

Article No.: ZZ649G1ALJ10 [Z] ZowoSmart®  
Print date: 25.04.2023 Revision date: 05.11.2022  
Version: 10.0000 Issue date: 05.11.2022

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

### 1.1. product identifiers

Article No. (manufacturer/supplier) ZZ649G1ALJ10  
Trade name/designation [Z] ZowoSmart®  
EffectPigment Silver

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

#### Relevant identified uses:

paint and/or paint related material  
Reserved for industrial and professional use.

### 1.3. Details of the supplier of the safety data sheet

#### supplier (manufacturer/importer/downstream user/distributor)

Berger-Zobel GmbH  
Coating Systems Telephone: +49 6359 / 8005-0  
Maybachstraße 2 Telefax: +49 6359 / 8005-170  
67269 Grünstadt

#### Department responsible for information:

Laboratory  
E-mail Sicherheitsdaten@berger-zobel.de

### 1.4. Emergency telephone number

24-hour emergency number: +49 700 24112112  
(BLG)  
24-hour emergency number in side USA: +1 872 5888271 or +11 49 700 24112112 (BLG)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

#### Hazard pictograms



Warning

#### Hazard statements

H226 Flammable liquid and vapour.  
H319 Causes serious eye irritation.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P370 + P378 In case of fire: Use extinguishing powder or sand to extinguish.  
P403 + P235 Store in a well-ventilated place. Keep cool.

#### Hazard components for labelling

not applicable

#### Supplemental hazard information

EUH208 Contains 1,2-benzisothiazol-3(2H)-one; reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1); N-(3-(trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction.

### 2.3. Other hazards

No information available.

**Other information: If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.**

## SECTION 3: Composition/information on ingredients

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### 3.2. Mixtures

#### Description

#### Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
231-072-3 7429-90-5 013-002-00-1	01-2119529243-45-XXXX aluminium powder (stabilised) Water-react. 2 H261 / Flam. Sol. 1 H228	25 - 50
200-661-7 67-63-0 603-117-00-0	01-2119457558-25-XXXX propan-2-ol Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	15 - 20
200-578-6 64-17-5 603-002-00-5	01-2119457610-43-XXXX Ethanol Flam. Liq. 2 H225	5 - 7,5
918-481-9 649-327-00-6	01-2119457273-39-XXXX Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics Asp. Tox. 1 H304 / EUH066	5 - 7,5
217-164-6 1760-24-3	01-2119970215-39-XXXX N-(3-(trimethoxysilyl)propyl)ethylenediamine Acute Tox. 4 H332 / Eye Dam. 1 H318 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411	0,5 - 1
220-120-9 2634-33-5 613-088-00-6	1,2-benzisothiazol-3(2H)-one Acute Tox. 4 H302 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / Skin Sens. 1 H317 / Aquatic Acute 1 H400 Specific concentration limit (SCL): Skin Sens. 1 H317 >= 0,05 Acute toxicity estimate (ATE): ATE (oral): 1150 mg/kg bw	< 0,1
55965-84-9 613-167-00-5	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1) Acute Tox. 2 H330 / Acute Tox. 2 H310 / Acute Tox. 3 H301 / Skin Corr. 1C H314 / Eye Dam. 1 H318 / Skin Sens. 1A H317 / Aquatic Acute 1 H400 (M = 100) / Aquatic Chronic 1 H410 (M = 100) / EUH071 Specific concentration limit (SCL): Skin Corr. 1C H314 >= 0,6 / Skin Irrit. 2 H315 >= 0,06 / Eye Dam. 1 H318 >= 0,6 / Eye Irrit. 2 H319 >= 0,06 / Skin Sens. 1A H317 >= 0,0015 Acute toxicity estimate (ATE): ATE (oral): 53 mg/kg bw / ATE (dermal): 2000 mg/kg bw / ATE (dermal): 660 mg/kg bw / ATE (inhalation, vapour): 0,33 mg/L	< 0,1

#### Additional information

Full text of classification: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

#### In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

#### Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

#### After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

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#### **Following ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

First Aid, decontamination, treatment of symptoms.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media:**

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

##### **Unsuitable extinguishing media**

strong water jet

#### **5.2. Special hazards arising from the substance or mixture**

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

#### **5.3. Advice for firefighters**

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

#### **6.3. Methods and material for containment and cleaning up**

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

#### **6.4. Reference to other sections**

Observe protective provisions (see section 7 and 8).

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advices on safe handling**

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

##### **Further information**

Vapours are heavier than air. Vapours form explosive mixtures with air.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

##### **Hints on joint storage**

Keep away from strongly acidic and alkaline materials as well as oxidizers.

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#### Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 25 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

#### 7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limit values:

aluminium powder (stabilised)  
Index No. 013-002-00-1 / EC No. 231-072-3 / CAS No. 7429-90-5

WEL, TWA: 10 mg/m<sup>3</sup>

Remark: (inhalable fraction)

WEL, TWA: 4 mg/m<sup>3</sup>

Remark: (respirable fraction)

propan-2-ol

Index No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0

WEL, TWA: 999 mg/m<sup>3</sup>; 400 ppm

WEL, STEL: 1250 mg/m<sup>3</sup>; 500 ppm

Ethanol

Index No. 603-002-00-5 / EC No. 200-578-6 / CAS No. 64-17-5

WEL, TWA: 1920 mg/m<sup>3</sup>; 1000 ppm

##### Additional information

TWA : Long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

##### DNEL:

Ethanol

Index No. 603-002-00-5 / EC No. 200-578-6 / CAS No. 64-17-5

DNEL long-term dermal (systemic), Workers: 343 mg/kg

DNEL acute inhalative (local), Workers: 1900 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Workers: 950 mg/m<sup>3</sup>

DNEL long-term dermal (systemic), Consumer: 206 mg/kg

DNEL acute inhalative (local), Consumer: 950 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Consumer: 114 mg/m<sup>3</sup>

DNEL long-term exposure oral (systemic effects), Consumer: 87 mg/kg

propan-2-ol

Index No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0

DNEL long-term dermal (systemic), Workers: 888 mg/kg bw/day

DNEL long-term inhalative (systemic), Workers: 500 mg/m<sup>3</sup>

DNEL long-term dermal (systemic), Consumer: 319 mg/kg bw/day

DNEL long-term inhalative (systemic), Consumer: 89 mg/m<sup>3</sup>

DNEL long-term exposure oral (systemic effects), Consumer: 26 mg/kg bw/day

##### PNEC:

Ethanol

Index No. 603-002-00-5 / EC No. 200-578-6 / CAS No. 64-17-5

PNEC aquatic, freshwater: 0,96 mg/L

PNEC aquatic, marine water: 0,79 mg/L

PNEC aquatic, intermittent release: 2,75 mg/L

PNEC sediment, freshwater: 3,6 mg/kg

PNEC sediment, marine water: 2,9 mg/kg

PNEC, soil: 0,63 mg/kg

PNEC sewage treatment plant (STP): 580 mg/L

propan-2-ol

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PNEC aquatic, freshwater: 140,9 mg/L  
PNEC aquatic, marine water: 140,9 mg/L  
PNEC sediment, freshwater: 552 mg/kg  
PNEC sediment, marine water: 552 mg/kg  
PNEC, soil: 28 mg/kg  
PNEC sewage treatment plant (STP): 2251 mg/L  
PNEC water, intermittent release: 140,9 mg/L

## 8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

### Personal protection equipment

#### **Respiratory protection**

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

#### **Hand protection**

For prolonged or repeated handling the following glove material must be used: Butyl caoutchouc (butyl rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

#### **Eye/face protection**

Wear closely fitting protective glasses in case of splashes.

#### **Body protection**

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

#### **Protective measures**

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

#### **Environmental exposure controls**

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

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

### 9.1. Information on basic physical and chemical properties

<b>Physical state:</b>	<b>Liquid</b>
<b>Colour:</b>	<b>silver grey</b>
<b>Odour:</b>	<b>characteristic</b>
<b>Odour threshold:</b>	<b>not applicable</b>
<b>Melting point/freezing point:</b>	<b>not applicable</b>
<b>Initial boiling point and boiling range:</b>	<b>78 °C</b> Source: Ethanol
<b>Flammability:</b>	<b>Flammable liquid and vapour.</b>
<b>Lower and upper explosion limit:</b>	
<b>Lower explosion limit:</b>	<b>2,32 Vol-%</b>
<b>Upper explosion limit:</b>	<b>15 Vol-%</b> Source: Ethanol
<b>Flash point:</b>	<b>26 °C</b>
<b>Auto-ignition temperature:</b>	<b>201 °C</b> Source: Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
<b>Decomposition temperature:</b>	<b>not applicable</b>
<b>pH at 20 °C:</b>	<b>not applicable</b>
<b>Cinematic viscosity (40°C):</b>	<b>500 mm<sup>2</sup>/s</b>

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<b>Viscosity at 20 °C:</b>	<b>&lt; 600 mPa* s</b>
<b>Solubility(ies):</b>	
<b>Water solubility at 20 °C:</b>	<b>partially soluble</b>
<b>Partition coefficient: n-octanol/water:</b>	<b>see section 12</b>
<b>Vapour pressure at 20 °C:</b>	<b>58,5 mbar</b> Method: calculated. Source: Ethanol
<b>Density and/or relative density:</b>	
<b>Density at 20 °C:</b>	<b>1,20 g/cm<sup>3</sup></b> Method: ISO 2811, part 3
<b>Relative vapour density:</b>	<b>not applicable</b>
<b>particle characteristics:</b>	<b>not applicable</b>
<b>9.2. Other information</b>	
<b>Solid content:</b>	<b>34,02 weight-%</b>
<b>solvent content:</b>	
<b>Organic solvents:</b>	<b>25 weight-%</b>
<b>Water:</b>	<b>40 weight-%</b>
<b>Solvent separation test:</b>	<b>&lt; 3 weight-% (ADR/RID)</b>

#### **SECTION 10: Stability and reactivity**

- 10.1. **Reactivity**  
No information available.
- 10.2. **Chemical stability**  
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.
- 10.3. **Possibility of hazardous reactions**  
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.
- 10.4. **Conditions to avoid**  
Hazardous decomposition byproducts may form with exposure to high temperatures.
- 10.5. **Incompatible materials**  
not applicable
- 10.6. **Hazardous decomposition products**  
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

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

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

###### **Acute toxicity**

Ethanol

oral, LD50, Rat: 5000 mg/kg

Method: OECD 401

dermal, LD50, Rabbit: > 10000 mg/kg

Method: OECD 402

propan-2-ol

oral, LD50, Rat: 4570 mg/kg

dermal, LD50, Rabbit: 13400 mg/kg

inhalative (vapours), LC50, Rat: 30 mg/L (4 h)

1,2-benzisothiazol-3(2H)-one

oral, LD50, Rat: 1150 mg/kg

dermal, LD50, Rat: > 2000 mg/kg

inhalative (vapours), LC50, Rat (4 h)

reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)

oral, LD50, Rat: 53 mg/kg

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dermal, LD50, Rat: > 2000 mg/kg  
dermal, LD50, Rabbit: 660 mg/kg  
inhalative (dust and mist), LC50, Rat: 0,33 mg/L (4 h)

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics  
oral, LD50, Rat: > 5000 mg/kg  
dermal, LD50, Rabbit: > 5000 mg/kg  
oral, LC50, Rat: > 5 mg/L  
Method: OECD 403

#### **Skin corrosion/irritation; Serious eye damage/eye irritation**

Causes serious eye irritation.

Ethanol  
eyes

propan-2-ol  
eyes  
Skin

1,2-benzisothiazol-3(2H)-one  
Skin (4 h)  
eyes

reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)  
Skin (4 h)  
eyes

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics  
eyes

#### **Respiratory or skin sensitisation**

1,2-benzisothiazol-3(2H)-one  
Skin:

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

#### **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

propan-2-ol  
Germ cell mutagenicity; Evaluation Non-mutagenic

#### **STOT-single exposure; STOT-repeated exposure**

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics  
Specific target organ toxicity (single exposure) Evaluation The substance or mixture is not rated as target-organ-toxic

#### **Aspiration hazard**

propan-2-ol  
Aspiration hazard; Evaluation While swallowing or vomiting, pulmonary aspiration may cause chemical pneumonitis, leading to death

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics  
Aspiration hazard; Evaluation May be fatal if swallowed and enters airways.

#### **Practical experience/human evidence**

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

#### **Overall assessment on CMR properties**

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

#### 11.2. Information on other hazards

##### **Endocrine disrupting properties**

No information available.

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Classification according to Regulation (EC) No 1272/2008 [CLP]  
There is no information available on the preparation itself .  
Do not allow to enter into surface water or drains.

#### 12.1. Toxicity

##### Ethanol

Fish toxicity, LC50, *Alburnus alburnus* (alburnum): 1100 mg/L (96 h)  
Daphnia toxicity, EC50, *Daphnia magna* (Big water flea) 9268 - 14221 mg/L (48 h)  
Fish toxicity, *Leuciscus idus* (golden orfe): 8150 (48 h)  
Algae toxicity, *Scenedesmus quadricauda*: 5000 (168 h)

##### propan-2-ol

Algae toxicity, EC50, *Scenedesmus subspicatus*: > 1000 mg/L (72 h)  
Algae toxicity, EC50: > 100 mg/L  
Fish toxicity, EC50: > 100 mg/L  
Daphnia toxicity, EC50: > 100 mg/L

##### 1,2-benzisothiazol-3(2H)-one

Fish toxicity, LC50, *Oncorhynchus mykiss* (Rainbow trout): 2,18 mg/L (96 h)  
Daphnia toxicity, EC50, *Daphnia magna* (Big water flea): 2,94 mg/L (48 h)  
Algae toxicity, EC50, *Pseudokirchneriella subcapitata*: 0,11 mg/L (96 h)  
Algae toxicity, EC50: 0,067 mg/L (72 h)

##### reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)

Fish toxicity, LC50, *Salmo gairdneri* : 0,22 mg/L (96 h)  
Daphnia toxicity, EC50: 0,12 mg/L (48 h)  
Algae toxicity, *Selenastrum capricornutum*: 0,025  
Bacteria toxicity, EC50, *Pseudomonas putida*: 5,7 mg/L (16 h)  
Fish toxicity, LC50, *Lepomis macrochirus* (Bluegill): 0,28 mg/L (96 h)

##### Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Fish toxicity, LL0, *Oncorhynchus mykiss* (Rainbow trout) (96 h)  
Daphnia toxicity, EL0, *Daphnia magna* (Big water flea): 1000 mg/L (48 h)  
Algae toxicity, EL0, *Pseudokirchneriella subcapitata*: 72 mg/L (72 h)

#### Long-term Ecotoxicity

##### propan-2-ol

Fish toxicity, LC50, *Pimephales promelas*: 9640 mg/L (96 h)  
Daphnia toxicity, EC50, *Daphnia magna* (Big water flea): 13299 mg/L (48 h)  
Algae toxicity, EC50, *Desmodesmus subspicatus*: > 1000 mg/L (96 h)  
Fish toxicity, LC50, *Pimephales promelas*: 11130 mg/L (96 h)

##### 1,2-benzisothiazol-3(2H)-one

activated sludge, EC20, activated sludge: 3,3 mg/L (3 h)  
Method: OECD 209

##### reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)

Fish toxicity, LC50 (96 h)

##### Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Fish toxicity, NOELR, *Oncorhynchus mykiss* (Rainbow trout): 0,1 mg/L (28 D)  
Daphnia toxicity, NOELR, *Daphnia magna* (Big water flea): 0,18 mg/L (21 D)

#### 12.2. Persistence and degradability

##### propan-2-ol

, BOD (% of COD): 62 % ; Evaluation Biodegradable.  
: 2,32 g oxigen/kg

##### 1,2-benzisothiazol-3(2H)-one

: > 90 %  
Method: OECD 303 A

#### 12.3. Bioaccumulative potential

##### propan-2-ol

Partition coefficient: n-octanol/water: -0,16

##### 1,2-benzisothiazol-3(2H)-one

Partition coefficient n-octanol / Water (log Kow): 0,7

#### 12.4. Mobility in soil



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Toxicological data are not available.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6. Endocrine disrupting properties

No information available.

#### 12.7. Other adverse effects

No information available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

##### List of proposed waste codes/waste designations in accordance with EWC

080111\* Waste paint and varnish containing organic solvents or other dangerous substances

\*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

##### Appropriate disposal / Package Recommendation

##### Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

### SECTION 14: Transport information

#### 14.1. UN number or ID number

UN 1263

#### 14.2. UN proper shipping name

Land transport (ADR/RID): Paint  
Sea transport (IMDG): PAINT  
Air transport (ICAO-TI / IATA-DGR): Paint

#### 14.3. Transport hazard class(es)

Land transport (ADR/RID): KEINE GÜTER DER KLASSE 3  
bunch > 450 l class 3  
Sea transport (IMDG)  
for packages < = 450 litres 3  
Transport in accordance with 2.3.2.5 of the IMDG Code.  
Air transport (ICAO-TI / IATA-DGR) 3

#### 14.4. Packing group

III

#### 14.5. Environmental hazards

Land transport (ADR/RID) not applicable  
Marine pollutant not applicable

#### 14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

##### Further information

##### Land transport (ADR/RID)

Tunnel restriction code D/E

##### Sea transport (IMDG)

EmS-No. F-E, S-E

#### 14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according IBC - Code.

### SECTION 15: Regulatory information

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

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### EU legislation

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]**

Category: P5c FLAMMABLE LIQUIDS

Quantity 1: 5000 t / Quantity 2: 50000 t

**Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]**

VOC-value (in g/L) ISO 11890-2: 312

VOC-value (in g/L) ASTM D2369: 599

### National regulations

#### Restrictions of occupation

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

#### Other information:

Switzerland:

Volatile organic compounds (VOC) content in percent by weight: 20

Denmark:

PR-No.:

MAL code (MAL code in mixture):

### 15.2. Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

## SECTION 16: Other information

### Full text of classification in section 3

Water-react. 2 / H261	Substances or mixtures which, in contact with water, emit flammable gases	In contact with water releases flammable gases.
Flam. Sol. 1 / H228	flammable solids	Flammable solid.
Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic organisms.
Acute Tox. 2 / H330	Acute toxicity (inhalative)	Fatal if inhaled.
Acute Tox. 2 / H310	Acute toxicity (dermal)	Fatal in contact with skin.
Acute Tox. 3 / H301	Acute toxicity (oral)	Toxic if swallowed.
Skin Corr. 1C / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Skin Sens. 1A / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 1 / H410	Hazardous to the aquatic environment	Very toxic to aquatic life with long lasting effects.

### Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3	Flammable liquids	On basis of test data.
Eye Irrit. 2	Serious eye damage/eye irritation	Calculation method.

### Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2020/878

**[Z] ZOBEL**

Coating Systems

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EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

**Further information**

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.