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

1.1 Product identifier

Product name : OKS 2551

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

Use of the : Corrosion inhibitor

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

D-82216 Maisach-Gernlinden 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

+49 8142 3051 517 (24/7 service)

#### SECTION 2: Hazards identification

# 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Aerosols, Category 1 H222: Extremely flammable aerosol.

H229: Pressurised container: May burst if heated.

Skin irritation, Category 2 H315: Causes skin irritation.

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

Specific target organ toxicity - single exposure, Category 3, Central nervous

system

H336: May cause drowsiness or dizziness.



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Long-term (chronic) aquatic hazard,

Category 2

H411: Toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

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.

H336 May cause drowsiness or dizziness.

H411 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.

P261 Avoid breathing 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:

butanone

acetone

n-butyl acetate



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### **Additional Labelling**

#### 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.

# **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)
butanone	78-93-3 201-159-0 606-002-00-3	Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336; EUH066		>= 20 - < 30
zinc powder — zinc dust (stabilised)	7440-66-6 231-175-3 030-001-01-9	Aquatic Acute1; H400 Aquatic Chronic1; H410	M-Factor: 1/1	>= 10 - < 20
acetone	67-64-1 200-662-2 606-001-00-8	Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336		>= 10 - < 20
cyclopentanone	120-92-3 204-435-9 606-025-00-9	Flam. Liq.3; H226 Skin Irrit.2; H315 Eye Irrit.2; H319		>= 1 - < 10
n-butyl acetate	123-86-4 204-658-1	Flam. Liq.3; H226 STOT SE3; H336; EUH066		>= 1 - < 10



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	607-025-00-1			
Substances with a work	place exposure limit:			
dimethyl ether	115-10-6 204-065-8	Flam. Gas1A; H220 Press.	Note U (table	>= 30 - < 50
	603-019-00-8	GasLiquefied gas; H280	3.1)	

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.

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.

If accidentally swallowed obtain immediate medical attention.

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

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

Symptoms : Inhalation may provoke the following symptoms:

Unconsciousness

Dizziness

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Drowsiness Headache Nausea Tiredness

Skin contact may provoke the following symptoms:

Erythema

Risks : Central nervous system depression

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

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

Halogenated compounds

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 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.

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#### **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.

#### 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.



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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		
dimethyl ether	115-10-6	TWA	400 ppm	GB EH40		
			766 mg/m3	(2005-04-06)		
		STEL	500 ppm	GB EH40		
			958 mg/m3	(2005-04-06)		
		TWA	1,000 ppm	2000/39/EC		
			1,920 mg/m3	(2000-06-16)		
	Further inform	Further information: Indicative				
butanone	78-93-3	TWA	200 ppm	GB EH40		
			600 mg/m3	(2005-04-06)		
	Further inform	Further information: Can be absorbed through the skin. The assigned				
	substances a	substances are those for which there are concerns that dermal absorption will				
		lead to systemic toxicity.				
		STEL	300 ppm	GB EH40		
			899 mg/m3	(2005-04-06)		
	Further inform	Further information: Can be absorbed through the skin. The assigned				
	substances a	substances are those for which there are concerns that dermal absorption will				
	lead to systen	lead to systemic toxicity.				
		TWA	200 ppm	2000/39/EC		
			600 mg/m3	(2000-06-16)		



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	Further info	Further information: Indicative		
		STEL	300 ppm	2000/39/EC
			900 mg/m3	(2000-06-16)
	Further info	rmation: Indicativ	/e	
acetone	67-64-1	TWA	500 ppm	GB EH40
			1,210 mg/m3	(2005-04-06)
		STEL	1,500 ppm	GB EH40
			3,620 mg/m3	(2005-04-06)
		TWA	500 ppm	2000/39/EC
			1,210 mg/m3	(2000-06-16)
	Further info	Further information: Indicative		
n-butyl acetate	123-86-4	TWA	150 ppm	GB EH40
			724 mg/m3	(2005-04-06)
		STEL	200 ppm	GB EH40
			966 mg/m3	(2005-04-06)
		STEL	150 ppm	2019/1831/E
			723 mg/m3	U
				(2019-10-31)
	Further info	rmation: Indicativ	/e	· ·
		TWA	50 ppm	2019/1831/E
			241 mg/m3	U
				(2019-10-31)
	Further info	Further information: Indicative		

### **Biological occupational exposure limits**

Substance name	CAS-No.	Control parameters	Sampling time	Basis
butanone	78-93-3	butan-2-one: 70 micromol per litre (Urine)	After shift	GB EH40 BAT (2011-12- 18)

# **Derived No Effect Level (DNEL):**

Substance name	End Use	Exposure routes	Potential health effects	Value
dimethyl ether	Workers	Inhalation	Long-term exposure	1894 mg/m3
butanone	Workers	Inhalation	Long-term systemic effects	600 mg/m3
	Workers	Skin contact	Long-term systemic effects	1161 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
acetone	Workers	Inhalation	Long-term systemic effects	1210 mg/m3
	Workers	Skin contact	Long-term systemic effects	186 mg/kg
cyclopentanone	Workers	Inhalation	Long-term systemic effects	61 mg/m3
	Workers	Skin contact	Long-term systemic	7 mg/kg



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			effects	
n-butyl acetate	Workers	Inhalation	Long-term systemic effects	300 mg/m3
	Workers	Inhalation	Acute systemic effects	600 mg/m3
	Workers	Dermal	Long-term local effects	11 mg/cm2

# **Predicted No Effect Concentration (PNEC):**

Substance name	Environmental Compartment	Value
dimethyl ether	Fresh water	0.155 mg/l
	Marine water	0.016 mg/l
	Sewage treatment plant	160 mg/l
	Fresh water sediment	0.681 mg/kg
	Marine sediment	0.069 mg/kg
	Soil	0.045 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	0.052 mg/l
	Treatment Systems	_
	Soil	106.8 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
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
	Soil	0.09 mg/kg

# 8.2 Exposure controls

#### **Engineering measures**

Use only in an area equipped with explosion proof exhaust ventilation. Handle only in a place equipped with local exhaust (or other appropriate exhaust).

# Personal protective equipment

Eye/face protection : Safety glasses with side-shields

Hand protection

Material : butyl-rubber
Break through time : > 10 min
Protective index : Class 1



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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.

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.

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.

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

9.1 Information on basic physical and chemical properties

Appearance : aerosol

Colour : grey

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable

substance/mixture is non-soluble (in water)

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : -42 °C

Method: Abel-Pensky

Evaporation rate : No data available

Flammability (solid, gas) : Extremely flammable aerosol.

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Upper explosion limit / Upper

flammability limit

26.2 %(V)

Lower explosion limit / Lower :

flammability limit

1 %(V)

Vapour pressure : 3,700 hPa (20 °C)

Relative vapour density : No data available

Density : 0.92 g/cm3

(20 °C)

Bulk density : No data available

Solubility(ies)

Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : < 20.5 mm2/s (40 °C)

Explosive properties : Not explosive

Oxidizing properties : No data available

9.2 Other information

Sublimation point : No data available

Self-ignition : No data available

# **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

No hazards to be specially mentioned.



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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 toxicological effects

#### **Acute toxicity**

**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.

Harmful by inhalation.

Symptoms: Inhalation may provoke the following symptoms:, Respiratory disorder, Dizziness, Drowsiness, Vomiting, Fatigue, Vertigo, Central nervous system depression

Acute dermal toxicity : Symptoms: Redness, Local irritation

**Components:** 

butanone:

Acute oral toxicity : LD50 (Rat): 2,193 mg/kg

Method: OECD Test Guideline 423

GLP: yes

Acute inhalation toxicity : LC50 (Rat): 34 mg/l

Exposure time: 4 h

Test atmosphere: vapour

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

Method: OECD Test Guideline 402

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

toxicity

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

inhalation toxicity

acetone:

Acute oral toxicity : LD50 Oral (Rat): 5,800 mg/kg

cyclopentanone:

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg

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: yes

Assessment: The substance or mixture has no acute

inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 17,600 mg/kg

dimethyl ether:

Acute inhalation toxicity : LC50 (Rat): 309 mg/l

Exposure time: 4 h Test atmosphere: gas

Skin corrosion/irritation

**Product:** 

Result : Skin irritation

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Remarks : Irritating to skin.

**Components:** 

butanone:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : No skin irritation

Result : Repeated exposure may cause skin dryness or cracking.

zinc powder - zinc dust (stabilised):

Species : Rabbit

Assessment : No skin irritation Result : No skin irritation

cyclopentanone:

Species : Rabbit Result : Skin irritation

n-butyl acetate:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : Repeated exposure may cause skin dryness or cracking.

dimethyl ether:

Assessment : No skin irritation Result : No skin irritation

Serious eye damage/eye irritation

**Product:** 

Remarks : Irritating to eyes.

**Components:** 

butanone:

Species : Rabbit

Assessment : Irritating to eyes.

Method : OECD Test Guideline 405

Result : Irritating to eyes.

zinc powder — zinc dust (stabilised):

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Species : Rabbit Exposure time : 24 h

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

GLP : yes

acetone:

Species : Rabbit Result : Eye irritation

cyclopentanone:

Species : Rabbit Result : Eye irritation

n-butyl acetate:

Species : Rabbit

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

GLP : yes

dimethyl ether:

Assessment : No eye irritation Result : No eye irritation

# Respiratory or skin sensitisation

**Product:** 

Remarks : This information is not available.

**Components:** 

butanone:

Test Type : Buehler Test Species : Guinea pig

Assessment : Does not cause skin sensitisation.

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

GLP : yes

zinc powder — zinc dust (stabilised):

Species : Guinea pig

Assessment : Did not cause sensitisation on laboratory animals.

Method : OECD Test Guideline 406

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Result : Did not cause sensitisation on laboratory animals.

GLP : yes

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.

dimethyl ether:

Assessment : Does not cause skin sensitisation. 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:** 

butanone:

Germ cell mutagenicity-

Assessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

zinc powder — zinc dust (stabilised):

Germ cell mutagenicity-

Assessment

Tests on bacterial or mammalian cell cultures did not show

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

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Result: negative

Germ cell mutagenicity-

Assessment

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

effects.

dimethyl ether:

Genotoxicity in vitro : Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Species: Drosophila melanogaster (vinegar fly)

Application Route: inhalation (gas)
Method: OECD Test Guideline 477

Result: negative

Carcinogenicity

**Product:** 

Remarks : No data available

**Components:** 

butanone:

Carcinogenicity -Assessment : Not classifiable as a human carcinogen.

zinc powder - zinc dust (stabilised):

Carcinogenicity -

Assessment

: No evidence of carcinogenicity in animal studies.

n-butyl acetate:

Carcinogenicity -

: Not classifiable as a human carcinogen.

Assessment

dimethyl ether:

Species : Rat

Application Route : inhalation (gas)

Exposure time : 2 Years : 47 mg/l

Method : OECD Test Guideline 453

Result : negative

Reproductive toxicity

**Product:** 



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Effects on fertility : Remarks: No data available

Effects on foetal : Remarks: No data available

development

**Components:** 

**butanone:**Reproductive toxicity -

Assessment

: - Fertility -

No toxicity to reproduction

- Teratogenicity -

No effects on or via lactation

zinc powder — zinc dust (stabilised):

Reproductive toxicity - : - Fertility -

Assessment

No toxicity to reproduction

- Teratogenicity -

No effects on or via lactation

n-butyl acetate:

Effects on fertility : Test Type: Two-generation study

Species: Rat

Application Route: inhalation (vapour)
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

offspring were detected.

Reproductive toxicity -

Assessment

: - Fertility -

No evidence of adverse effects on sexual function and fertility,

or on development, based on animal experiments.

- Teratogenicity -

No toxicity to reproduction

dimethyl ether:

Reproductive toxicity -

: - Fertility -

Assessment

Animal testing did not show any effects on fertility.

STOT - single exposure

**Product:** 

Remarks : No data available

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**Components:** 

butanone:

Exposure routes : Inhalation

Target Organs : Respiratory system

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

toxicant, single exposure, category 3 with narcotic effects.,

May cause drowsiness or dizziness.

acetone:

Exposure routes : Inhalation

Assessment : May cause drowsiness or dizziness.

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.

STOT - repeated exposure

**Product:** 

Remarks : No data available

Components:

butanone:

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



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### **Aspiration toxicity**

#### **Product:**

This information is not available.

### **Components:**

#### butanone:

No aspiration toxicity classification

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

No aspiration toxicity classification

### n-butyl acetate:

No aspiration toxicity classification

### dimethyl ether:

No aspiration toxicity classification

#### **Further information**

#### **Product:**

Remarks Risks of irreversible effects after a single exposure.

Ingestion causes irritation of upper respiratory system and

gastrointestinal disturbance.

# **SECTION 12: Ecological information**

# 12.1 Toxicity

#### **Product:**

Toxicity to fish Remarks: Toxic to aquatic organisms, 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

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### 12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical

removability

: Remarks: No data available

### 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).

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.

12.6 Other adverse effects

**Product:** 

Endocrine disrupting

potential

: 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.

Additional ecological

information

: Toxic to aquatic life with long lasting effects.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758 - GB



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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



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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 : 203

(passenger 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.

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# **SECTION 15: Regulatory information**

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant EU provisions transposed through retained EU law

Not applicable UK REACH List of restrictions (Annex 17)

UK REACH Candidate list of substances of very high

concern (SVHC) for Authorisation

(UK SVHC)

This product does not contain substances of very high concern (UK: The REACH etc. (Amendment) Regulations, Article 57).

The Persistent Organic Pollutants Regulations (retained : Not applicable

Regulation (EU) 2019/1021 as amended for Great

Britain) (GB POPs)

Regulation (EC) No 1005/2009 on substances that

deplete the ozone layer

(EC 1005/2009)

: Not applicable

UK REACH List of substances subject to authorisation

(Annex XIV)

(UK. REACH Annex XIV)

Not applicable

GB Export and import of hazardous chemicals - Prior

Informed Consent (PIC) Regulation

(GB PIC)

: Not applicable

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

disappearances and thefts should be reported to the

relevant national contact point.

acetone (ANNEX II)

Control of Major Accident Hazards Regulations

2015 (COMAH)

P3a FLAMMABLE AEROSOLS

E2 **ENVIRONMENTAL HAZARDS** 

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

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emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 76.96 %

#### Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to new and expectant mothers at work contained in Regulation 16 to 18) and of the Pregnant Workers Directive 92/85/EEC.

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

### 15.2 Chemical safety assessment

This information is not available.

#### **SECTION 16: Other information**

#### **Full text of R-Phrases**

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).

### **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.

H315 : Causes skin irritation.

H319 : Causes serious eye irritation. H336 : May cause drowsiness or dizziness.

H400 : Very toxic to aquatic life.

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

#### Full text of other abbreviations



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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

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

fifth list of indicative occupational exposure limit values

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT : UK. Biological monitoring guidance values

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

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

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 - 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

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Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

#### Classification of the mixture: Classification procedure: Aerosol 1 H222, H229 Based on product data or assessment Skin Irrit. 2 H315 Based on product data or assessment Eye Irrit. 2 H319 Calculation method STOT SE 3 Calculation method H336 Aquatic Chronic 2 H411 Calculation method

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