Diese Datei enthält die Sicherheitsdatenblätter zu allen Farbtönen, Sets und Displays der KREUL Lack Marker. Sie enthält Bestandteile mit unterschiedlicher Kennzeichnung. Die Erstellung eines gemeinsamen Sicherheitsdatenblattes ist daher nicht möglich. Deshalb finden sich im Anhang die Sicherheitsdatenblätter zu den einzelnen Bestandteilen.

This file contains the safety data sheets for all colors, sets and displays of the KREUL Gloss Paint Marker. It contains components with different labels. It is therefore not possible to create a unique safety data sheet. The safety data sheets for the individual components can be found in the appendix.

Folgende Sets und Displays sind enthalten / Following sets and displays are included:

Artikelnummer / Article number	47001
Handelsname / Trade name	KREUL Lack Marker medium 2er Set /
	KREUL Gloss Paint Marker medium Set of 2

<u>Bestandteile / Components:</u> KREUL Lack Marker medium Weiß / KREUL Gloss Paint Marker medium White KREUL Lack Marker medium Schwarz / KREUL Gloss Paint Marker medium Black

Artikelnummer / Article number	47002
Handelsname / Trade name	KREUL Lack Marker medium 4er Set /
	KREUL Gloss Paint Marker medium Set of 4

Bestandteile / Components:

KREUL Lack Marker medium Gold / KREUL Gloss Paint Marker medium Gold KREUL Lack Marker medium Silber / KREUL Gloss Paint Marker medium Silver KREUL Lack Marker medium Weiß / KREUL Gloss Paint Marker medium White KREUL Lack Marker medium Schwarz / KREUL Gloss Paint Marker medium Black

Artikelnummer / Article number	470100
Handelsname / Trade name	KREUL Lack Marker Thekendisplay /
	KREUL Gloss Paint Marker counter sales display

Bestandteile / Components:

KREUL Lack Marker medium Weiß / KREUL Gloss Paint Marker medium White KREUL Lack Marker medium Schwarz / KREUL Gloss Paint Marker medium Black KREUL Lack Marker medium Gold / KREUL Gloss Paint Marker medium Gold KREUL Lack Marker medium Silber / KREUL Gloss Paint Marker medium Silver KREUL Lack Marker medium Rot / KREUL Gloss Paint Marker medium Red KREUL Lack Marker fine Weiß / KREUL Gloss Paint Marker fine White KREUL Lack Marker fine Schwarz / KREUL Gloss Paint Marker fine Black KREUL Lack Marker fine Gold / KREUL Gloss Paint Marker fine Gold KREUL Lack Marker fine Silber / KREUL Gloss Paint Marker fine Silver KREUL Lack Marker fine Rot / KREUL Gloss Paint Marker fine Red KREUL Lack Marker extrafine Weiß / KREUL Gloss Paint Marker extrafine White KREUL Lack Marker extrafine Schwarz / KREUL Gloss Paint Marker extrafine Black KREUL Lack Marker extrafine Gold / KREUL Gloss Paint Marker extrafine Gold KREUL Lack Marker extrafine Silber / KREUL Gloss Paint Marker extrafine Silver KREUL Lack Marker extrafine Rot / KREUL Gloss Paint Marker extrafine Red KREUL Lack Marker calligraphy Weiß / KREUL Gloss Paint Marker calligraphy White KREUL Lack Marker calligraphy Schwarz / KREUL Gloss Paint Marker calligraphy Black KREUL Lack Marker calligraphy Gold / KREUL Gloss Paint Marker calligraphy Gold KREUL Lack Marker calligraphy Silber / KREUL Gloss Paint Marker calligraphy Silver

Artikelnummer / Article number	471084
Handelsname / Trade name	KREUL Lack Marker Thekendisplay /
	KREUL Gloss Paint Marker counter sales display

Bestandteile / Components:

KREUL Lack Marker medium Weiß / KREUL Gloss Paint Marker medium White KREUL Lack Marker medium Gelb / KREUL Gloss Paint Marker medium Yellow KREUL Lack Marker medium Orange / KREUL Gloss Paint Marker medium Orange KREUL Lack Marker medium Rot / KREUL Gloss Paint Marker medium Red KREUL Lack Marker medium Pink / KREUL Gloss Paint Marker medium Pink KREUL Lack Marker medium Hellblau / KREUL Gloss Paint Marker medium Light Blue KREUL Lack Marker medium Blau / KREUL Gloss Paint Marker medium Blue KREUL Lack Marker medium Violett / KREUL Gloss Paint Marker medium Violet KREUL Lack Marker medium Grün / KREUL Gloss Paint Marker medium Green KREUL Lack Marker medium Braun / KREUL Gloss Paint Marker medium Brown KREUL Lack Marker medium Schwarz / KREUL Gloss Paint Marker medium Black KREUL Lack Marker medium Gold / KREUL Gloss Paint Marker medium Gold KREUL Lack Marker medium Silber / KREUL Gloss Paint Marker medium Silver KREUL Lack Marker medium Kupfer / KREUL Gloss Paint Marker medium Copper KREUL Lack Marker medium Neongelb / KREUL Gloss Paint Marker medium Neon Yellow KREUL Lack Marker medium Neonorange / KREUL Gloss Paint Marker medium Neon Orange KREUL Lack Marker medium Neonpink / KREUL Gloss Paint Marker medium Neon Pink

Artikelnummer / Article number Handelsname / Trade name 471085

KREUL Lack Marker fine, extrafine, calligraphy Warenpaket für Modul / KREUL Gloss Paint Marker fine, extrafine, calligraphy sales package for module

Bestandteile / Components:

KREUL Lack Marker fine Weiß / KREUL Gloss Paint Marker fine White KREUL Lack Marker fine Gelb / KREUL Gloss Paint Marker fine Yellow KREUL Lack Marker fine Orange / KREUL Gloss Paint Marker fine Orange KREUL Lack Marker fine Rot / KREUL Gloss Paint Marker fine Red KREUL Lack Marker fine Pink / KREUL Gloss Paint Marker fine Pink KREUL Lack Marker fine Hellblau / KREUL Gloss Paint Marker fine Light Blue KREUL Lack Marker fine Blau / KREUL Gloss Paint Marker fine Blue KREUL Lack Marker fine Violett / KREUL Gloss Paint Marker fine Violet KREUL Lack Marker fine Grün / KREUL Gloss Paint Marker fine Green KREUL Lack Marker fine Braun / KREUL Gloss Paint Marker fine Brown KREUL Lack Marker fine Schwarz / KREUL Gloss Paint Marker fine Black KREUL Lack Marker fine Gold / KREUL Gloss Paint Marker fine Gold KREUL Lack Marker fine Silber / KREUL Gloss Paint Marker fine Silver KREUL Lack Marker fine Kupfer / KREUL Gloss Paint Marker fine Copper KREUL Lack Marker extrafine Weiß / KREUL Gloss Paint Marker extrafine White KREUL Lack Marker extrafine Rot / KREUL Gloss Paint Marker extrafine Red KREUL Lack Marker extrafine Schwarz / KREUL Gloss Paint Marker extrafine Black KREUL Lack Marker extrafine Gold / KREUL Gloss Paint Marker extrafine Gold KREUL Lack Marker extrafine Silber / KREUL Gloss Paint Marker extrafine Silver KREUL Lack Marker extrafine Kupfer / KREUL Gloss Paint Marker extrafine Copper KREUL Lack Marker calligraphy Weiß / KREUL Gloss Paint Marker calligraphy White KREUL Lack Marker calligraphy Schwarz / KREUL Gloss Paint Marker calligraphy Black KREUL Lack Marker calligraphy Gold / KREUL Gloss Paint Marker calligraphy Gold KREUL Lack Marker calligraphy Silber / KREUL Gloss Paint Marker calligraphy Silver KREUL Lack Marker calligraphy Kupfer / KREUL Gloss Paint Marker calligraphy Copper



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2023

Version number 1.2 (replaces version 1.1)

Revision: 22.03.2023

1 Identification of the substance/mixture and of the company/undertaking 1.1 Product identifier Trade name: **KREUL Gloss Paint Marker medium Black KREUL Gloss Paint Marker fine Black KREUL Gloss Paint Marker extrafine Black KREUL Gloss Paint Marker extrafine Black KREUL Gloss Paint Marker medium White** KREUL Gloss Paint Marker fine White **KREUL Gloss Paint Marker extrafine White KREUL Gloss Paint Marker extrafine White** (Safety data sheet for the included ink.) · Article number: 47010, 47210, 47410, 47510, 47011, 47211, 47411, 47511 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 flame Flam. Lig. 3 H226 Flammable liquid and vapour. STOT SE 3 H336 May cause drowsiness or dizziness. 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 GHS07 GHS02 · Signal word Warning (Contd. on page 2) GB

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		(Contd. of page 1)
· Hazard-	determining components of labelling:	
	xy-2-propanol	
	statements	
H226 Fla	ammable liquid and vapour.	
	av cause drowsiness or dizziness.	
Precaut	onary statements	
P101	If medical advice is needed, have product container or label at hand.	
P102	Keep out of reach of children.	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P271	Use only outdoors or in a well-ventilated area.	
P370+P	378 In case of fire: Use CO2, powder or water spray to extinguish.	
P403+P	233 Store in a well-ventilated place. Keep container tightly closed.	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.	
2.3 Othe	er hazards	
Results	of PBT and vPvB assessment	
PRT. No	t applicable	

- **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: 107-98-2	1-methoxy-2-propanol	70-<90%
EINECS: 203-539-1	🚸 Flam. Liq. 3, H226; 🚸 STOT SE 3, H336	
Index number: 603-064-00-3		
CAS: 1589-47-5	2-methoxypropanol	<0.25%
EINECS: 216-455-5	🚸 Flam. Liq. 3, H226; 🚸 Repr. 1B, H360D; 🔶 Eye Dam. 1, H318; 🚸 Skin Irrit. 2,	
Index number: 603-106-00-0	H315; STOT SE 3, H335	
· 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
- · 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:
- Rinse opened eye for several minutes under running water.
- Remove contact lenses.
- · 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: CO2, 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: Mouth 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: 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 contaminated material as waste according to item 13. Ensure adequate ventilation. Dispose of the material collected according to regulations.

- 6.4 Reference to other sections
- See Section 7 for information on safe handling.

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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:
- Keep ignition sources away Do not smoke. Protect against electrostatic charges.
- · 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:
- Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
- Further information about storage conditions: Keep container tightly sealed.
- Storage class: 3
- · 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:			
ſ		I-methoxy-2-propanol		
ſ		rt-term value: 560 mg/m³, 150 ppm		
		g-term value: 375 mg/m³, 100 ppm		
	Sk	Sk		
[· DNELs			
ſ	107-98-2 1	I-methoxy-2-propanol		
ľ	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/m³ (general population)	

369 mg/m³ (worker) · PNECs 107-98-2 1-methoxy-2-propanol water 100 mg/l freshwater 10 mg/l 1 mg/l marine water sewage treatment plant (STP) 100 mg/l freshwater sediment 52.3 mg/kg marine sediment 5.2 mg/kg soil 4.59 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: Use suitable respiratory protective device when high concentrations are present.
- 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. For the permanent contact gloves made of the following materials are suitable: Butyl rubber, BR

Recommended thickness of the material: ≥ 0.4 mm

Value for the permeation: Level \leq 8h

• As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR

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Recommended thickness of the material: ≥ 0.38 mm Value for the permeation: Level $\leq 2\text{-}4h$

· Eye/face protection

Printing date 22.03.2023



Tightly sealed goggles

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: Alcohol-like · Odour threshold: Not determined. · Melting point/freezing point: Undetermined. · Boiling point or initial boiling point and boiling range 120 °C Flammability Flammable. Lower and upper explosion limit · Lower: 1.7 Vol % · Upper: 11.5 Vol % · Flash point: 31 °C Ignition temperature: 250 °C Not determined. Decomposition temperature: Not determined. pH Viscosity: Kinematic viscosity Not determined. · Dynamic: Not determined. Solubility · water: Partly miscible. Partition coefficient n-octanol/water (log value) Not determined. 12 hPa Vapour pressure at 20 °C: Density and/or relative density Density: Not determined. Relative density Not determined. · Vapour density Not determined 9.2 Other information Appearance: Fluid Form: · Important information on protection of health and environment, and on safety. Auto-ignition temperature: Product is not selfigniting. · Explosive properties: Product is not explosive. However, formation of explosive air/ vapour mixtures are possible. · Solvent content: · Organic solvents: <85 % · VOC (EC) <82.00 % 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 Flammable liquid and vapour. · 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 GB

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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 rel	levant for classification:
107-98-2 1	1-methox	y-2-propanol
Oral	LD50	4,016 mg/kg (rat) (EU B.1, ECHA)
Dermal	LD50	13,000 mg/kg (rab)
		>2,000 mg/kg (rat) (EU B.3, ECHA)
Inhalative	LC50/4h	30.04 mg/m³ (rat) (ECHA)
· Skin corre	osion/irri	tation Based on available data, the classification criteria are not met.
		ge/irritation Based on available data, the classification criteria are not met.
 Respirato 	rv or skir	sensitisation Based on available data the classification criteria are not m

- 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
- 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.
- · 11.2 Information on other hazards
- Endocrine disrupting properties
- None of the ingredients is listed.

12 Ecological information

· 12.1 Toxicity

 Aquatic 	toxicity:	
-----------------------------	-----------	--

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

- LC50/96h 1,000 mg/l (oncorhynchus mykiss) (OECD 203)
- LC50/48h 21,100–25,900 mg/l (daphnia magna) (ESR-ES-15)
- ErC50 >1,000 mg/l /7d (pseudokirchneriella subcapitata) (ECHA)
- 1589-47-5 2-methoxypropanol
- EC50/48h >500 mg/l (daphnia magna)
- EC50/72h >1,000 mg/l (selenastrum capricornutum)
- EC50/96h >1,000 mg/l (pimephales promelas)
- 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
- · 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 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.

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• Recommended cleansing agents: Water, if necessary together with cleansing agents.

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14.1 UN number or ID number	
ADR, IMDG, IATA	UN1263
14.2 UN proper shipping name	
	1263 PAINT
IMDG, IATA	PAINT
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class Label	3 Flammable liquids. 3
14.4 Packing group ADR, IMDG, IATA	111
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Flammable liquids.
Hazard identification number (Kemler code):	30
EMS Number: Stowage Category	F-E, <u>S-E</u> A
14.7 Maritime transport in bulk according to IM	
instruments	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	D/E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 1263 PAINT, 3, III

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 P5c FLAMMABLE LIQUIDS

- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- 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

- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H360D May damage the unborn child.
- · Department issuing SDS: Product Safety Department
- · Contact: B. Treiber, b.treiber@c-kreul.de

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⁻ GB

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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 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) DNEL: Derived No-Effect Level (UK REACH) PNEC: Predicted No-Effect Concentration (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose. 50 percent

LD50: Letrial concentration, so percent LD50: Letrial dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids – Category 3 Skin Irrit, 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Repr. 1B: Reproductive toxicity – Category 1B STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

* Data compared to the previous version altered.



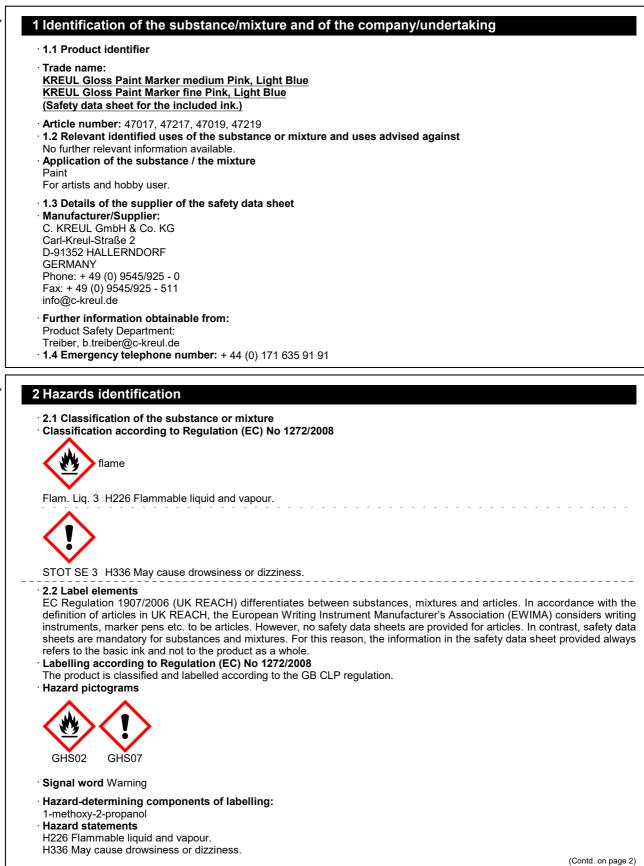
Safety data sheet

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Precautionary statements

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- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P271 Use only outdoors or in a well-ventilated area.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P370+P378 In case of fire: Use CO2, powder or water spray to extinguish.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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 Mixtures

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

 Dangerous components: 		
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	50-<70%
CAS: 1589-47-5 EINECS: 216-455-5 Index number: 603-106-00-0	2-methoxypropanol	<0.25%
 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
- · 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:
- Rinse opened eye for several minutes under running water.
- Remove contact lenses.
- · 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: CO2, 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: Mouth 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: 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 contaminated material as waste according to item 13. Ensure adequate ventilation.

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.

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Version number 1.1 (replaces version 1.0)

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7 Handling and storage

- 7.1 Precautions for safe handling No special precautions are necessary if used correctly.
 Information about fire and explosion protection: Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.
- · 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:
- Do not store together with reducing agents, heavy-metal compounds, acids and alkalis. **Further information about storage conditions:** Keep container tightly sealed.
- · Storage class: 3
- · 7.3 Specific end use(s) See chapter 1.2.

8 Exposure controls/personal protection

8.1 Control parameters

· 8.1 Control parameters				
Ingredients with limit values that require monitoring at the workplace:				
107-98-2 1	107-98-2 1-methoxy-2-propanol			
	rt-term value: 560 m			
	g-term value: 375 m	g/m³, 100 ppm		
Sk				
·DNELs				
107-98-2 1	-methoxy-2-propar	ol		
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/m³ (general population)	
			369 mg/m³ (worker)	
PNECs				
107-98-2 1	-methoxy-2-propar	ol		
water	100 mg/l			
freshwater	freshwater 10 mg/l			
marine wat	ter	1 mg/l		
sewage treatment plant (STP)		100 mg/l		
freshwater sediment		52.3 mg/kg		
marine sediment 5.2 mg/kg		5.2 mg/kg	2 mg/kg	
soil 4.59 mg/kg		4.59 mg/kg		
· Additiona	I information: The I	ists valid during th	ne making were used as basis.	
· 8.2 Expos	ure 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: Use suitable respiratory protective device when high concentrations are present.
- 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. • For the permanent contact gloves made of the following materials are suitable:
- Butyl rubber, BR
- Recommended thickness of the material: ≥ 0.4 mm
- Value for the permeation: Level \leq 8h
- As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR Recommended thickness of the material: > 0.38 mm
- Value for the permeation: Level \leq 2-4h

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· Eye/face protection

Tightly sealed g	goggles
------------------	---------

Physical and chemical properties	
Physical and chemical properties	
9.1 Information on basic physical and chemical prope	rties
General Information	
Physical state	Fluid
Colour:	According to product specification
Odour:	Alcohol-like
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range	120 °C
Flammability	Flammable.
Lower and upper explosion limit	
Lower:	1.7 Vol %
Upper:	11.5 Vol %
Flash point:	31 °C
Ignition temperature:	250 °C Not determined.
Decomposition temperature: pH	Not determined.
	Not determined.
Viscosity: Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	Not determined.
water:	Fully miscible.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	12 hPa
Density and/or relative density	12 III a
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not determined.
. ,	Hot dotommod.
9.2 Other information	
Appearance:	
Form:	Fluid
Important information on protection of health an environment, and on safety.	u
Auto-ignition temperature:	Droduct is not colfigniting
Explosive properties:	Product is not selfigniting. Product is not explosive. However, formation of explosive air
Explosive properties.	vapour mixtures are possible.
Solvent content:	
VOC (EC)	<82.00 %
Change in condition	SZ:00 /0
Evaporation rate	Not determined.
•	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	Flammable liquid and vapour.
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 gase	
in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals Desensitised explosives	Void Void

10 Stability and reactivity

· 10.1 Reactivity No further relevant information available.

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· 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:	
-----------------------------------------------	--

107-98-2 1-methoxy-2-propanol		
Oral	LD50	4,016 mg/kg (rat) (EU B.1, ECHA)
Dermal	LD50	13,000 mg/kg (rab)
		>2,000 mg/kg (rat) (EU B.3, ECHA)
Inhalative	LC50/4h	30.04 mg/m³ (rat) (ECHA)
· Skin corr	osion/irrit	ation Based on available data, the classif

ification criteria are not met.

- · 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
- 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.
- 11.2 Information on other hazards
- Endocrine disrupting properties
- None of the ingredients is listed.

12 Ecological information

· 12.1 Toxicity

· Aquatic to	xicity:			
107-98-2 1	-methoxy-2-propanol			
LC50/96h	1,000 mg/l (oncorhynchus mykiss) (OECD 203)			
LC50/48h	21,100–25,900 mg/l (daphnia magna) (ESR-ES-15)			
ErC50	>1,000 mg/l /7d (pseudokirchneriella subcapitata) (ECHA)			
1589-47-5	2-methoxypropanol			
EC50/48h	>500 mg/l (daphnia magna)			
EC50/72h >1,000 mg/l (selenastrum capricornutum)				
EC50/96h	EC50/96h >1,000 mg/l (pimephales promelas)			
· 12.3 Bioac · 12.4 Mobi	stence and degradability No further relevant information available. ccumulative potential No further relevant information available. lity in soil No further relevant information available.			
• 12.5 Resu • PBT: Not a • vPvB: Not				
· 12.7 Othe	crine disrupting properties The product does not contain substances with endocrine disrupting properties. r adverse effects I 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 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.

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14.1 UN number or ID number ADR, IMDG, IATA	UN1263
14.2 UN proper shipping name ADR IMDG, IATA	1263 PAINT PAINT
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class Label	3 Flammable liquids. 3
14.4 Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category	Warning: Flammable liquids. 30 F-E, <u>S-E</u> A
14.7 Maritime transport in bulk according to IM instruments	Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
Transport category Tunnel restriction code	3 D/E
IMDG Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 1263 PAINT, 3, III

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 P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t
- 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

H226 Flammable liquid and vapour.

- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H360D May damage the unborn child.
- 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 Martine Good For Jangerood Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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	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)
	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
	Flam. Liq. 3: Flammable liquids – Category 3
	Skin Irrit. 2: Skin corrosion/irritation – Category 2
	Eye Dam. 1: Serious eye damage/eye irritation – Category 1
	Repr. 1B: Reproductive toxicity – Category 1B
	STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
•	* Data compared to the previous version altered.

GB –



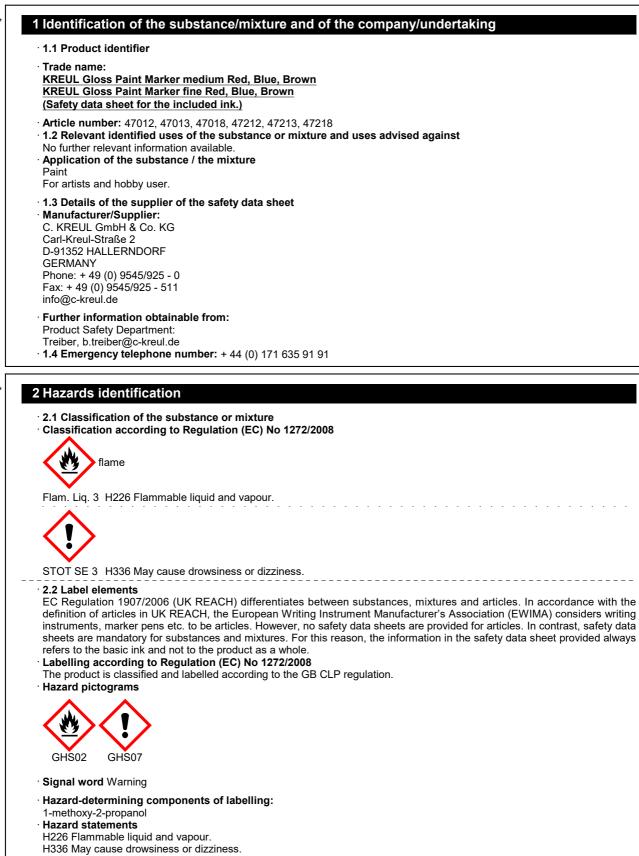
Safety data sheet

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Precautionary statements

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- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Use only outdoors or in a well-ventilated area. P271
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P370+P378 In case of fire: Use CO2, powder or water spray to extinguish.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

1-methoxy-2-propanol Flam. Liq. 3, H226;	50-<70%
nitrocellulose solutions, with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose Flam. Sol. 1, H228	<2.5%
2-methoxypropanol	<0.25%
amines, alkyl(C=12~18)dimethyl Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	<0.25%
	 Flam. Liq. 3, H226; STOT SE 3, H336 nitrocellulose solutions, with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose Flam. Sol. 1, H228 2-methoxypropanol Flam. Liq. 3, H226; Repr. 1B, H360D; Eye Dam. 1, H318; Skin Irrit. 2, H315; STOT SE 3, H335 amines, alkyl(C=12~18)dimethyl

4 First aid measures

- 4.1 Description of first aid measures
- · 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 eve contact:
- Rinse opened eye for several minutes under running water.
- Remove contact lenses.
- 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: CO2, 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: Mouth 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: 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 contaminated material as waste according to item 13.
- Ensure adequate ventilation.
- Dispose of the material collected according to regulations.

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· 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:
- Keep ignition sources away Do not smoke.
- Protect against electrostatic charges.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- \cdot Information about storage in one common storage facility:
- Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
- Further information about storage conditions: Keep container tightly sealed.
- · Storage class: 3
- · 7.3 Specific end use(s) See chapter 1.2.

8 Exposure controls/personal protection

8.1 Control parameters

· 8.1 Control parameters			
 Ingredients with limit values that require monitoring at the workplace: 			
107-98-2 1	I-methoxy-2-propar	ol	
	rt-term value: 560 m		
	g-term value: 375 mõ	g/m³, 100 ppm	
Sk			
·DNELs			
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/m³ (general population)
			369 mg/m³ (worker)
PNECs			
107-98-2 1-methoxy-2-propanol			
water	water 100 mg/l		
freshwater	freshwater 10 mg/l		
marine wa	marine water 1 mg/l		
sewage tre	sewage treatment plant (STP) 100 mg/l		

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

52.3 mg/kg

5.2 mg/kg 4.59 mg/kg

· 8.2 Exposure controls

freshwater sediment marine sediment

soil

- · 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: Use suitable respiratory protective device when high concentrations are present.
- · 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. • 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 < 8h

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 \cdot As protection from splashes gloves made of the following materials are suitable:

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Eye/face protection	
Tightly sealed goggles	
Physical and chemical properties	
Physical and chemical properties	
9.1 Information on basic physical and chemical proper General Information	ties
Physical state	Fluid
Colour:	According to product specification
Odour:	Alcohol-like
Odour threshold:	Not determined.
Melting point/freezing point: Boiling point or initial boiling point and boiling range	Undetermined. 120 °C
Flammability	Flammable.
Lower and upper explosion limit	
Lower:	1.7 Vol %
Upper:	11.5 Vol %
Flash point: Ignition temperature:	31 °C 250 °C
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility water:	Fully miscible.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	12 hPa
Density and/or relative density	
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information Appearance:	
Form:	Fluid
Important information on protection of health and	1
environment, and on safety.	
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive air vapour mixtures are possible.
Solvent content:	
VOC (EC)	<82.00 %
Change in condition	
Evaporation rate	Not determined.
Information with regard to physical hazard classes	
Explosives	Void
Flammable gases Aerosols	Void Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures Pyrophoric liquids	Void Void
Pyrophoric solids	Void Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases	
in contact with water	Void
Oxidising liquids	Void
Oxidising solids Organic peroxides	Void
	Void

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· Desensitised explosives

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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.
- \cdot 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:					
107-98-2 1	107-98-2 1-methoxy-2-propanol				
Oral	LD50	4,016 mg/kg (rat) (EU B.1, ECHA)			
Dermal	LD50	13,000 mg/kg (rab)			
		>2,000 mg/kg (rat) (EU B.3, ECHA)			
Inhalative	LC50/4h	30.04 mg/m³ (rat) (ECHA)			
68391-04-	8 amines	, alkyl(C=12~18)dimethyl			
Oral	LD50	500 mg/kg (ATE)			
Respirato Germ cell Carcinogo Reproduc STOT-sin May cause STOT-rep Aspiration 11.2 Infor	ry or skin mutagen enicity Ba tive toxic gle expos drowsine eated exp hazard l mation or	ge/irritation Based on available data, the classification criteria are not met. n sensitisation Based on available data, the classification criteria are not met. nicity Based on available data, the classification criteria are not met. sed on available data, the classification criteria are not met. Sity Based on available data, the classification criteria are not met. sere ses or dizziness. Dosure Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. n other hazards ng properties			
	None of the ingredients is listed.				

12 Ecological information

· 12.1 Toxicity

· Aquatic to	xicity:
107-98-2 1	-methoxy-2-propanol
LC50/96h	1,000 mg/l (oncorhynchus mykiss) (OECD 203)
LC50/48h	21,100–25,900 mg/l (daphnia magna) (ESR-ES-15)
ErC50	>1,000 mg/l /7d (pseudokirchneriella subcapitata) (ECHA)
1589-47-5	2-methoxypropanol
EC50/48h	>500 mg/l (daphnia magna)
EC50/72h	>1,000 mg/l (selenastrum capricornutum)
EC50/96h	>1,000 mg/l (pimephales promelas)
· 12.3 Bioac	stence and degradability No further relevant information available.
	lity in soil No further relevant information available.
	Its of PBT and vPvB assessment
 • PBT: Not a • vPvB: Not 	
· 12.6 Endo · 12.7 Other	crine disrupting properties The product does not contain substances with endocrine disrupting properties. r adverse effects l ecological information:
	w undiluted product or large quantities of it to reach ground water, water course or sewage system.

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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.

Transport information	
· 14.1 UN number or ID number · ADR, IMDG, IATA	UN1263
· 14.2 UN proper shipping name · ADR	1263 PAINT
IMDG, IATA	PAINT
· 14.3 Transport hazard class(es)	
· ADR, IMDG, IATA	
Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group · ADR, IMDG, IATA	111
· 14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Flammable liquids.
 Hazard identification number (Kemler code): EMS Number: 	30 F-E,S-E
Stowage Category	A
 14.7 Maritime transport in bulk according to IM instruments 	
	Not applicable.
• Transport/Additional information:	
· Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
Tunnel restriction code	D/E
IMDG	
· Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1
Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1263 PAINT, 3, III

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 P5c FLAMMABLE LIQUIDS
- $^{\circ}$ Qualifying quantity (tonnes) for the application of lower-tier requirements $5{,}000~t$
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- 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

H226 Flammable liquid and vapour.

H228 Flammable solid.

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H302 Harmful if swallowed.	
H314 Causes severe skin burns and eye damage.	
H315 Causes skin irritation.	
H318 Causes serious eye damage.	
H335 May cause respiratory irritation.	
H336 May cause drowsiness or dizziness.	
H360D May damage the unborn child.	
H400 Very toxic to aquatic life.	
H410 Very 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 Co Goods by Road)	ncerning the International Carriage of Dangerous
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) 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	
Flam. Liq. 3: Flammable liquids – Category 3	
Flam. Sol. 1: Flammable solids – Category 1 Acute Tox. 4: Acute toxicity – Category 4	
Skin Corr. 1B: Skin corrosion/irritation – Category 1B	
Skin Irrit. 2: Skin corrosion/irritation – Category 2	
Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Repr. 1B: Reproductive toxicity – Category 1B	
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 * Data compared to the previous version altered.	
Data compared to the previous version altered.	GB
	GB



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.03.2023

Version number 1.1 (replaces version 1.0)

Revision: 23.03.2023

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

- 1.1 Product identifier
- Trade name:

KREUL Gloss Paint Marker medium Orange, Green, Yellow, Violet KREUL Gloss Paint Marker fine Orange, Green, Yellow, Violet (Safety data sheet for the included ink.)

- · Article number: 47009, 47014, 47015, 47016, 47209, 47214, 47215, 47216
- **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

flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



STOT SE 3 H336 May cause drowsiness or dizziness.

· 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:
- 1-methoxy-2-propanol • Hazard statements

H226 Flammable liquid and vapour. H336 May cause drowsiness or dizziness.

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Precautionary statements

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- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P271 Use only outdoors or in a well-ventilated area.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P370+P378 In case of fire: Use CO2, powder or water spray to extinguish.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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 Mixtures

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

EINECS: 203-539-1 Index number: 603-064-00-3 Image: Flam. Liq. 3, H226; Image: STOT SE 3, H336 CAS: 1589-47-5 EINECS: 216-455-5 Index number: 603-106-00-0 2-methoxypropanol Image: Stor SE 3, H326; Image: Repr. 1B, H360D; Image: Eye Dam. 1, H318; Image: Skin Irrit. 2, H315; STOT SE 3, H335 CAS: 68391-04-8 EINECS: 269-923-6 amines, alkyl(C=12~18)dimethyl Image: Skin Corr. 1B, H314; Image: Aquatic Acute 1, H400; Aquatic Chronic 1, H410;	Dangerous components:		
EINECS: 216-455-5 Index number: 603-106-00-0 Flam. Liq. 3, H226; Repr. 1B, H360D; Eye Dam. 1, H318; Skin CAS: 68391-04-8 amines, alkyl(C=12~18)dimethyl <0.2 EINECS: 269-923-6 Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; <0.2	EINECS: 203-539-1		50-<70%
EINECS: 269-923-6 🔗 Skin Corr. 1B, H314; 🚯 Aquatic Acute 1, H400; Aquatic Chronic 1, H410;	EINECS: 216-455-5	♦ Flam. Liq. 3, H226; ♦ Repr. 1B, H360D; ♦ Eye Dam. 1, H318; ♦ Skin	<0.25%
Reg.nr.: 01-2119485586-22-XXXX () Acute 10X. 4, H302		Skin Corr. 1B, H314; 🚱 Aquatic Acute 1, H400; Aquatic Chronic 1, H410;	<0.25%

4 First aid measures

- · 4.1 Description of first aid measures
- · 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:
- Rinse opened eye for several minutes under running water.
- Remove contact lenses.
- 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: CO2, 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: Mouth 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: 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 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.

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See Section 13 for disposal information.

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7 Handling and storage

- 7.1 Precautions for safe handling No special precautions are necessary if used correctly. • Information about fire - and explosion protection:
- Keep ignition sources away Do not smoke.
- Protect against electrostatic charges.
- · 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:
- Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
- Further information about storage conditions: Keep container tightly sealed.
- · Storage class: 3
- · 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: 107-98-2 1-methoxy-2-propanol

WEL Short-term value: 560 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm Sk

DIALLS		
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/m³ (general population)
		369 mg/m³ (worker)

· PNECs	PNECs		
107-98-2 1-methoxy-2-propar	nol		
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		
soil	4.59 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: Use suitable respiratory protective device when high concentrations are present.
- 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. **For the permanent contact gloves made of the following materials are suitable:** Butyl rubber, BR

Recommended thickness of the material: ≥ 0.4 mm

Value for the permeation: Level $\leq 8h$

As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR Recommended thickness of the material: > 0.38 mm

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Value for the permeation: Level \leq 2-4h \cdot Eye/face protection

Tightly sealed goggles

Physical and chemical properties	
9.1 Information on basic physical and chemical prop	perties
General Information	
Physical state	Fluid
Colour:	According to product specification
Odour:	Alcohol-like
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling rang	
Flammability	Flammable.
Lower and upper explosion limit	
Lower:	1.7 Vol %
Upper:	11.5 Vol %
Flash point:	31 °C
Ignition temperature:	250 °C
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	N
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Partly miscible.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	12 hPa
Density and/or relative density	
Density at 20 °C:	0.9–1.3 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Fluid
Important information on protection of health a	and
environment, and on safety.	
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive ai
• • • • • •	vapour mixtures are possible.
Solvent content:	
VOC (EC)	<82.00 %
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	Flammable liquid and vapour.
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 gas	Ses
in contact with water	Void
	Void
Oxidising liquids	
Oxidising liquids Oxidising solids	Void
	Void Void
Oxidising solids	

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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.
- \cdot 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.

		a de de la constance de la const				
· LD/LC50 values relevant for classification:						
107-98-2 1	107-98-2 1-methoxy-2-propanol					
Oral	LD50	4,016 mg/kg (rat) (EU B.1, ECHA)				
Dermal	LD50	13,000 mg/kg (rab)				
		>2,000 mg/kg (rat) (EU B.3, ECHA)				
Inhalative	LC50/4h	30.04 mg/m³ (rat) (ECHA)				
68391-04-	8 amines	, alkyl(C=12~18)dimethyl				
Oral	LD50	500 mg/kg (ATE)				
Respirato Germ cell Carcinogo Reproduc STOT-sin STOT-rep Aspiration 11.2 Infor	ry or skin mutagen enicity Ba tive toxic gle expos eated exp n hazard l mation or	ge/irritation Based on available data, the classification criteria are not met. a sensitisation Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. hicity Based on available data, the classifica				
	•					
None of th	e ingredie	ents is listed.				
12 Ecologi		rmation				

· 12.1 Toxicity

- Aquatic toxicity:
- 107-98-2 1-methoxy-2-propanol
- LC50/96h 1,000 mg/l (oncorhynchus mykiss) (OECD 203) LC50/48h 21,100–25,900 mg/l (daphnia magna) (ESR-ES-15)
- ErC50 >1,000 mg/l /7d (pseudokirchneriella subcapitata) (ECHA)
- 1589-47-5 2-methoxypropanol
- EC50/48h >500 mg/l (daphnia magna)
- EC50/72h >1,000 mg/l (selenastrum capricornutum)
- EC50/96h >1,000 mg/l (pimephales promelas)
- 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
- · Additional ecological information:
- · General notes:

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

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.

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· Recommended cleansing agents: Water, if necessary together with cleansing agents.

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14.1 UN number or ID number	
ADR, IMDG, IATA	UN1263
14.2 UN proper shipping name	
ADR IMDG, IATA	1263 PAINT PAINT
14.3 Transport hazard class(es)	
,	
ADR, IMDG, IATA	
Class Label	3 Flammable liquids. 3
	3
14.4 Packing group ADR, IMDG, IATA	111
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Flammable liquids.
Hazard identification number (Kemler code):	30
EMS Number: Stowage Category	F-E, <u>S-E</u> A
14.7 Maritime transport in bulk according to IM	
instruments	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 30 ml
Transport category	3
Tunnel restriction code	D/E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum pot quantity per inper peekeging: 20 ml
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 1263 PAINT, 3, III

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 P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t

- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t
- 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

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H360D May damage the unborn child.
- H400 Very toxic to aquatic life.

(Contd. on page 7)

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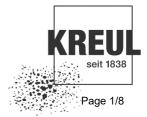
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H410 Very toxic to aquatic life with long lasting effects.
· Department issuing SDS: Product Safety Department
Contact: B. Treiber, b.treiber@c-kreul.de
Abbreviations and acronyms:
ADR: Accord relatif au transport international des marchandises dangereuses 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)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (UK REACH) PNEC: Predicted No-Effect Concentration (UK REACH)
LCS0: Lethal concentration. 50 percent
LDS0: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Lig. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Repr. 1B: Reproductive toxicity – Category 1B
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
·* Data compared to the previous version altered.



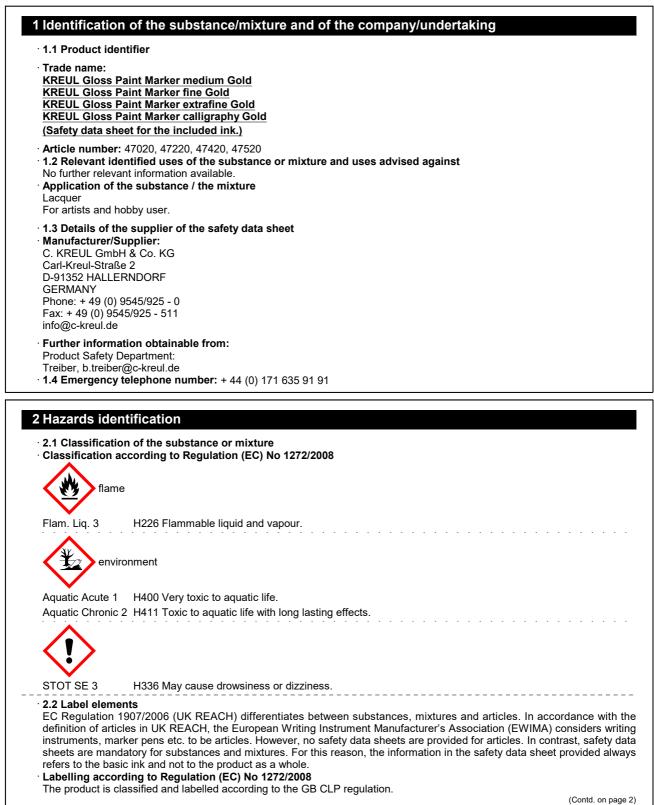
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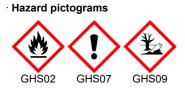


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· Signal word Warning

· Hazard-determining components of labelling:

- 1-methoxy-2-propanol
- Hazard statements

H226 Flammable liquid and vapour.

H336 May cause drowsiness or dizziness. H410 Very toxic to aquatic life with long lasting effects.

H410 Very toxic to aquatic life with long las

- Precautionary statements
- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P271 Use only outdoors or in a well-ventilated area.
- P370+P378 In case of fire: Use CO2, powder or water spray to extinguish.

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 Mixtures

• Description: Mixture of substances listed below with nonhazardous additions.

 Dangerous components: 		
CAS: 107-98-2 EINECS: 203-539-1 Index number: 603-064-00-3	1-methoxy-2-propanol	50-<75%
CAS: 7440-50-8 EINECS: 231-159-6 Reg.nr.: 01-2119480154-42-XXXX	copper Aquatic Acute 1, H400; Aquatic Chronic 2, H411; 🕐 Acute Tox. 4, H302	10-<25%
CAS: 7440-66-6 EINECS: 231-175-3 Index number: 030-001-01-9 Reg.nr.: 01-2119467174-37-XXXX	zinc powder -zinc dust (stabilized) Aquatic Acute 1, H400; Aquatic Chronic 1, H410	2.5-<10%
CAS: 1589-47-5 EINECS: 216-455-5 Index number: 603-106-00-0	2-methoxypropanol	<0.25%

4 First aid measures

· 4.1 Description of first aid measures

- 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. If symptoms persist, 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: CO2, 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 No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

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(Contd. of page 2) • 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). 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
- No special precautions are necessary if used correctly.
- Keep away from heat and direct sunlight.
- Use only in well ventilated areas. Information about fire - and explosion protection:
- Keep ignition sources away Do not smoke.
- Protect against electrostatic charges.
- · 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: Store away from oxidising agents.
- Further information about storage conditions: Keep container tightly sealed.
- · 7.3 Specific end use(s) See chapter 1.2.

	ol parameters		
-	ts with limit values that require mo	nitoring at the workplace:	
	1-methoxy-2-propanol		
	ort-term value: 560 mg/m³, 150 ppm g-term value: 375 mg/m³, 100 ppm		
Sk	g-term value. 575 mg/m , 100 ppm		
7440-50-8	copper		
WEL Sho	ort-term value: 2** mg/m³		
	g-term value: 0.2* 1** mg/m³		
	ne **dusts and mists (as Cu)		
DNELs			
107-98-2	1-methoxy-2-propanol		
Oral	long-term exposure-systemic effects		
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/m³ (general population)	
		369 mg/m³ (worker)	
7440-50-8			
Oral	long-term exposure-systemic effects		
Dermal	long-term exposure-systemic effects	137 mg/kg bw/d (general population)	
		137 mg/kg bw/d (worker)	
Inhalative	long-term exposure-systemic effects	5 (5 11)	
		18.2 mg/m ³ (worker)	
	zinc powder -zinc dust (stabilized)		
Oral	long-term exposure-systemic effects		
Dermal	long-term exposure-systemic effects		
		83 mg/kg bw/d (worker)	
Inhalative	long-term exposure-systemic effects	2.5 mg/m ³ (general population)	

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nting date 22.03.2023	Version number 1.7	1 (replaces version 1.0) Revision: 22.03.202
· PNECs		(Contd. of page
107-98-2 1-methoxy-2-propan		
water	100 mg/l	
freshwater	10 mg/l	
	U U	
	1 mg/l	
sewage treatment plant (STP)	-	
	52.3 mg/kg	
	5.2 mg/kg	
	4.59 mg/kg	
7440-50-8 copper		
	0.0078 mg/l	
	0.0052 mg/l	
sewage treatment plant (STP)	-	
	87 mg/kg	
	676 mg/kg	
	65.5 mg/kg	
7440-66-6 zinc powder -zinc o	, ,	
	0.0206 mg/l	
	0.0061 mg/l	
sewage treatment plant (STP)	-	
	87 mg/kg	
	56.5 mg/kg	
	35.6 mg/kg	
· Additional information: The li	sts valid during the making	were used as basis.
Due to missing tests no recommixture. Selection of the glove material • Material of gloves The selection of the suitable g from manufacturer to manufa material can not be calculated • Penetration time of glove ma	in mendation to the glove matrix on consideration of the pen- gloves does not only depen acturer. As the product is a in advance and has therefor terial has to be found out by the m loves made of the followin e material: ≥ 0.5 mm	the product/ the substance/ the preparation. aterial can be given for the product/ the preparation/ the chemic etration times, rates of diffusion and the degradation ad on the material, but also on further marks of quality and varie a preparation of several substances, the resistance of the glover re to be checked prior to the application. manufacturer of the protective gloves and has to be observed. Ing materials are suitable:
Tightly sealed gogy Tightly sealed gogy Physical and chemical 9.1 Information on basic physical state	properties	ties Fluid
· Colour: · Odour:		According to product specification Ether-like
· Odour:		Not determined.
• Melting point/freezing point:		Undetermined.
· Boiling point or initial boiling	J point and boiling range	120 °C
Flammability	1	Flammable.
 Lower and upper explosion li · Lower: 	1111C	1.7 Vol %

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	(Contd. of page
· Upper:	11.5 Vol %
Flash point:	31 °C
· Ignition temperature:	>250 °C
Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Partly miscible.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	12 hPa
Density and/or relative density	
· Density at 20 °C:	~1.2 g/cm³
· Relative density	Not determined.
· Vapour density	Not determined.
	Not determined.
 9.2 Other information 	
· Appearance:	
· Form:	Fluid
· Important information on protection of health a	and
environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive ai
	vapour mixtures are possible.
· Solvent content:	
· Organic solvents:	<70 %
Change in condition	
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Flammable liquid and vapour.
· Flammable solids	Void
· Self-reactive substances and mixtures	Void Void
	Vola Void
· Pyrophoric liquids	
· Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable ga	
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

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- 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
- ailable data the ela aifiaati

· Acute tox	icity Base	ed on available data, the classification criteria are not met.	
· LD/LC50	values re	levant for classification:	
107-98-2 ⁻	1-methox	y-2-propanol	
Oral	LD50	4,016 mg/kg (rat) (EU B.1, ECHA)	
Dermal	LD50	13,000 mg/kg (rab)	
		>2,000 mg/kg (rat) (EU B.3, ECHA)	
Inhalative	LC50/4h	30.04 mg/m ³ (rat) (ECHA)	
		·	(Contd. on

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7440-50	0-8 copper	
7440 00	0 0000000	
Oral		EOO malle (ATC)

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Urai	LDSU	SUU mg/kg (ATE)
7440-66-6	zinc pow	der -zinc dust (s	stabilized)

- Oral LD50 >2,000 mg/kg (rat)
- Inhalative LC50/4h 5.41 mg/l (rat)
- 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 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

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.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties
- None of the ingredients is listed.

12 Ecological information

· 12.1 Toxicity

· Aquatic toxicity:	
107-98-2 1-methoxy-2-propanol	
LC50/96h 1,000 mg/l (oncorhynchus mykiss) (OECD 203)	
LC50/48h 21,100–25,900 mg/l (daphnia magna) (ESR-ES-15)	
ErC50 >1,000 mg/l /7d (pseudokirchneriella subcapitata) (ECHA)	
1589-47-5 2-methoxypropanol	
EC50/48h >500 mg/l (daphnia magna)	
EC50/72h >1,000 mg/l (selenastrum capricornutum)	
EC50/96h >1,000 mg/l (pimephales promelas)	
 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 propertie 12.7 Other adverse effects Remark: Very toxic for fish Toxic for fish Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. Very toxic for aquatic organisms Toxic for aquatic organisms 	S.

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.

· 14.1 UN number or ID number	
· ADR, IMDG, IATA	UN1263
· 14.2 UN proper shipping name	
ADR	1263 PAINT, ENVIRONMENTALLY HAZARDOUS
IMDG	PAINT (copper, zinc powder -zinc dust (stabilized)), MARIN
	POLLUTANT
·IATA	PAINT

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-	
44.2 Transport barand place/es)	(Contd. of pa
14.3 Transport hazard class(es)	
· ADR, IMDG	
· Class	3 Flammable liquids.
Label	3
· IATA	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR):	Symbol (fish and tree) Symbol (fish and tree)
14.6 Special precautions for user	Warning: Flammable liquids.
Hazard identification number (Kemler code):	30
EMS Number:	F-E, <u>S-E</u>
· Stowage Category	A
· 14.7 Maritime transport in bulk according to IM	10
instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
Transport category	3
· Tunnel restriction code	D/E
· IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1263 PAINT, 3, III, 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
- E1 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

- · Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- 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

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H360D May damage the unborn child.

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 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. 	td. of page 7)
 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 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 EINCS: 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 Level (UK REACH) LOS0: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPA: very Persistent and very Bioaccumulative Flam. Lig. 3: Flammable liquids – Category 3 Acute tox: 4: Acute toxicity – Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 1 Repr. 18: Reproductive toxicity – Category 1B STOT SE 3: Specific target organ toxicity (single exposure) – Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1 	ıf Dangerous
Aquate chronic 1. Hazardous to the aquate environment - long-term aquate hazard – Category 1 Aquate Chronic 2. Hazardous to the aquate environment - long-term aquate hazard – Category 2 • * Data compared to the previous version altered.	



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H336 Ma	y cause drowsiness or dizziness.	(Contd. of page 1)
	onary statements	
P101	If medical advice is needed, have product container or label at hand.	
P102	Keep out of reach of children.	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P271	Use only outdoors or in a well-ventilated area.	
P370+P3	378 In case of fire: Use CO2, powder or water spray to extinguish.	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.	
· 2.3 Othe		
· Results	of PBT and vPvB assessment	
· PBT: No	t applicable.	
· vPvB: N	ot applicable.	

3 Composition/information on ingredients

· 3.2 Mixtures

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· Description: Mixture of substances listed below with nonhazardous additions

 Dangerous components: 		
CAS: 107-98-2 EINECS: 203-539-1 Index number: 603-064-00-3	1-methoxy-2-propanol	70-<90%
CAS: 7429-90-5 EINECS: 231-072-3 Index number: 013-002-00-1 Reg.nr.: 01-2119529243-45-XXXX	aluminium powder (stabilised)	5-<10%
CAS: 1589-47-5 EINECS: 216-455-5 Index number: 603-106-00-0	2-methoxypropanol	<0.25%
Index number: 603-106-00-0	Irrit. 2, H315; STOT SE 3, H335	

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

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
- Wash with water and acidic soap.
- Generally the product does not irritate the skin.
- After eve 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: CO2, 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 No further relevant information available.
- 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
- Wear protective equipment. Keep unprotected persons away.
- · 6.2 Environmental precautions: 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 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.

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See Section 13 for disposal information.

7 Handling and storage

- 7.1 Precautions for safe handling
- No special precautions are necessary if used correctly.
- Use only in well ventilated areas. Keep away from heat and direct sunlight.
- Information about fire and explosion protection:
- Keep ignition sources away Do not smoke.
- Protect against electrostatic charges.
- 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: Store away from oxidising agents.
- Further information about storage conditions: Keep container tightly sealed.
- · 7.3 Specific end use(s) See chapter 1.2.

8 Exposure controls/personal protection

· 8.1 Control parameters

· Ingre	 Ingredients with limit values that require monitoring at the workplace: 				
		I-methoxy-2-propanol			
	WEL Short-term value: 560 mg/m³, 150 ppm				
		g-term value: 375 mg/m³, 100 ppm			
	Sk				
· DNEL	DNELs				
107-9	107-98-2 1-methoxy-2-propanol				
Oral		long-term exposure-systemic effects	33 mg/kg (general population)		
Derma	al	long-term exposure-systemic effects	183 mg/kg bw/d (general population)		
			78 ma/ka bw/d (worker)		

Innalative		369 mg/m ³ (worker)
Inhalative	long-term exposure-systemic effects	
		78 mg/kg bw/d (worker)
Donnai	long-term exposure-systemic encets	(general population)

nol	
100 mg/l	
10 mg/l	
1 mg/l	
100 mg/l	
52.3 mg/kg	
5.2 mg/kg	
4.59 mg/kg	
	100 mg/l 10 mg/l 1 mg/l 100 mg/l 52.3 mg/kg 5.2 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:

Wash hands before breaks and at the end of work.

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

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

- Respiratory protection: Use suitable respiratory protective device when high concentrations are present.
- 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. **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.

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Butyl rubber, BR	
Recommended thickness of the material: ≥ 0.5 mm Value for the permeation: Level $\leq 8h$	
Eye/face protection	
Tightly sealed goggles	
Physical and chemical properties	
9.1 Information on basic physical and chemical proper	ties
General Information Physical state	Fluid
Colour:	According to product specification
Odour:	Ether-like
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range	120 °C
Flammability Lower and upper explosion limit	Flammable.
Lower:	1.7 Vol %
Upper:	11.5 Vol %
Flash point:	31 °C
Ignition temperature:	>250 °C
Decomposition temperature:	Not determined.
рН Viscosity:	Not determined.
Viscosity: Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Partly miscible.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	12 hPa
Density and/or relative density Density at 20 °C:	~1 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Fluid
Important information on protection of health and	1
environment, and on safety. Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive ai
	vapour mixtures are possible.
Solvent content:	
Organic solvents:	<82 %
VOC (EC)	<82.00 %
Change in condition Evaporation rate	Not determined.
•	
Information with regard to physical hazard classes Explosives	Void
Explosives Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures Pyrophoric liquids	Void Void
Pyrophoric liquids Pyrophoric solids	Void 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 Corrosive to metals	Void Void
	VOID

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· Desensitised explosives

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Void

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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: Keep away from oxidizing agents, strong alkaline and acidic materials.
- 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.

· Acute toxicity based on available data, the classification criteria are not met.			
· LD/LC50 values relevant for classification:			
107-98-2 1-methoxy-2-propanol			
Oral LD50 4,016 mg/kg (rat) (EU B.1, ECHA)			
Dermal LD50 13,000 mg/kg (rab)			
>2,000 mg/kg (rat) (EU B.3, ECHA)			
Inhalative LC50/4h 30.04 mg/m³ (rat) (ECHA)			
7429-90-5 aluminium powder (stabilised)			
Oral LD50 >2,000 mg/kg (rat)			
Inhalative LC50/4h 888 mg/m³ (rat)			
Inhalative LC50/4h 888 mg/m³ (rat) 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 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 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. • Information on other hazards • Endocrine disrupting properties			
None of the ingredients is listed.			

12 Ecological information

· 12.1 Toxic	ity		
· Aquatic to	xicity:		
107-98-2 1	107-98-2 1-methoxy-2-propanol		
LC50/96h	1,000 mg/l (oncorhynchus mykiss) (OECD 203)		
LC50/48h	21,100–25,900 mg/l (daphnia magna) (ESR-ES-15)		
ErC50	>1,000 mg/l /7d (pseudokirchneriella subcapitata) (ECHA)		
1589-47-5	2-methoxypropanol		
EC50/48h	>500 mg/l (daphnia magna)		
EC50/72h	>1,000 mg/l (selenastrum capricornutum)		
EC50/96h	>1,000 mg/l (pimephales promelas)		
12.3 Bioac 12.4 Mobil 12.5 Resul PBT: Not a vPvB: Not 12.6 Endoo 12.7 Other	 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 Additional ecological information: 		
· General no	•		

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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.

14.1 UN number or ID number ADR, IMDG, IATA	UN1263
, ,	011200
14.2 UN proper shipping name ADR	1263 PAINT
IMDG, IATA	PAINT
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	3 Flammable liquids.
Label	3
14.4 Packing group	
ADR, IMDG, IATA	III
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Flammable liquids.
Hazard identification number (Kemler code):	30
EMS Number:	F-E, <u>S-E</u>
Stowage Category	A
14.7 Maritime transport in bulk according to IM instruments	
	Not applicable.
Transport/Additional information:	
ADR	_
Limited quantities (LQ)	5L October 51
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	D/E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
· · ·	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	

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 P5c FLAMMABLE LIQUIDS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- 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

- H226 Flammable liquid and vapour.
- H228 Flammable solid.
- H315 Causes skin irritation.

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GB

Version number 1.1 (replaces version 1.0)

Printing date 22.03.2023

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· 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 I 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) DNEL: Derived No-Effect Level (UK REACH) PLCS: Lethal concentration, 50 percent LDS0: Lethal concentration, 50 percent DS0: Lethal concentration, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPve: very Persistent and very Bioaccumulative Flam. Sol. 1: Flammable solids – Category 1 Skin Irrit. 2: Skin corrosion/(irritation – Category 2 Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Rep. 18: Reproductive toxicity – Category 18 STOT SE 3: Specific target organ toxic (system) – Category 3 * Data compared to the previous version altered. 	angerous



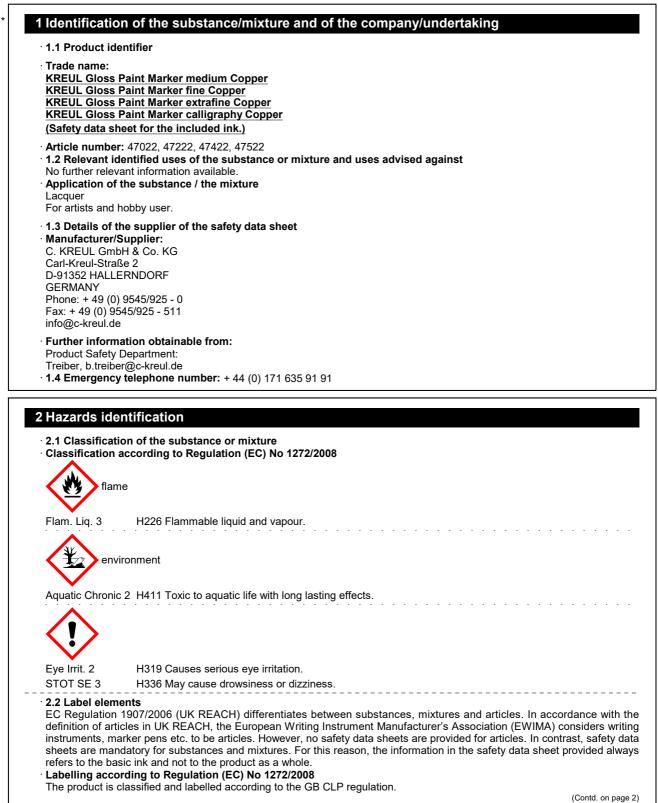
Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2023

Version number 1.1 (replaces version 1.0)

Revision: 22.03.2023



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(Contd. of page 1) · Hazard pictograms GHS02 GHS07 GHS09 Signal word Warning · Hazard-determining components of labelling: 1-methoxy-2-propanol Hazard statements H226 Flammable liquid and vapour. H319 Causes serious eye irritation. 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. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. P271 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of fire: Use CO2, powder or water spray to extinguish. P370+P378 Dispose of contents/container in accordance with local/regional/national/international regulations. P501 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.

Beeenparent mixture er eubetane		
· Dangerous components:		
CAS: 107-98-2 EINECS: 203-539-1 Index number: 603-064-00-3	1-methoxy-2-propanol	50-<100%
CAS: 7440-50-8 EINECS: 231-159-6 Reg.nr.: 01-2119480154-42-XXX	copper Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Eye Irrit. 2, H319	10-<25%
• Additional information · For the	wording of the listed bazard phrases refer to section 16	

4 First aid measures

- · 4.1 Description of first aid measures
- 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:
- Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- Rinse opened eye for several minutes under running water.
- Remove contact lenses.
- · 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: CO2, 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 No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

(Contd. on page 3)

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(Contd. of page 2) • 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:

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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). Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.

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. Keep away from heat and direct sunlight. Use only in well ventilated areas.
- Information about fire and explosion protection: Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
- · 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: Store away from oxidising agents.
- Further information about storage conditions: Keep container tightly sealed.
- · 7.3 Specific end use(s) See chapter 1.2.

	ol parameters	that require mo	nitoring at the workplace:	
-	I-methoxy-2-propar	-	into ing at the workplace.	
	rt-term value: 560 m			
Lon Sk	g-term value: 375 m	g/m³, 100 ppm		
7440-50-8	copper			
	rt-term value: 2** mg	g/m³		
Long	g-term value: 0.2* 1*	* mg/m³		
	ne **dusts and mists	(as Cu)		
DNELS				
	I-methoxy-2-propar			
Oral	v .		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 ³ (general population)	
	369 mg/m ³ (worker)			
7440-50-8	••			
Oral	0 1	,	0.16 mg/kg (general population)	
Dermal	long-term exposure	-systemic effects	137 mg/kg bw/d (general population)	
			137 mg/kg bw/d (worker)	
Inhalative	long-term exposure	-systemic effects	18.2 mg/m³ (general population)	
			18.2 mg/m³ (worker)	
PNECs			-	
107-98-2 1	I-methoxy-2-propar	nol		
water		100 mg/l		
freshwater		10 mg/l		
marine wa	5			
sewage tre	eatment plant (STP)	100 mg/l		

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1011g date 22.05.2025			01
			_
marine sediment	5.2 mg/kg	(Contd. of	bage
soil	4.59 mg/kg		
	4.00 mg/kg		
7440-50-8 copper freshwater	0.0079 mg/l		
	0.0078 mg/l		
marine water	0.0052 mg/l		
sewage treatment plant (ST			
freshwater sediment	87 mg/kg		
marine sediment	676 mg/kg		
soil	65.5 mg/kg		
Additional information: Th	ne lists valid during the making	were used as basis.	
Individual protection mease General protective and hy Do not eat, drink, smoke or Immediately remove all solid Wash hands before breaks Avoid contact with the eyes Do not inhale gases / fumese	sniff while working. ed and contaminated clothing and at the end of work. and skin. s / aerosols.		
Protective glove			
Due to missing tests no red mixture. Selection of the glove mater Material of gloves The selection of the suitabl from manufacturer to man material can not be calculat Penetration time of glove The exact break through tim	commendation to the glove matrial on consideration of the pen le gloves does not only deper ufacturer. As the product is a ed in advance and has therefo material he has to be found out by the m t gloves made of the followin f the material: ≥ 0.5 mm	the product/ the substance/ the preparation. aterial can be given for the product/ the preparation/ the che etration times, rates of diffusion and the degradation ad on the material, but also on further marks of quality and va a preparation of several substances, the resistance of the re to be checked prior to the application. manufacturer of the protective gloves and has to be observed. ng materials are suitable:	/arie
Tightly sealed g	goggles		
Physical and chemic			
	physical and chemical proper	ties	
General Information		Eluid	
Physical state Colour:		Fluid According to product specification	
Odour:		Ether-like	
Odour threshold:		Not determined.	
Melting point/freezing point	nt:	Undetermined.	
	ling point and boiling range	120 °C	
Flammability	5 , -	Flammable.	

Flammable.

1.5 Vol % 13.7 Vol %

Not determined.

Not determined.

Not determined.

Not determined.

Fully miscible.

Not determined.

31 °C 287 °C

· Flammability

Flash point:

· Dynamic:

Solubility · water:

· Lower:

· Upper:

рΗ

Lower and upper explosion limit

Ignition temperature: Decomposition temperature:

· Partition coefficient n-octanol/water (log value)

· Viscosity: · Kinematic viscosity

(Contd. on page 5) GB

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	(Contd. of page
Vapour pressure at 20 °C:	13.3 hPa
Density and/or relative density	
Density at 20 °C:	~1.1 g/cm³
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Fluid
Important information on protection of he	ealth and
environment, and on safety.	
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive ai
	vapour mixtures are possible.
Solvent content:	
Organic solvents:	63.4 %
Solids content:	36.5 %
Change in condition	
Evaporation rate	Not determined.
Information with regard to physical hazard cla	sses
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Flammable liquid and vapour.
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 flamma	
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

Printing date 22.03.2023

· 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:
 107-98-2 1-methoxy-2-propanol

) = b.eb	
Oral	LD50	4,016 mg/kg (rat) (EU B.1, ECHA)	
Dermal	LD50	13,000 mg/kg (rab)	
		>2,000 mg/kg (rat) (EU B.3, ECHA)	
Inhalative	LC50/4h	30.04 mg/m³ (rat) (ECHA)	
7440-50-8	copper		
Oral	LD50	500 mg/kg (ATE)	
· Skin corro	osion/irri	tation Based on available data, the classification criteria are not met.	
Serious e	ye damaq	ge/irritation	
Causes se	Causes serious eye irritation.		
 Respirato 	ry or skir	n sensitisation Based on available data, the classification criteria are not met.	
Germ cell	mutager	nicity Based on available data, the classification criteria are not met.	
· Carcinoge	Carcinogenicity Based on available data, the classification criteria are not met.		
· Reproduc	Reproductive toxicity Based on available data, the classification criteria are not met.		
STOT-sin	STOT-single exposure		
May cause	May cause drowsiness or dizziness.		

· STOT-repeated exposure Based on available data, the classification criteria are not met.

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(Contd. of page 5)

- 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

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· Aquatic toxicity:

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

LC50/96h 1,000 mg/l (oncorhynchus mykiss) (OECD 203)

- LC50/48h 21,100-25,900 mg/l (daphnia magna) (ESR-ES-15)
- ErC50 >1,000 mg/l /7d (pseudokirchneriella subcapitata) (ECHA)
- · 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: Toxic for fish
- Additional ecological information:
- · General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

- Danger to drinking water if even extremely small quantities leak into the ground.
- Also poisonous for fish and plankton in water bodies.
- Toxic for aquatic organisms

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.

· 14.1 UN number or ID number · ADR, IMDG, IATA	UN1263
· 14.2 UN proper shipping name · ADR · IMDG · IATA	1263 PAINT, ENVIRONMENTALLY HAZARDOUS PAINT (copper), MARINE POLLUTANT PAINT
• 14.3 Transport hazard class(es) • ADR, IMDG	
· Class · Label	3 Flammable liquids. 3
· Class · Label	3 Flammable liquids. 3
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant:	Symbol (fish and tree)

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Special marking (ADR):	(Contd. of page Symbol (fish and tree)
14.6 Special precautions for user	Warning: Flammable liquids.
Hazard identification number (Kemler code):	30
EMS Number:	F-E, <u>S-E</u>
· Stowage Category	A
· 14.7 Maritime transport in bulk according to IM	10
instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

· Directive 2012/18/EU

Printing date 22.03.2023

- · 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
- · 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

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- · 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

- VPVB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids Category 3 Acute Tox. 4: Acute toxicity Category 4 Eye Irrit. 2: Serious eye damage/eye irritation 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 2 Aquatic Chronic 2: Hazardous to the aquatic environment long-term aquatic hazard Category 2 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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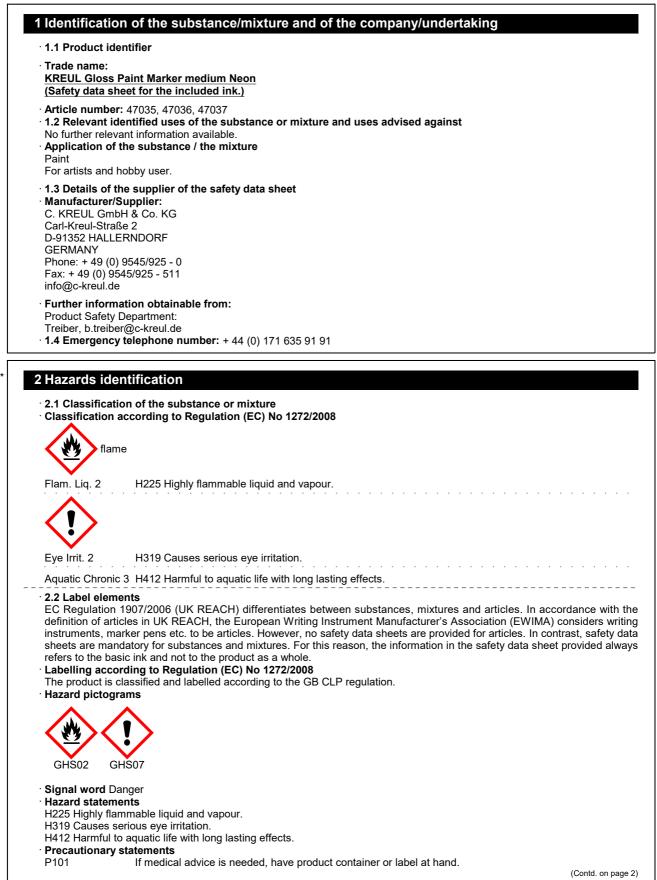
Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.03.2023

Version number 1.2 (replaces version 1.1)

Revision: 23.03.2023



Varsian number 1.2 (raplaces version 1.1)

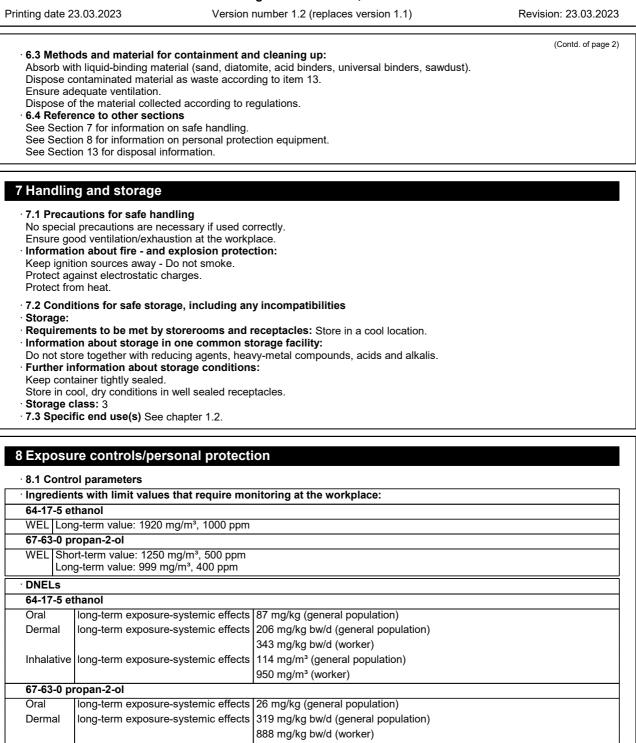
Povision: 23.03.2023

Printing date 23.03.2023	version number 1.2 (replaces version 1.1)	Revision: 23.03.2023
P280 Wear eye prote P305+P351+P338 IF IN EYES: R to do. Continue P403+P235 Store in a well- P501 Dispose of con Additional information:	n heat, hot surfaces, sparks, open flames and other ignition s action / face protection. Inse cautiously with water for several minutes. Remove conta rinsing. ventilated place. Keep cool. tents/container in accordance with local/regional/national/inte mino)-9-[2-(methoxycarbonyl)phenyl]-2,7-dimethylxanthyliu	act lenses, if present and easy
3 Composition/information 3.2 Mixtures Description: Mixture of substance Dangerous components:	on ingredients	
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	50-<75%
CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0	propan-2-ol Flam. Liq. 2, H225; () Eye Irrit. 2, H319; STOT SE 3, H	336 10-<20%
CAS: 3068-39-1 EINECS: 221-326-1 Reg.nr.: 01-2120107344-68-XXXX	3,6-bis(ethylamino)-9-[2-(methoxycarbonyl)phenyl]-2,7-d chloride ♦ Acute Tox. 2, H330; ♦ Eye Dam. 1, H318; ♦ Aquatic A Aquatic Chronic 1, H410; ♦ Acute Tox. 4, H302; Skin Sens	.cute 1. H400:
• Additional information: For the v	vording of the listed hazard phrases refer to section 16.	
 After inhalation: Supply fresh air. After skin contact: Wash with water and acidic soap. If skin irritation continues, consult After eye contact: Rinse opened eye for several mini Remove contact lenses. After swallowing: If symptoms persist consult docto Rinse out mouth and then drink pl 4.2 Most important symptoms a 	y remove any clothing soiled by the product. consult doctor in case of complaints. a doctor. utes under running water. enty of water. nd effects, both acute and delayed No further relevant infor medical attention and special treatment needed	rmation available.
5 Firefighting measures		
 5.1 Extinguishing media Suitable extinguishing agents: 0 For safety reasons unsuitable e 5.2 Special hazards arising from Formation of toxic gases is possib 5.3 Advice for firefighters Protective equipment: Mouth respiratory protective devic No special measures required. 	le during heating or in case of fire.	,
6 Accidental release measu	res	

6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
 6.2 Environmental precautions: Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)

- GB



 Inhalative
 long-term exposure-systemic effects
 89 mg/m³ (general population) 500 mg/m³ (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 67-63-0 propan-2-ol 140.9 mg/l freshwater marine water 140.9 mg/l sewage treatment plant (STP) 2,251 mg/l freshwater sediment 552 mg/kg marine sediment 552 mg/kg

(Contd. on page 4) GB

soil 28 mg/kg	
	(Contd. of pa
· Additional information: The lists valid during the making v	were used as basis.
 8.2 Exposure controls Appropriate engineering controls No further data; see ite Individual protection measures, such as personal protective and hygienic measures: Immediately remove all soiled and contaminated clothing 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: Use suitable respiratory protective Hand protection Protective gloves The glove material has to be impermeable and resistant to Due to missing tests no recommendation to the glove ma mixture. Selection of the gloves Material of gloves The selection of the suitable gloves does not only depend from manufacturer to manufacturer. As the product is a material can not be calculated in advance and has therefore 	em 7. ective equipment e device when high concentrations are present. the product/ the substance/ the preparation. terial can be given for the product/ the preparation/ the cheme etration times, rates of diffusion and the degradation d on the material, but also on further marks of quality and va preparation of several substances, the resistance of the gi e to be checked prior to the application. anufacturer of the protective gloves and has to be observed.
Value for the permeation: Level ≤ 8h • As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h • Eye/face protection Tightly sealed googles	ing materials are suitable:
 As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h Eye/face protection Tightly sealed goggles 	ing materials are suitable:
 As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h Eye/face protection Tightly sealed goggles 	ing materials are suitable:
 As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h Eye/face protection Tightly sealed goggles 9 Physical and chemical properties 9.1 Information on basic physical and chemical properties	
 As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h Eye/face protection Tightly sealed goggles 9 Physical and chemical properties 9.1 Information on basic physical and chemical properties 	ties
 As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h Eye/face protection Tightly sealed goggles 9 Physical and chemical properties 9.1 Information on basic physical and chemical properties General Information Physical state 	ties Fluid
 As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h Eye/face protection Tightly sealed goggles 9 Physical and chemical properties 9.1 Information on basic physical and chemical properties General Information Physical state Colour: 	ties Fluid According to product specification
 As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h Eye/face protection Tightly sealed goggles 9 Physical and chemical properties 9.1 Information on basic physical and chemical properties 9.1 Information on basic physical and chemical properties Colour: Odour: 	ties Fluid According to product specification Like alcohol
 As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h Eye/face protection Tightly sealed goggles 9 Physical and chemical properties 9.1 Information on basic physical and chemical properties General Information Physical state Colour: Odour threshold: 	ties Fluid According to product specification Like alcohol Not determined.
 As protection from splashes gloves made of the following Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.38 mm mm Value for the permeation: Level ≤ 2-4h Eye/face protection Tightly sealed goggles 9 Physical and chemical properties 9.1 Information on basic physical and chemical properties General Information Physical state Colour: Odour: Odour threshold: Melting point/freezing point: 	ties Fluid According to product specification Like alcohol Not determined. -114.5 °C
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9.2 Other information	
· Appearance:	
Form:	Fluid
 Important information on protection of he environment, and on safety. 	alth and
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive ai
L L . F	vapour mixtures are possible.
· Solvent content:	
· VOC (EC)	<89.00 %
· Change in condition	
· Evaporation rate	Not determined.
Information with regard to physical hazard cla	2022
· Explosives	Void
· Flammable gases	Void
	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Highly flammable liquid and vapour.
· 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 flammat	ble 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

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- · 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 r	elevant for	classification:
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64-17-5 et	thanol		
Oral	LD50	10,470 mg/kg (rat) (OECD 403)	
Dermal	LD50	>2,000 mg/kg (rat)	
		12,800 mg/kg (rabbit)	
Inhalative	LC50/4h	124.7 mg/m³ (rat) (OECD 403)	
67-63-0 pi	ropan-2-o	l	
Oral	LD50	5,045 mg/kg (rat)	
Dermal	LD50	12,800 mg/kg (rabbit)	
Inhalative	LC50/4h	30 mg/m³ (rat)	
3068-39-1	3,6-bis(e	thylamino)-9-[2-(methoxycarbonyl)phenyl]-2,7-dimethylxanthylium chloride	
Oral	LD50	500 mg/kg (ATE)	
Inhalative	LC50/4h	0.5 mg/m³ (ATE)	
Skin corrosion/irritation Based on available data, the classification criteria are not met. Serious eye damage/irritation Causes serious eye irritation.			
• 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.		
· Carcinog	· Carcinogenicity Based on available data, the classification criteria are not met.		
• Reproductive toxicity Based on available data, the classification criteria are not met.			
· STOT-sin	• 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.

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- · 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.

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12.1 Toxicity	
Aquatic toxicity:	

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•	
64-17-5 ethanol	
LC50/96h	14,200 mg/l (pimephales promelas) (US EPA method E03-0)
	13,000 mg/l (oncorhynchus mykiss)

LC50/48h	5,012 mg/l (ceriodaphnia dubia) (ASTM E729-80)
	5,012 mg/l (ceriodaphnia dubia) (ASTM E729-80) 12,340 mg/l (daphnia magna)
EC50/48h	12,900 mg/l (algae)
	>10,000 mg/l (ceriodaphnia dubia) (DIN 38412 Teil 11)
	9,950 mg/l (crustaceans)
EC50/96h	12,900 mg/l (pimephales promelas) (US EPA method E03-0)
NOEC	2 mg/l /10d (ceriodaphnia dubia) (ECHA)
	250 mg/l /120h (danio rerio) (OECD 212)

ErC50 275 mg/l /72h (algae) (OECD 201)

ErCx 10% 11.5 mg/l /3d (algae) (OECD 201)

LC50 1,806 mg/l /10d (ceriodaphnia dubia) (ECHA)

454 mg/l /9d (daphnia magna) (ECHA)

67-63-0 propan-2-ol

EC50/48h 10,100 mg/l (daphnia magna)

12.2 Persistence and degradability

67-63-0 propan-2-ol

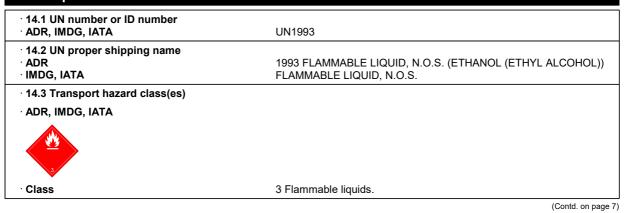
Biodegradability >70 % /10d

- 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 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



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Label	3
14.4 Packing group ADR, IMDG, IATA	I
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category	Warning: Flammable liquids. 33 F-E, <u>S-E</u> E
14.7 Maritime transport in bulk according to IM instruments	O Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ)	0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
Transport category Tunnel restriction code	1 D/E
IMDG Limited quantities (LQ) Excepted quantities (EQ)	0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHY ALCOHOL)), 3, III

15 Regulatory information

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

· Directive 2012/18/EU

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- · Named dangerous substances ANNEX I None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- 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

- H225 Highly flammable liquid and vapour.
- H302 Harmful if swallowed.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.

H410 Very 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
- ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) 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

- Flam. Liq. 2: Flammable liquids Category 2 Acute Tox. 4: Acute toxicity Category 4 Acute Tox. 2: Acute toxicity 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

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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 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3 • * Data compared to the previous version altered.

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