

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 10.06.2020

Version number 1.1

Revision: 10.06.2020

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

· **1.1 Product identifier**

· **Trade name:**

**KREUL Permanent Marker medium Green**  
**KREUL Permanent Marker fine Green**  
**KREUL Permanent Marker edge Green**  
**(Safety data sheet for the included ink.)**

· **Article number:** 47614, 47814, 47714

· **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

DEUTSCHLAND

Tel. + 49 (0)9545 / 925 - 0

Fax + 49 (0)9545 / 925 - 511

E-Mail: 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**



GHS02 flame

Flam. Liq. 2      H225    Highly flammable liquid and vapour.



GHS08 health hazard

Repr. 2      H361d    Suspected of damaging the unborn child.



GHS05 corrosion

Eye Dam. 1      H318    Causes serious eye damage.



GHS09 environment

Aquatic Chronic 2    H411    Toxic to aquatic life with long lasting effects.



GHS07

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

STOT SE 3      H336    May cause drowsiness or dizziness.

· **2.2 Label elements**

EC Regulation 1907/2006 (REACH) differentiates between substances, mixtures and articles. In accordance with the definition of articles in 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

(Contd. on page 2)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 10.06.2020

Version number 1.1

Revision: 10.06.2020

(Contd. of page 1)

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 CLP regulation.

· **Hazard pictograms**



GHS02

GHS05

GHS07

GHS08

GHS09

· **Signal word** Danger

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

malachite green hydrochloride  
1-methoxy-2-propanol  
Parfum (for industrial use only)

· **Hazard statements**

H225 Highly flammable liquid and vapour.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H361d Suspected of damaging the unborn child.  
H336 May cause drowsiness or dizziness.  
H411 Toxic 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.  
P103 Read label before use.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P243 Take action to prevent static discharges.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P321 Specific treatment (see on this label).  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

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

### 3 Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43-XXXX	ethanol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319	50-<100%
CAS: 107-98-2 EINECS: 203-539-1 Index number: 603-064-00-3	1-methoxy-2-propanol ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	10-<25%
CAS: 569-64-2 EINECS: 209-322-8 Index number: 602-096-00-5	malachite green hydrochloride ⚠ Repr. 2, H361d; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302	2.5-<10%
	Preparation from metal complex dyes ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	2.5-<10%
	Parfum (for industrial use only) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	<2.5%

· **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.

(Contd. on page 3)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 10.06.2020

Version number 1.1

Revision: 10.06.2020

(Contd. of page 2)

- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Remove contact lenses.  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **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:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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**  
Wear protective equipment. Keep unprotected persons away.
- **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:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralising agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** See chapter 1.2.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

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

**64-17-5 ethanol**

WEL | Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

(Contd. on page 4)

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.06.2020

Version number 1.1

Revision: 10.06.2020

(Contd. of page 3)

**107-98-2 1-methoxy-2-propanol**

WEL	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm
	Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
Sk	

· **DNELs****64-17-5 ethanol**

Oral	long-term exposure-systemic effects	87 mg/kg (general population)
Dermal	long-term exposure-systemic effects	206 mg/kg bw/d (general population) 343 mg/kg bw/d (worker)
Inhalative	long-term exposure-systemic effects	114 mg/m <sup>3</sup> (general population) 950 mg/m <sup>3</sup> (worker)

**107-98-2 1-methoxy-2-propanol**

Oral	long-term exposure-systemic effects	33 mg/kg (general population)
Dermal	long-term exposure-systemic effects	183 mg/kg bw/d (general population) 78 mg/kg bw/d (worker)
Inhalative	long-term exposure-systemic effects	43.9 mg/m <sup>3</sup> (general population) 369 mg/m <sup>3</sup> (worker)

· **PNECs****64-17-5 ethanol**

water	2.75 mg/l
freshwater	0.96 mg/l
marine water	0.79 mg/l
sewage treatment plant (STP)	580 mg/l
freshwater sediment	3.6 mg/kg
soil	0.63 mg/kg

**107-98-2 1-methoxy-2-propanol**

water	100 mg/l
freshwater	10 mg/l
marine water	1 mg/l
sewage treatment plant (STP)	100 mg/l
freshwater sediment	52.3 mg/kg
marine sediment	5.2 mg/kg

· **Additional information:** The lists valid during the making were used as basis.· **8.2 Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.

· **Respiratory protection:**

Not necessary if room is well-ventilated.  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

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.

· **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  $\leq 4$ h

(Contd. on page 5)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 10.06.2020

Version number 1.1

Revision: 10.06.2020

## · Eye protection:

(Contd. of page 4)



Tightly sealed goggles

### 9 Physical and chemical properties

## · 9.1 Information on basic physical and chemical properties

## · General Information

## · Appearance:

· Form:	Fluid
· Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value: Not determined.

## · Change in condition

· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	78 °C

· Flash point: 13 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 270 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

## · Explosion limits:

· Lower:	2.3 Vol %
· Upper:	20 Vol %

· Vapour pressure at 20 °C: 59 hPa

· Density at 20 °C: 0.9 g/cm<sup>3</sup>

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water: Not miscible or difficult to mix.

· Partition coefficient: n-octanol/water: Not determined.

## · Viscosity:

· Dynamic:	Not determined.
· Kinematic:	Not determined.

## · Solvent content:

· Organic solvents: &lt;90 %

· 9.2 Other information: No further relevant information available.

### 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 toxicological effects

· Acute toxicity: Based on available data, the classification criteria are not met.

## · LD/LC50 values relevant for classification:

## ATE (Acute Toxicity Estimates)

Oral	LD50	5,000–20,000 mg/kg
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(Contd. on page 6)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.06.2020

Version number 1.1

Revision: 10.06.2020

(Contd. of page 5)

**64-17-5 ethanol**

Oral	LD50	7,060 mg/kg (rat)
Dermal	LD50	12,800 mg/kg (rabbit)
Inhalative	LC50/4h	20,000 mg/m <sup>3</sup> (rat)

**107-98-2 1-methoxy-2-propanol**

Oral	LD50	5,660 mg/kg (rat)
Dermal	LD50	13,000 mg/kg (rabbit)

**569-64-2 malachite green hydrochloride**

Oral	LD50	500 mg/kg (ATE)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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**  
Suspected of damaging the unborn child.
- **STOT-single exposure**  
May cause drowsiness or dizziness.
- **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.

**12 Ecological information**· **12.1 Toxicity**· **Aquatic toxicity:****64-17-5 ethanol**

LC50/96h	11,000 mg/l (fish)
LC50/48h	5,012 mg/l (daphnia)
EC50/48h	9,950 mg/l (crustaceans)

- **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.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

**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.

· **European waste catalogue**

08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
15 01 02	plastic packaging
HP3	Flammable
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP10	Toxic for reproduction
HP14	Ecotoxic

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

GB  
(Contd. on page 7)

# Safety data sheet

according to 1907/2006/EC, Article 31




Printing date 10.06.2020

Version number 1.1

Revision: 10.06.2020

(Contd. of page 6)

## 14 Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN1263
· 14.2 UN proper shipping name · ADR · IMDG · IATA	1263 PAINT, ENVIRONMENTALLY HAZARDOUS PAINT (malachite green hydrochloride, Preparation from metal complex dyes), MARINE POLLUTANT PAINT
· 14.3 Transport hazard class(es) · ADR, IMDG	 
· Class · Label	3 Flammable liquids. 3
· IATA	
· Class · Label	3 Flammable liquids. 3
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR):	Product contains environmentally hazardous substances: malachite green hydrochloride Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Flammable liquids. 33 F-E,S-E B
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category · Tunnel restriction code	2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1263 PAINT, 3, II, ENVIRONMENTALLY HAZARDOUS

## 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.
- Seveso category  
E2 Hazardous to the Aquatic Environment  
P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

GB  
(Contd. on page 8)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 10.06.2020

Version number 1.1

Revision: 10.06.2020

(Contd. of page 7)

### 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**

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H361d Suspected of damaging the unborn child.
- 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 européen sur le transport 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 (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity - oral – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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

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