



## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.02.2023

Version number 3.1 (replaces version 3.0)

Revision: 07.02.2023

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

- **1.1 Product identifier**
- **Trade name:** KREUL Puffy Paint and Outliner Pen White, Sun Yellow, Pink, Sky Blue, Blue, May Green, Mademoiselle Rosé, Mint, Noble Nougat 29 ml
- **Article number:** 49801, 49803, 49806, 49811, 49812, 49815, 49825, 49826, 49827
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
Paint  
For artists and hobby user.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
C. KREUL GmbH & Co. KG  
Carl-Kreul-Straße 2  
D-91352 HALLERNDORF  
GERMANY  
Phone: + 49 (0) 9545/925 - 0  
Fax: + 49 (0) 9545/925 - 511  
info@c-kreul.de
- **Further information obtainable from:**  
Product Safety Department:  
Treiber, b.treiber@c-kreul.de
- **1.4 Emergency telephone number:**  
Phone: + 49 (0) 9545/925 - 0  
Fax: + 49 (0) 9545/925 - 511  
(Monday - Thursday 8.00 - 17.00, Friday 8.00 - 15.00)

### 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is not classified, according to the GB CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**  
EUH208 Contains 1,2-benzisothiazol-3(2H)-one, 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.  
EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture based on water, colorants, binders and additives.

- **Dangerous components:**

CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-XXXX	titanium dioxide	2.5- $<$ 5%
CAS: 57-55-6 EINECS: 200-338-0 Reg.nr.: 01-2119456809-23-XXXX	Propylene glycol substance with a Community workplace exposure limit	0- $<$ 2.5%
CAS: 2634-33-5 EINECS: 220-120-9 Index number: 613-088-00-6 Reg.nr.: 01-2120761540-60-XXXX	1,2-benzisothiazol-3(2H)-one ⚠ Acute Tox. 1, H330; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317 Specific concentration limit: Skin Sens. 1; H317: C $\geq$ 0.05 %	0.005- $<$ 0.05%

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CAS: 55965-84-9 Index number: 613-167-00-5	5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) ⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317 Specific concentration limits: Skin Corr. 1C; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 %	(Contd. of page 1) 0.00025–<0.0015%
· <b>Additional information:</b> For the wording of the listed hazard phrases refer to section 16.		

### 4 First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Wash with water and acidic soap.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Remove contact lenses.  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
If symptoms persist consult doctor.  
Rinse out mouth and then drink plenty of water.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
No special measures required.  
The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Protect from frost.  
Protect from heat and direct sunlight.
- **Storage class:** 12

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· 7.3 Specific end use(s) See chapter 1.2.

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## 8 Exposure controls/personal protection

### · 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

#### 57-55-6 Propylene glycol

WEL	Long-term value: 474* 10** mg/m <sup>3</sup> , 150* ppm *total vapour and particulates **particulates
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### · DNELs

#### 57-55-6 Propylene glycol

Inhalative	chronic - local effect	10 mg/m <sup>3</sup> /long-term (general population) 10 mg/m <sup>3</sup> /long-term (worker)
	chronic - systemic effect	50 mg/m <sup>3</sup> /long term (general population) 168 mg/m <sup>3</sup> /long-term (worker)

### · PNECs

#### 57-55-6 Propylene glycol

water	183 mg/l
freshwater	260 mg/l
marine water	26 mg/l
sewage treatment plant (STP)	20,000 mg/l
freshwater sediment	572 mg/kg
marine sediment	57.2 mg/kg
soil	50 mg/kg

· **Additional information:** The lists valid during the making were used as basis.

### · 8.2 Exposure controls

· **Appropriate engineering controls** No further data; see item 7.· **Individual protection measures, such as personal protective equipment**· **General protective and hygienic measures:**

Do not eat, drink, smoke or sniff while working.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

· **Respiratory protection:** Not required.· **Hand protection**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection** Goggles recommended during refilling

## 9 Physical and chemical properties

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

#### · General Information

· **Physical state**

Fluid

· **Colour:**

According to product specification

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Undetermined.

· **Boiling point or initial boiling point and boiling range**

100 °C (7732-18-5 water, distilled, conductivity or of similar purity)

· **Flammability**

Not applicable.

· **Lower and upper explosion limit**· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

&gt;100 °C

· **Decomposition temperature:**

Not determined.

· **pH at 20 °C**

6-9

· **Viscosity:**· **Kinematic viscosity**

Not determined.

· **Dynamic:**

Not determined.

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· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.1–1.2 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.

· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

## 10 Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

### · LD/LC50 values relevant for classification:

#### 13463-67-7 titanium dioxide

Oral	LD50	>20,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)
Inhalative	LC50/4h	>6.82 mg/m <sup>3</sup> (rat)

#### 57-55-6 Propylene glycol

Oral	LD50	22,000 mg/kg (rat) (ECHA)
Dermal	LD50	>2,000 mg/kg (rabbit) (ECHA)

#### 2634-33-5 1,2-benzisothiazol-3(2H)-one

Oral	LD50	490 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4h	0.05 mg/m <sup>3</sup> (ATE)

#### 55965-84-9 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Oral	LD50	64 mg/kg (rat)
Dermal	LD50	87 mg/kg (rab)
Inhalative	LC50/4h	0.05 mg/m <sup>3</sup> (ATE)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

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- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### 11.2 Information on other hazards

#### · Endocrine disrupting properties

None of the ingredients is listed.

## 12 Ecological information

### · 12.1 Toxicity

#### · Aquatic toxicity:

##### 13463-67-7 titanium dioxide

EC50	>100 mg/l (pseudokirchneriella subcapitata) (OECD 201)
	>10,000 mg/l (skeletonema costatum) (ISO 10253)
NOEC	>100,000 mg/l (hyalella azteca) (ASTM 1706)
LC50	>10,000 mg/l (acartia tonsa) (ISO 14669 (1999) ISO 5667-16 (1998))
	>1,000 mg/l (daphnia magna) (OECD 202)
	>1,000 mg/l (pimephales promelas) (EPA-540/9-85-006)

##### 57-55-6 Propylene glycol

LC50/96h	40,613 mg/l (oncorhynchus mykiss) (ECHA)
LC50/48h	18,340 mg/l (ceriodaphnia dubia) (ECHA)
ErC50/72h	19,300 mg/l (skeletonema costatum) (ECHA)
NOEC/18h	>20,000 mg/l (pseudomonas putida) (ECHA)
NOEC/7d	13,020 mg/l (ceriodaphnia dubia) (ECHA)
NOEC/14d	<5,300 mg/l (skeletonema costatum) (ECHA)

##### 2634-33-5 1,2-benzisothiazol-3(2H)-one

LC50/96h	1.6 mg/l (oncorhynchus mykiss)
EC50/48h	2.94 mg/l (daphnia magna)
EC50/72h	0.11 mg/l (selenastrum capricornutum)
EC10/72h	0.04 mg/l (selenastrum capricornutum)
ErC50/72h	0.11 mg/l (pseudokirchneriella subcapitata)
NOEC/21d	1.2 mg/l (daphnia)
NOEC/72h	0.027 mg/l (skeletonema costatum)
NOEC/28d	0.21 mg/l (oncorhynchus mykiss)

##### 55965-84-9 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

LC50/96h	0.22 mg/l (oncorhynchus mykiss) (RAC)
EC50/48h	0.1 mg/l (daphnia magna)
EC50/72h	0.048 mg/l (pseudokirchneriella subcapitata)
NOEC	0.004 mg/l (daphnia magna) (OECD 211)
ErC50	0.0049 mg/l /120h (skeletonema costatum)
NOEC/21d	0.004 mg/l (daphnia)
NOEC/48d	0.00064 mg/l (skeletonema costatum)
NOEC/72h	0.0012 mg/l (pseudokirchneriella subcapitata) (OECD 201)
NOEC/28d	0.098 mg/l (oncorhynchus mykiss) (OECD 210)

### · 12.2 Persistence and degradability

#### 57-55-6 Propylene glycol

Carbon dioxide production	81.7 % /28d (OECD 301 F)
DOC removal	98.3 % /28d (OECD 301 F)
Oxygen consumption	106.8 % /28d (OECD 301 F)

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

### · 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

### · 12.7 Other adverse effects

#### · Additional ecological information:

#### · General notes:

Pluster &amp; Liner Pen White, Sun Yellow, May Green:

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Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Smaller quantities can be disposed of with household waste.  
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- |   |                 |
|---|-----------------|
| · <b>14.1 UN number or ID number</b><br>· <b>ADR, IMDG, IATA</b>                            | not regulated   |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR, IMDG, IATA</b>                           | not regulated   |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Class</b> | not regulated   |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>                                     | not regulated   |
| · <b>14.5 Environmental hazards:</b>  | Not applicable. |
| · <b>14.6 Special precautions for user</b>  | Not applicable. |
| · <b>14.7 Maritime transport in bulk according to IMO instruments</b>                       | Not applicable. |
| · <b>UN "Model Regulation":</b>   | not regulated   |

### 15 Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**  
H301 Toxic if swallowed.  
H302 Harmful if swallowed.  
H310 Fatal in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H330 Fatal if inhaled.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.
- **Department issuing SDS:** Product Safety Department
- **Contact:** B. Treiber, b.treiber@c-kreul.de
- **Abbreviations and acronyms:**  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DNEL: Derived No-Effect Level (UK REACH)  
PNEC: Predicted No-Effect Concentration (UK REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

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Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Acute Tox. 2: Acute toxicity – Category 2  
Acute Tox. 1: Acute toxicity – Category 1  
Skin Corr. 1C: Skin corrosion/irritation – Category 1C  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Skin Sens. 1: Skin sensitisation – Category 1  
Skin Sens. 1A: Skin sensitisation – Category 1A  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· \* **Data compared to the previous version altered.**

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

- **1.1 Product identifier**
- **Trade name:** KREUL Puffy Paint and Outliner Pen Strawberry, Ruby Red, Black, Glow-in-the-dark-yellow, Neon Light, Neon Orange, Neon Pink, White Cotton 29 ml
- **Article number:** 49807, 49808, 49819, 49820, 49821, 49822, 49823, 49824
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
Paint  
For artists and hobby user.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
C. KREUL GmbH & Co. KG  
Carl-Kreul-Straße 2  
D-91352 HALLERNDORF  
GERMANY  
Phone: + 49 (0) 9545/925 - 0  
Fax: + 49 (0) 9545/925 - 511  
info@c-kreul.de
- **Further information obtainable from:**  
Product Safety Department:  
Treiber, b.treiber@c-kreul.de
- **1.4 Emergency telephone number:**  
Phone: + 49 (0) 9545/925 - 0  
Fax: + 49 (0) 9545/925 - 511  
(Monday - Thursday 8.00 - 17.00, Friday 8.00 - 15.00)

### 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is not classified, according to the GB CLP regulation.

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- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**  
EUH208 Contains 1,2-benzisothiazol-3(2H)-one, 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture based on water, colorants, binders and additives.

- **Dangerous components:**

CAS: 57-55-6 EINECS: 200-338-0 Reg.nr.: 01-2119456809-23-XXXX	Propylene glycol substance with a Community workplace exposure limit	0.5-<2.5%
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CAS: 2634-33-5 EINECS: 220-120-9 Index number: 613-088-00-6 Reg.nr.: 01-2120761540-60-XXXX	1,2-benzisothiazol-3(2H)-one ⚠ Acute Tox. 1, H330; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317 Specific concentration limit: Skin Sens. 1; H317: C ≥ 0.05 %	0.005-<0.05%
CAS: 55965-84-9 Index number: 613-167-00-5	5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) ⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317 Specific concentration limits: Skin Corr. 1C; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 %	0.00025-<0.0015%
· <b>Additional information:</b> For the wording of the listed hazard phrases refer to section 16.		

### 4 First aid measures

#### · 4.1 Description of first aid measures

- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Wash with water and acidic soap.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Remove contact lenses.  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
If symptoms persist consult doctor.  
Rinse out mouth and then drink plenty of water.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

#### · 5.1 Extinguishing media

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

#### · 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

#### · 5.3 Advice for firefighters

· **Protective equipment:** Wear self-contained respiratory protective device.

· **Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Not required.

#### · 6.2 Environmental precautions:

Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.

#### · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of the material collected according to regulations.

#### · 6.4 Reference to other sections

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

· **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.

#### · Information about fire - and explosion protection:

No special measures required.  
The product is not flammable.

#### · 7.2 Conditions for safe storage, including any incompatibilities

##### · Storage:

· **Requirements to be met by storerooms and receptacles:** No special requirements.  
· **Information about storage in one common storage facility:** Not required.

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### Further information about storage conditions:

- Protect from frost.
- Protect from heat and direct sunlight.
- **Storage class:** 12
- **7.3 Specific end use(s)** See chapter 1.2.

## 8 Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with limit values that require monitoring at the workplace:

##### 57-55-6 Propylene glycol

WEL	Long-term value: 474* 10** mg/m <sup>3</sup> , 150* ppm *total vapour and particulates **particulates
-----	--

#### DNELs

##### 57-55-6 Propylene glycol

Inhalative	chronic - local effect	10 mg/m <sup>3</sup> /long-term (general population) 10 mg/m <sup>3</sup> /long-term (worker)
	chronic - systemic effect	50 mg/m <sup>3</sup> /long term (general population) 168 mg/m <sup>3</sup> /long-term (worker)

#### PNECs

##### 57-55-6 Propylene glycol

water	183 mg/l
freshwater	260 mg/l
marine water	26 mg/l
sewage treatment plant (STP)	20,000 mg/l
freshwater sediment	572 mg/kg
marine sediment	57.2 mg/kg
soil	50 mg/kg

· **Additional information:** The lists valid during the making were used as basis.

### 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
  - Do not eat, drink, smoke or sniff while working.
  - Avoid contact with the eyes and skin.
  - Do not inhale gases / fumes / aerosols.
  - Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Hand protection**
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye/face protection** Goggles recommended during refilling

## 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

- |   |  |
|---|--|
| · <b>Physical state</b>   | Fluid  |
| · <b>Colour:</b>  | According to product specification                                     |
| · <b>Odour:</b>   | Characteristic   |
| · <b>Odour threshold:</b>   | Not determined.  |
| · <b>Melting point/freezing point:</b>                            | Undetermined.  |
| · <b>Boiling point or initial boiling point and boiling range</b> | 100 °C (7732-18-5 water, distilled, conductivity or of similar purity) |
| · <b>Flammability</b>   | Not applicable.  |
| · <b>Lower and upper explosion limit</b>                          |  |
| · <b>Lower:</b>   | Not determined.  |
| · <b>Upper:</b>   | Not determined.  |
| · <b>Flash point:</b>   | >100 °C  |
| · <b>Decomposition temperature:</b>                               | Not determined.  |

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· pH at 20 °C	6–9
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Fully miscible.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	1.1–1.2 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.

· <b>9.2 Other information</b>	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Change in condition	
· Evaporation rate	Not determined.

· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

## 10 Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

### · LD/LC50 values relevant for classification:

#### 57-55-6 Propylene glycol

Oral	LD50	22,000 mg/kg (rat) (ECHA)
Dermal	LD50	>2,000 mg/kg (rabbit) (ECHA)

#### 2634-33-5 1,2-benzisothiazol-3(2H)-one

Oral	LD50	490 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4h	0.05 mg/m <sup>3</sup> (ATE)

#### 55965-84-9 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Oral	LD50	64 mg/kg (rat)
Dermal	LD50	87 mg/kg (rab)
Inhalative	LC50/4h	0.05 mg/m <sup>3</sup> (ATE)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

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- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### · 11.2 Information on other hazards

#### · Endocrine disrupting properties

None of the ingredients is listed.

## 12 Ecological information

### · 12.1 Toxicity

#### · Aquatic toxicity:

##### 57-55-6 Propylene glycol

LC50/96h	40,613 mg/l (oncorhynchus mykiss) (ECHA)
LC50/48h	18,340 mg/l (ceriodaphnia dubia) (ECHA)
ErC50/72h	19,300 mg/l (skeletonema costatum) (ECHA)
NOEC/18h	>20,000 mg/l (pseudomonas putida) (ECHA)
NOEC/7d	13,020 mg/l (ceriodaphnia dubia) (ECHA)
NOEC/14d	<5,300 mg/l (skeletonema costatum) (ECHA)

##### 2634-33-5 1,2-benzisothiazol-3(2H)-one

LC50/96h	1.6 mg/l (oncorhynchus mykiss)
EC50/48h	2.94 mg/l (daphnia magna)
EC50/72h	0.11 mg/l (selenastrum capricornutum)
EC10/72h	0.04 mg/l (selenastrum capricornutum)
ErC50/72h	0.11 mg/l (pseudokirchneriella subcapitata)
NOEC/21d	1.2 mg/l (daphnia)
NOEC/72h	0.027 mg/l (skeletonema costatum)
NOEC/28d	0.21 mg/l (oncorhynchus mykiss)

##### 55965-84-9 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

LC50/96h	0.22 mg/l (oncorhynchus mykiss) (RAC)
EC50/48h	0.1 mg/l (daphnia magna)
EC50/72h	0.048 mg/l (pseudokirchneriella subcapitata)
NOEC	0.004 mg/l (daphnia magna) (OECD 211)
ErC50	0.0049 mg/l /120h (skeletonema costatum)
NOEC/21d	0.004 mg/l (daphnia)
NOEC/48d	0.00064 mg/l (skeletonema costatum)
NOEC/72h	0.0012 mg/l (pseudokirchneriella subcapitata) (OECD 201)
NOEC/28d	0.098 mg/l (oncorhynchus mykiss) (OECD 210)

### · 12.2 Persistence and degradability

##### 57-55-6 Propylene glycol

Carbon dioxide production	81.7 % /28d (OECD 301 F)
DOC removal	98.3 % /28d (OECD 301 F)
Oxygen consumption	106.8 % /28d (OECD 301 F)

### · 12.3 Bioaccumulative potential

No further relevant information available.

### · 12.4 Mobility in soil

No further relevant information available.

### · 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.· **vPvB:** Not applicable.

### · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

### · 12.7 Other adverse effects

#### · Additional ecological information:

#### · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 13 Disposal considerations

### · 13.1 Waste treatment methods

#### · Recommendation

Smaller quantities can be disposed of with household waste.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- |   |                 |
|---|-----------------|
| · <b>14.1 UN number or ID number</b><br>· <b>ADR, IMDG, IATA</b>                            | not regulated   |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR, IMDG, IATA</b>                           | not regulated   |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Class</b> | not regulated   |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>                                     | not regulated   |
| · <b>14.5 Environmental hazards:</b>  | Not applicable. |
| · <b>14.6 Special precautions for user</b>  | Not applicable. |
| · <b>14.7 Maritime transport in bulk according to IMO instruments</b>                       | Not applicable. |
| · <b>UN "Model Regulation":</b>   | not regulated   |

### 15 Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H310 Fatal in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H330 Fatal if inhaled.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.

- **Department issuing SDS:** Product Safety Department

- **Contact:** B. Treiber, b.treiber@c-kreul.de

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 DNEL: Derived No-Effect Level (UK REACH)  
 PNEC: Predicted No-Effect Concentration (UK REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Acute Tox. 3: Acute toxicity – Category 3  
 Acute Tox. 4: Acute toxicity – Category 4  
 Acute Tox. 2: Acute toxicity – Category 2  
 Acute Tox. 1: Acute toxicity – Category 1  
 Skin Corr. 1C: Skin corrosion/irritation – Category 1C  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
 Skin Sens. 1: Skin sensitisation – Category 1  
 Skin Sens. 1A: Skin sensitisation – Category 1A  
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1  
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- **\* Data compared to the previous version altered.**