

## Safety data sheet according to UK REACH

Printing date 21.11.2024

Version number 1.2 (replaces version 1.1)

Revision: 21.11.2024

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

- **1.1 Product identifier**
- **Trade name:**  
**KREUL Black Marker 4er Set**  
**KREUL Black Marker fine 0,8 mm**  
**KREUL Black Marker medium 1-2 mm**  
**KREUL Black Marker calligraphy 0,5-3,5 mm**  
**KREUL Black Marker brush**  
**(Safety data sheet for the included ink.)**
- **Article number:** 18170, 18171, 18172, 18173, 18174, 181760
- **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:** + 44 (0) 171 635 91 91

### 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**

EC Regulation 1907/2006 (UK REACH) differentiates between substances, mixtures and articles. In accordance with the definition of articles in UK REACH, the European Writing Instrument Manufacturer's Association (EWIMA) considers writing instruments, marker pens etc. to be articles. However, no safety data sheets are provided for articles. In contrast, safety data sheets are mandatory for substances and mixtures. For this reason, the information in the safety data sheet provided always refers to the basic ink and not to the product as a whole.

- **Labelling according to Regulation (EC) No 1272/2008**  
 The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



- **Signal word** Warning

- **Hazard-determining components of labelling:**

MIT (2-methylisothiazol-3(2H)-one)

OIT (2-octyl-2H-isothiazol-3-one)

C(M)IT/MIT (3:1) (reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC No 220-239-6] (3:1))

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

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### · Hazard statements

H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects.

### · Precautionary statements

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P280 Wear protective gloves.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:** Contains preservatives.

### · 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 of substances listed below with nonhazardous additions.

#### · Dangerous components:

CAS: 2682-20-4 EINECS: 220-239-6 Index number: 613-326-00-9	MIT (2-methylisothiazol-3(2H)-one) ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; ⚠ Skin Sens. 1A, H317, EUH071 Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.0015 %	0.0015-<0.025%
CAS: 2634-33-5 EINECS: 220-120-9 Index number: 613-088-00-6 Reg.nr.: 01-2120761540-60-XXXX	BIT (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 ATE: LD50 oral: 450 mg/kg LC50/4h inhalative: 0.21 mg/m <sup>3</sup> Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.036 %	0.0050-<0.050%
CAS: 26530-20-1 EINECS: 247-761-7 Index number: 613-112-00-5	OIT (2-octyl-2H-isothiazol-3-one) ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; ⚠ Skin Corr. 1, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317, EUH071 ATE: LD50 oral: 125 mg/kg LD50 dermal: 311 mg/kg LC50/4h inhalative: 0.27 mg/m <sup>3</sup> Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.0015 %	0.0015-<0.025%
CAS: 55965-84-9 Index number: 613-167-00-5	C(M)IT/MIT (3:1) (reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC No 220-239-6] (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, EUH071 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%

· **Additional information:** 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:** Immediately remove any clothing soiled by the product.

· **After inhalation:** Not applicable.

#### · **After skin contact:**

If skin irritation continues, consult a doctor.  
Immediately wash with water and soap and rinse thoroughly.

#### · **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.

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

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## 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:** No special measures required.
- **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:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Dispose of the material collected according to regulations.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.
- **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.
- **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:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
Do not eat, drink, smoke or sniff while working.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Hand protection**



Protective gloves

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.

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- **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.
- **For the permanent contact gloves made of the following materials are suitable:**  
Butyl rubber, BR  
Recommended thickness of the material:  $\geq 0.4$  mm  
Value for the permeation: Level  $\leq 8$  h
- **As protection from splashes gloves made of the following materials are suitable:**  
Butyl rubber, BR  
Recommended thickness of the material:  $\geq 0.4$  mm  
Value for the permeation: Level  $\leq 8$  h
- **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>	Black
· <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>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH at 20 °C</b>	8.3
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	23 hPa (7732-18-5 water, distilled, conductivity or of similar purity)
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	$\sim 1.03$ g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

### 9.2 Other information

· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Solvent content:</b>	
· <b>Water:</b>	63.6 %
· <b>VOC (EC)</b>	0.00 %
· <b>Solids content:</b>	6.1 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.

### Information with regard to physical hazard classes

· <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

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· 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:

##### 2682-20-4 MIT (2-methylisothiazol-3(2H)-one)

Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)

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

Oral	LD50	450 mg/kg (ATE) 490 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4h	0.21 mg/m <sup>3</sup> (ATE)

##### 26530-20-1 OIT (2-octyl-2H-isothiazol-3-one)

Oral	LD50	125 mg/kg (ATE) 760 mg/kg (rat)
Dermal	LD50	311 mg/kg (ATE) 690 mg/kg (rab)
Inhalative	LC50/4h	0.27 mg/m <sup>3</sup> (ATE) 1.25 mg/m <sup>3</sup> (rat)

##### 55965-84-9 C(M)IT/MIT (3:1) (reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC No 220-239-6] (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)

- **Primary irritant effect:**
- **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.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **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:

##### 2634-33-5 BIT (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)

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**26530-20-1 OIT (2-octyl-2H-isothiazol-3-one)**

LC50/96h 0.047 mg/l (oncorhynchus mykiss)

EC50/48h 0.32 mg/l (daphnia magna)

**55965-84-9 C(M)IT/MIT (3:1) (reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC No 220-239-6] (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** No further relevant information available.
- **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**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**  
Harmful to aquatic organisms  
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** Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **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>                                  |                 |
| · <b>ADR, IMDG, IATA</b>  | not regulated   |
| <b>14.2 UN proper shipping name</b>                                 |                 |
| · <b>ADR, IMDG, IATA</b>  | not regulated   |
| <b>14.3 Transport hazard class(es)</b>                              |                 |
| · <b>ADR, ADN, IMDG, IATA</b>                                       |                 |
| · <b>Class</b>  | not regulated   |
| <b>14.4 Packing group</b>   |                 |
| · <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**
- **Poisons Act**

**Regulated explosives precursors**

None of the ingredients is listed.

**Regulated poisons**

None of the ingredients is listed.

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· <b>Reportable explosives precursors</b>
None of the ingredients is listed.
· <b>Reportable poisons</b>
None of the ingredients is listed.

· **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.  
 H311 Toxic 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.  
 H319 Causes serious eye irritation.  
 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.  
 EUH071 Corrosive to the respiratory tract.

· **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)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 ATE: Acute toxicity estimate values  
 Acute Tox. 3: Acute toxicity – Category 3  
 Acute Tox. 4: Acute toxicity – Category 4  
 Acute Tox. 1: Acute toxicity – Category 1  
 Acute Tox. 2: Acute toxicity – Category 2  
 Skin Corr. 1: Skin corrosion/irritation – Category 1  
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
 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  
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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

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