 mg/m3
	Workers	Skin contact	Long-term systemic effects	796 mg/kg bw/day
n-butyl acetate	Workers	Inhalation	Long-term systemic effects	300 mg/m3
	Workers	Inhalation	Acute systemic ef- fects	600 mg/m3
	Workers	Dermal	Long-term local effects	11 mg/cm2
acetone	Workers	Inhalation	Long-term systemic effects	1210 mg/m3
	Workers	Skin contact	Long-term systemic effects	186 mg/kg

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

Substance name	Environmental Compartment	Value
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 Treatment Systems	0,052 mg/l
	Soil	106,8 mg/kg
reaction mass of ethylbenzene and xylene	Fresh water	0,327 mg/l
	Marine water	0,327 mg/l
	Sewage treatment plant	6,58 mg/l
	Fresh water sediment	12,46 mg/kg
	Marine sediment	12,46 mg/kg
	Soil	2,31 mg/kg
2-methoxy-1-methylethyl acetate	Fresh water	0,635 mg/l
	Marine water	0,0635 mg/l
	Intermittent use/release	6,35 mg/l
	Microbiological Activity in Sewage Treatment Systems	100 mg/l
	Fresh water sediment	3,29 mg/kg
	Marine sediment	0,329 mg/kg
	Soil	0,29 mg/kg
n-butyl acetate	Fresh water	0,18 mg/l
	Marine water	0,018 mg/l
	Microbiological Activity in Sewage Treatment Systems	35,6 mg/l
	Fresh water sediment	0,981 mg/kg
	Marine sediment	0,0981 mg/kg

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	Soil	0,09 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

#### 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 Nitrile rubber Break through time > 10 min Protective index Class 1

Remarks Wear protective gloves. The break through time depends

> amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each

case.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374

derived from it.

Choose body protection in relation to its type, to the concen-Skin and body protection

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

cific work-place.

Use respiratory protection unless adequate local exhaust ven-Respiratory protection

tilation is provided or exposure assessment demonstrates that

exposures are within recommended exposure guidelines.

Recommended Filter type: Filter type

Organic gas and low boiling vapour type (AX)

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



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Colour : grey

Odour : characteristic

Odour Threshold : No data available

Melting point/range : No data available

Boiling point/boiling range : -41 °C (1.013 hPa)

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 : -60,00 °C

Method: Abel-Pensky, closed cup

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : Not applicable

substance/mixture is non-soluble (in water)

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : not determined

Solubility(ies)

Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Vapour pressure : 4.000 hPa (20 °C)

Relative density : 0,8 (20 °C)

Reference substance: Water The value is calculated

Density : 0,80 g/cm3

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(20 °C)

Bulk density : No data available

Relative vapour density : No data available

9.2 Other information

Explosives : Not explosive

Oxidizing properties : No data available

Self-ignition : 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.



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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 inhalation toxicity : Acute toxicity estimate: > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist 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:**

## zinc powder - zinc dust (stabilised):

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

# reaction mass of ethylbenzene and xylene:

Acute oral toxicity : LD50 (Rat): 3.523 - 4.000 mg/kg

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after

short term inhalation.

Acute dermal toxicity : Assessment: The component/mixture is moderately toxic after

single contact with skin.

## 2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 (Rat): 6.190 mg/kg

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Method: OECD Test Guideline 401

GLP: yes

Acute inhalation toxicity : LC50 (Rat): 35,7 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

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

Method: OECD Test Guideline 402

Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics:

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

Method: OECD Test Guideline 401

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

Method: OECD Test Guideline 402

n-butyl acetate:

Acute oral toxicity : LD50 (Rat): 10.768 mg/kg

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

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

GLP: ves

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rabbit): > 17.600 mg/kg

acetone:

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

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.

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#### **Components:**

# zinc powder - zinc dust (stabilised):

Species : Rabbit

Assessment : No skin irritation Result : No skin irritation

#### reaction mass of ethylbenzene and xylene:

Assessment : Irritating to skin. Result : Irritating to skin.

# 2-methoxy-1-methylethyl acetate:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : No skin irritation

GLP : yes

#### Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics:

Result : Repeated exposure may cause skin dryness or cracking.

#### n-butyl acetate:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : Repeated exposure may cause skin dryness or cracking.

acetone:

Result : Repeated exposure may cause skin dryness or cracking.

#### Serious eye damage/eye irritation

**Product:** 

Remarks : Irritating to eyes.

#### **Components:**

#### 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

## reaction mass of ethylbenzene and xylene:

Assessment : Irritating to eyes.

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



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Result : Irritating to eyes.

#### 2-methoxy-1-methylethyl acetate:

Species : Rabbit

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

GLP : yes

#### n-butyl acetate:

Species : Rabbit

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

GLP : yes

#### acetone:

Species : Rabbit Result : Eye irritation

#### Respiratory or skin sensitisation

#### **Product:**

Remarks : This information is not available.

#### Components:

# 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

#### reaction mass of ethylbenzene and xylene:

Assessment : Did not cause sensitisation on laboratory animals. Result : Did not cause sensitisation on laboratory animals.

#### 2-methoxy-1-methylethyl acetate:

Test Type : Maximisation Test

Species : Guinea pig

Assessment : Does not cause skin sensitisation.

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

GLP : yes

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



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n-butyl acetate:

Test Type : Maximisation Test

Exposure routes : Dermal Species : Guinea pig

Assessment : Does not cause skin sensitisation.

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

Germ cell mutagenicity

**Product:** 

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

**Components:** 

zinc powder — zinc dust (stabilised):

Germ cell mutagenicity- As-

sessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

2-methoxy-1-methylethyl acetate:

Germ cell mutagenicity- As-

sessment

Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Animal testing did not show any mutagenic

effects.

n-butyl acetate:

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster cells Method: OECD Test Guideline 473

Result: negative

Genotoxicity in vivo : Species: Mouse

**Application Route: Oral** 

Method: OECD Test Guideline 474

Result: negative

Germ cell mutagenicity- As-

sessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects., Animal testing did not show any mutagenic

effects.

Carcinogenicity

**Product:** 

Remarks : No data available

a brand of
FREUDENBERG

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



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# **Components:**

zinc powder — zinc dust (stabilised):

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

ment

2-methoxy-1-methylethyl acetate:

Carcinogenicity - Assess- : Not classifiable as a human carcinogen.

ment

n-butyl acetate:

Carcinogenicity - Assess- : Not classifiable as a human carcinogen.

ment

Reproductive toxicity

**Product:** 

Effects on fertility : Remarks: No data available

Effects on foetal develop-

ment

Remarks: No data available

# **Components:**

zinc powder — zinc dust (stabilised):

Reproductive toxicity - As- : - Fertility -

sessment

No toxicity to reproduction

- Teratogenicity -

No effects on or via lactation

reaction mass of ethylbenzene and xylene:

Reproductive toxicity - As- : - Fertility -

sessment Animal testing did not show any effects on fertility.

2-methoxy-1-methylethyl acetate:

Reproductive toxicity - As- : - Fertility -

sessment No toxicity to reproduction

- Teratogenicity -

No toxicity to reproduction

n-butyl acetate:

Effects on fertility : Test Type: Two-generation study

Species: Rat

Application Route: inhalation (vapour)

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



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General Toxicity - Parent: NOAEC: 750 mg/l General Toxicity F1: NOAEC: 750 mg/l General Toxicity F2: NOAEC: 750 mg/l Method: OECD Test Guideline 416

Result: Embryotoxic effects and adverse effects on the off-

spring were detected.

Reproductive toxicity - As-

sessment

: - Fertility -

No evidence of adverse effects on sexual function and fertility,

or on development, based on animal experiments.

- Teratogenicity -

No toxicity to reproduction

#### STOT - single exposure

#### **Components:**

## reaction mass of ethylbenzene and xylene:

Exposure routes : Inhalation

Target Organs : Respiratory system

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

toxicant, single exposure, category 3 with respiratory tract

irritation.

#### 2-methoxy-1-methylethyl acetate:

Exposure routes : Ingestion

Target Organs : Central nervous system

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

toxicant, single exposure, category 3 with narcotic effects.

n-butyl acetate:

Exposure routes : Inhalation

Target Organs : Central nervous system

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

toxicant, single exposure, category 3 with narcotic effects.

acetone:

Exposure routes : Inhalation

Assessment : May cause drowsiness or dizziness.

## STOT - repeated exposure

#### **Components:**

#### reaction mass of ethylbenzene and xylene:

Exposure routes : Inhalation
Target Organs : Auditory system

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

toxicant, repeated exposure, category 2.

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



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#### 2-methoxy-1-methylethyl acetate:

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

organ toxicant, repeated exposure.

n-butyl acetate:

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:**

n-butyl acetate:

Species : Rat

NOAEL : 125 mg/kg

Application Route : Oral

# **Aspiration toxicity**

# **Product:**

This information is not available.

#### **Components:**

#### zinc powder — zinc dust (stabilised):

No aspiration toxicity classification

# reaction mass of ethylbenzene and xylene:

May be fatal if swallowed and enters airways.

## 2-methoxy-1-methylethyl acetate:

No aspiration toxicity classification

# Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics:

May be fatal if swallowed and enters airways.

#### n-butyl acetate:

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: May cause long-term adverse effects in the aquatic

environment.

Toxicity to daphnia and other : Remarks: No data available

aquatic invertebrates

Toxicity to algae/aquatic

plants

Remarks: No data available

Toxicity to microorganisms

Remarks: No data available

#### **Components:**

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)



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



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M-Factor (Chronic aquatic

toxicity)

: 1

**Ecotoxicology Assessment** 

Acute aquatic toxicity : Very toxic to aquatic life.

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

reaction mass of ethylbenzene and xylene:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2,6 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 - 180

mg/l

Exposure time: 96 h Test Type: static test

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 373 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae/aguatic

plants

NOEC (Pseudokirchneriella subcapitata (green algae)): >=

1.000 mg/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Toxicity to microorganisms : EC10 (activated sludge): > 1.000 mg/l

Exposure time: 0,5 h Test Type: static test

Method: OECD Test Guideline 209

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

EC50: > 100 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: Reproduction Test Method: OECD Test Guideline 211

n-butyl acetate:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 18 mg/l

Exposure time: 96 h

Test Type: flow-through test

Method: OECD Test Guideline 203

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



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Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 44 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): 397 mg/l

Exposure time: 72 h Test Type: static test

EC50 (Tetrahymena pyriformis): 356 mg/l Toxicity to microorganisms

Exposure time: 40 h

Test Type: Growth inhibition

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

NOEC: 23 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: Reproduction Test

GLP: yes

#### 12.2 Persistence and degradability

**Product:** 

Biodegradability Remarks: No data available

Physico-chemical removabil- : Remarks: No data available

ity

#### **Components:**

reaction mass of ethylbenzene and xylene:

Biodegradability Result: rapidly biodegradable

Biodegradation: 90 % Exposure time: 28 d

2-methoxy-1-methylethyl acetate:

Biodegradability Test Type: aerobic

> Inoculum: activated sludge Result: rapidly biodegradable Biodegradation: 83 %

Exposure time: 28 d

Method: OECD Test Guideline 301F

GLP: yes

Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics:

Biodegradability Result: Not readily biodegradable.

n-butyl acetate:

Biodegradability Test Type: Primary biodegradation

Result: rapidly biodegradable

Biodegradation: 83 %

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



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Exposure time: 28 d

Method: OECD Test Guideline 301D

acetone:

Biodegradability : Result: rapidly biodegradable

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:** 

reaction mass of ethylbenzene and xylene:

Partition coefficient: n-

octanol/water

: log Pow: 3,12 - 3,2

propane:

Partition coefficient: n-

octanol/water

log Pow: 2,36

2-methoxy-1-methylethyl acetate:

Bioaccumulation : Bioconcentration factor (BCF): 3,16

Partition coefficient: n-

octanol/water

log Pow: 0,36 (25 °C)

Method: OECD Test Guideline 107

GLP: yes

Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-

octanol/water

: Remarks: No data available

n-butyl acetate:

Partition coefficient: n- : log Pow: 2,3 (25 °C)

octanol/water pH: 7

Method: OECD Test Guideline 117

GLP: yes

acetone:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n- : log Pow: 0,2

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



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log Pow: 2,89

octanol/water

butane:

Partition coefficient: n- :

octanol/water 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

0.1% or higher.

**Components:** 

2-methoxy-1-methylethyl acetate:

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

n-butyl acetate:

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

Very toxic to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.

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



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# **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

ADR : UN 1950
RID : UN 1950
IMDG : UN 1950
IATA : UN 1950

## 14.2 UN proper shipping name

ADR : AEROSOLS
RID : AEROSOLS
IMDG : AEROSOLS

(zinc powder - zinc dust (stabilized))

IATA : Aerosols, flammable

# 14.3 Transport hazard class(es)

ADR : 2
RID : 2
IMDG : 2.1
IATA : 2.1



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



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#### 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

## 14.5 Environmental hazards

**ADR** 

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

# 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.

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



Not applicable

Article 57).

Not applicable

Not applicable

Not applicable

Not applicable

acetone (ANNEX II)

This product does not contain sub-

stances of very high concern (Regu-

lation (EC) No 1907/2006 (REACH),

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# **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)

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

(EU SVHC)

REACH - List of substances subject to authorisation

(Annex XIV)

(EU. REACH-Annex XIV)

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer (EC 1005/2009)

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast) (EU POP)

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

of dangerous chemicals

(EU PIC)

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

explosives precursors

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappear-

ances and thefts should be reported to the relevant na-

tional contact point. Please see

https://ec.europa.eu/home-affairs/sites/ homeaf-

fairs/files/what-we-do/policies/crisis-and-

terrorism/explosives/explosives-

precur-

sors/docs/list\_of\_competent\_authorities\_and\_national\_c

ontact\_points\_en.pdf

: P2

P5c

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

P3a FLAMMABLE AEROSOLS

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



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stances.

E1 ENVIRONMENTAL HAZARDS

Liquefied extremely flammable gases (including LPG) and natu-

ral 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: 73,38 %

#### 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.

H225 : Highly flammable liquid and vapour.
H226 : Flammable liquid and vapour.

H280 : Contains gas under pressure; may explode if heated.

H304 : May be fatal if swallowed and enters airways.

H312 : Harmful in contact with skin.

H315 : Causes skin irritation.

H319 : Causes serious eye irritation.

H332 : Harmful if inhaled.

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

H373 : May cause damage to organs through prolonged or repeated

exposure if inhaled.

H400 : Very toxic to aquatic life.

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

EUH066 : Repeated exposure may cause skin dryness or cracking.

## Full text of other abbreviations

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



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Note C : Some organic substances may be marketed either in a specif-

ic isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the sub-

stance 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 3.1) : When put on the market gases have to be classified as "Gas-

es 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

2019/1831/EU : Europe. Commission Directive 2019/1831/EU establishing a

fifth 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 2019/1831/EU / TWA : Limit Value - eight hours 2019/1831/EU / 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 - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good La-

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



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boratory 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
Eye Irrit. 2	H319	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

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



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