

Diese Datei enthält die Sicherheitsdatenblätter zu allen Farbtönen, Sets und Displays der KREUL Matt Spray. 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 for KREUL Matt Spray. 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 -
Handelsname / Trade name -

Bestandteile / Components:

-

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

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

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

· **1.1 Product identifier**

- Trade name: KREUL Matt Spray White 200 ml
KREUL Matt Spray Yellow 200 ml
KREUL Matt Spray Orange 200 ml
KREUL Matt Spray Pink 200 ml
KREUL Matt Spray Violet 200 ml
KREUL Matt Spray Light Blue 200 ml
KREUL Matt Spray Turquoise 200 ml
KREUL Matt Spray Green 200 ml
KREUL Matt Spray Gray 200 ml

- **Article number:** 76311, 76312, 76313, 76317, 76318, 76319, 76322, 76323, 76326
- **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**
Lacquer
For artists and hobby user.

· **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**
C. KREUL GmbH & Co. KG
Carl-Kreul-Straße 2
D-91352 HALLERNDORF
DEUTSCHLAND
Tel. + 49 (0)9545 / 925 - 0
Fax + 49 (0)9545 / 925 - 511
E-Mail: info@c-kreul.de

· **Further information obtainable from:**

- Product Safety Department:
Treiber, b.treiber@c-kreul.de

- **1.4 Emergency telephone number:** +44 (0)171 635 91 91

2 Hazards identification

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



flame

Aerosol 2 H223-H229 Flammable aerosol. Pressurised container: May burst if heated.

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



GHS02

- **Signal word** Warning
- **Hazard statements**
H223-H229 Flammable aerosol. Pressurised container: May burst if heated.

· **Precautionary statements**

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read carefully and follow all instructions.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P211 Do not spray on an open flame or other ignition source.
- P251 Do not pierce or burn, even after use.
- P260 Do not breathe spray.
- P271 Use only outdoors or in a well-ventilated area.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 1)

· **Additional information:**

EUH208 Contains 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

· **2.3 Other hazards**

Vapours may form explosive mixtures with air. This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/ electrical equipment). Take precautionary measures against static discharges.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

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

· **Dangerous components:**

CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8 Reg.nr.: 01-2119472128-37-XXXX	dimethyl ether ⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	25-<50%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43-XXXX	ethanol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319	10-<25%
CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-XXXX	titanium dioxide ⚠ Carc. 2, H351	1-<15%
CAS: 104-76-7 EINECS: 203-234-3	2-Ethyl-1-hexanol ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	<1%
CAS: 121-44-8 EINECS: 204-469-4 Index number: 612-004-00-5	triethylamine ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	<1%
CAS: 34590-94-8 EINECS: 252-104-2	Dipropylene glycol monomethyl ether substance with a Community workplace exposure limit	<1%
CAS: 55965-84-9 Index number: 613-167-00-5	5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) ⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317	<0.0015%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

· **4.1 Description of first aid measures**

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

Seek immediate medical advice.

· **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:**

Rinse out mouth and then drink plenty of water.

Administer medicinal carbon.

A person vomiting while laying on their back should be turned onto their side.

Seek immediate medical advice.

· **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**

If swallowed or in case of vomiting, danger of entering the lungs.

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

(Contd. on page 3)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 2)

- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Keep away from ignition sources.
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Keep contaminated washing water and dispose of appropriately.
In case of seepage into the ground inform responsible authorities.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Send for recovery or disposal in suitable receptacles.
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**
Prevent formation of aerosols.
Take note of emission threshold.
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Fumes can combine with air to form an explosive mixture.
Keep ignition sources away - Do not smoke.
Keep respiratory protective device available.
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:**
Do not store together with oxidising and acidic materials.
Do not store together with alkalis (caustic solutions).
- **Further information about storage conditions:**
Store receptacle in a well ventilated area.
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
Keep container tightly sealed.
- **7.3 Specific end use(s)** See chapter 1.2.

8 Exposure controls/personal protection

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

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

115-10-6 dimethyl ether	
WEL	Short-term value: 958 mg/m ³ , 500 ppm Long-term value: 766 mg/m ³ , 400 ppm
64-17-5 ethanol	
WEL	Long-term value: 1920 mg/m ³ , 1000 ppm
104-76-7 2-Ethyl-1-hexanol	
WEL	Long-term value: 5.4 mg/m ³ , 1 ppm
121-44-8 triethylamine	
WEL	Short-term value: 17 mg/m ³ , 4 ppm Long-term value: 8 mg/m ³ , 2 ppm
	Sk

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 3)

34590-94-8 Dipropylene glycol monomethyl ether

WEL	Long-term value: 308 mg/m ³ , 50 ppm
Sk	

· **DNELs****64-17-5 ethanol**

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

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

The usual precautionary measures are to be adhered to when handling chemicals.

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

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Not necessary if room is well-ventilated.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

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:**

PVC or PE gloves

Value for the permeation: Level ≤ 8 h

Recommended thickness of the material: ≥ - mm

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

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.4 mm

Value for the permeation: Level ≤ 120 - 240 min

· **Eye protection:** Safety glasses· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form:	Aerosol
Colour:	According to product specification
Odour:	Specific type
Odour threshold:	Not determined.

· **pH-value:** Not determined.· **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Not applicable, as aerosol.

· **Flash point:** -41 °C· **Flammability (solid, gas):** Not applicable.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 4)

· Ignition temperature:	240 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	3.3 Vol %
Upper:	23.5 Vol %
· Vapour pressure at 50 °C:	<3,000 hPa
· Density at 20 °C:	0.893 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Not determined.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC (EC)	51.45 %
· 9.2 Other information	No further relevant information available.

10 Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid**
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
- **10.5 Incompatible materials:** Keep away from oxidizing agents, strong alkaline and acidic materials.
- **10.6 Hazardous decomposition products:**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

115-10-6 dimethyl ether

Inhalative	LC50/4h	308 mg/m ³ (rat)
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64-17-5 ethanol

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

13463-67-7 titanium dioxide

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

104-76-7 2-Ethyl-1-hexanol

Oral	LD50	2,049 mg/kg (rat)
Dermal	LD50	1,970 mg/kg (rabbit)
Inhalative	LC50/4h	11 mg/m ³ (ATE)

121-44-8 triethylamine

Oral	LD50	460 mg/kg (rat)
Dermal	LD50	570 mg/kg (rabbit)
Inhalative	LC50/4h	3 mg/m ³ (ATE)

34590-94-8 Dipropylene glycol monomethyl ether

Oral	LD50	5,135 mg/kg (rat)
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(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 5)

Dermal	LD50	>19,000 mg/kg (rab)
55965-84-9 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)		
Oral	LD50	64 mg/kg (rat)
Dermal	LD50	78 mg/kg (rab)
Inhalative	LC50/4h	0.05 mg/m ³ (ATE)
	LC50/4h	0.33 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information

12.1 Toxicity

Aquatic toxicity:

115-10-6 dimethyl ether

LC50/96h	>4,000 mg/l (fish)
LC50/48h	>4,000 mg/l (daphnia magna)
EC50/96h	155 mg/l (algae)

64-17-5 ethanol

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

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

LC50/96h	0.19 mg/l (oncorhynchus mykiss)
EC50/48h	0.16 mg/l (daphnia magna)
EC50/72h	0.027 mg/l (pseudokirchneriella subcapitata)
NOEC	0.1 mg/l (daphnia magna)
	0.05 mg/l (oncorhynchus mykiss)

- **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.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** 1950 AEROSOLS
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, flammable

(Contd. on page 7)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 6)

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 2.5F Gases.
 · **Label** 2.1

· **IMDG, IATA**



· **Class** 2.1
 · **Label** 2.1

· **14.4 Packing group**

· **ADR, IMDG, IATA** not regulated

· **14.5 Environmental hazards:** Not applicable.

· **14.6 Special precautions for user**

· **Hazard identification number (Kemler code):**
 · **EMS Number:**
 · **Stowage Code**

Warning: Gases.

-

F-D,S-U

SW1 Protected from sources of heat.

SW22 For AEROSOLS with a maximum capacity of 1 litre:
 Category A. For AEROSOLS with a capacity above 1 litre:
 Category B. For WASTE AEROSOLS: Category C, Clear of living
 quarters.

· **Segregation Code**

SG69 For AEROSOLS with a maximum capacity of 1 litre:
 Segregation as for class 9. Stow "separated from" class 1 except
 for division 1.4.
 For AEROSOLS with a capacity above 1 litre:
 Segregation as for the appropriate subdivision of class 2.
 For WASTE AEROSOLS:
 Segregation as for the appropriate subdivision of class 2.

· **14.7 Transport in bulk according to Annex II of Marpol
 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)** 1L
 · **Excepted quantities (EQ)** Code: E0
 Not permitted as Excepted Quantity
 · **Transport category** 2
 · **Tunnel restriction code** D

· **IMDG**

· **Limited quantities (LQ)** 1L
 · **Excepted quantities (EQ)** Code: E0
 Not permitted as Excepted Quantity

· **UN "Model Regulation":** UN 1950 AEROSOLS, 2.1

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** P3a FLAMMABLE AEROSOLS
 · **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
 · **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

· **National regulations:**

· **Other regulations, limitations and prohibitive regulations**
 · **Substances of very high concern (SVHC) according to REACH, Article 57 -**

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

GB
(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 7)

16 Other information

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

· **Relevant phrases**

H220 Extremely flammable gas.
 H225 Highly flammable liquid and vapour.
 H280 Contains gas under pressure; may explode if heated.
 H301 Toxic if swallowed.
 H302 Harmful if swallowed.
 H310 Fatal in contact with skin.
 H311 Toxic in contact with skin.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H330 Fatal if inhaled.
 H331 Toxic if inhaled.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H351 Suspected of causing cancer.
 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)
 VOC: Volatile Organic Compounds (USA, EU)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 SVHC: Substances of Very High Concern
 vPvB: very Persistent and very Bioaccumulative
 Flam. Gas 1A: Flammable gases – Category 1A
 Aerosol 2: Aerosols – Category 2
 Press. Gas (Comp.): Gases under pressure – Compressed gas
 Flam. Liq. 2: Flammable liquids – Category 2
 Acute Tox. 2: Acute toxicity – Category 2
 Acute Tox. 3: Acute toxicity – Category 3
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Corr. 1A: Skin corrosion/irritation – Category 1A
 Skin Corr. 1C: Skin corrosion/irritation – Category 1C
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 Skin Sens. 1A: Skin sensitisation – Category 1A
 Carc. 2: Carcinogenicity – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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

GB

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

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

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

- **1.1 Product identifier**
- **Trade name:** KREUL Matt Spray Brilliant Red 200 ml
KREUL Matt Spray Dark Red 200 ml
KREUL Matt Spray Wine Red 200 ml
KREUL Matt Spray Blue 200 ml
KREUL Matt Spray Cobalt Blue 200 ml
KREUL Matt Spray Fir Green 200 ml
KREUL Matt Spray Maroon Brown 200 ml
KREUL Matt Spray Black 200 ml
- **Article number:** 76314, 76315, 76316, 76320, 76321, 76324, 76325, 76327
- **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**
Lacquer
For artists and hobby user.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
C. KREUL GmbH & Co. KG
Carl-Kreul-Straße 2
D-91352 HALLERNDORF
DEUTSCHLAND
Tel. + 49 (0)9545 / 925 - 0
Fax + 49 (0)9545 / 925 - 511
E-Mail: info@c-kreul.de
- **Further information obtainable from:**
Product Safety Department:
Treiber, b.treiber@c-kreul.de
- **1.4 Emergency telephone number:** +44 (0)171 635 91 91

2 Hazards identification

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



flame

Aerosol 2 H223-H229 Flammable aerosol. Pressurised container: May burst if heated.

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



GHS02

- **Signal word** Warning
 - **Hazard statements**
H223-H229 Flammable aerosol. Pressurised container: May burst if heated.
 - **Precautionary statements**
- | | |
|-----------|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P103 | Read carefully and follow all instructions. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P260 | Do not breathe spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 1)

· **Additional information:**

EUH208 Contains 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

· **2.3 Other hazards**

Vapours may form explosive mixtures with air. This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/ electrical equipment). Take precautionary measures against static discharges.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

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

· **Dangerous components:**

CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8 Reg.nr.: 01-2119472128-37-XXXX	dimethyl ether ⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	25-<50%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43-XXXX	ethanol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319	10-<25%
CAS: 104-76-7 EINECS: 203-234-3	2-Ethyl-1-hexanol ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	<1%
CAS: 121-44-8 EINECS: 204-469-4 Index number: 612-004-00-5	triethylamine ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	<1%
CAS: 34590-94-8 EINECS: 252-104-2	Dipropylene glycol monomethyl ether substance with a Community workplace exposure limit	<1%
CAS: 55965-84-9 Index number: 613-167-00-5	5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) ⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317	<0.0015%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

· **4.1 Description of first aid measures**

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

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

Seek immediate medical advice.

· **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:**

Rinse out mouth and then drink plenty of water.

Administer medicinal carbon.

A person vomiting while laying on their back should be turned onto their side.

Seek immediate medical advice.

· **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**

If swallowed or in case of vomiting, danger of entering the lungs.

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:** Wear self-contained respiratory protective device.

(Contd. on page 3)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

· **Additional information** Cool endangered receptacles with water spray.

(Contd. of page 2)

6 Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

- Ensure adequate ventilation
- Use respiratory protective device against the effects of fumes/dust/aerosol.
- Keep away from ignition sources.
- Mount respiratory protective device.
- Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

- Keep contaminated washing water and dispose of appropriately.
- 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).
- Send for recovery or disposal in suitable receptacles.
- 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**

- Prevent formation of aerosols.
- Take note of emission threshold.
- Keep away from heat and direct sunlight.
- Ensure good ventilation/exhaustion at the workplace.

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

- Do not spray onto a naked flame or any incandescent material.
- Fumes can combine with air to form an explosive mixture.
- Keep ignition sources away - Do not smoke.
- Keep respiratory protective device available.
- Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

- Observe official regulations on storing packagings with pressurised containers.

· **Information about storage in one common storage facility:**

- Do not store together with oxidising and acidic materials.
- Do not store together with alkalis (caustic solutions).

· **Further information about storage conditions:**

- Store receptacle in a well ventilated area.
- Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
- Keep container tightly sealed.

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

8 Exposure controls/personal protection

· **8.1 Control parameters**

· **Additional information about design of technical facilities:** No further data; see item 7.

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

115-10-6 dimethyl ether

WEL	Short-term value: 958 mg/m ³ , 500 ppm
	Long-term value: 766 mg/m ³ , 400 ppm

64-17-5 ethanol

WEL	Long-term value: 1920 mg/m ³ , 1000 ppm
-----	--

104-76-7 2-Ethyl-1-hexanol

WEL	Long-term value: 5.4 mg/m ³ , 1 ppm
-----	--

121-44-8 triethylamine

WEL	Short-term value: 17 mg/m ³ , 4 ppm
	Long-term value: 8 mg/m ³ , 2 ppm
Sk	

34590-94-8 Dipropylene glycol monomethyl ether

WEL	Long-term value: 308 mg/m ³ , 50 ppm
Sk	

(Contd. on page 4)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 3)

· **DNELs****64-17-5 ethanol**

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

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

The usual precautionary measures are to be adhered to when handling chemicals.

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

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Not necessary if room is well-ventilated.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

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:**

PVC or PE gloves

Value for the permeation: Level \leq 8 hRecommended thickness of the material: \geq - mm· **As protection from splashes gloves made of the following materials are suitable:**

Butyl rubber, BR

Recommended thickness of the material: \geq 0.4 mmValue for the permeation: Level \leq 120 - 240 min· **Eye protection:** Safety glasses· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· Form:	Aerosol
· Colour:	According to product specification
· Odour:	Specific type
· Odour threshold:	Not determined.

· **pH-value:** Not determined.· **Change in condition**

· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	Not applicable, as aerosol.

· **Flash point:** -25 °C· **Flammability (solid, gas):** Not applicable.· **Ignition temperature:** 240 °C· **Decomposition temperature:** Not determined.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 4)

· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	3.3 Vol %
Upper:	23.5 Vol %
· Vapour pressure at 50 °C:	<3,000 hPa
· Density at 20 °C:	0.846 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Not determined.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC (EC)	52.82 %
· 9.2 Other information	No further relevant information available.

10 Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid**
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
- **10.5 Incompatible materials:** Keep away from oxidizing agents, strong alkaline and acidic materials.
- **10.6 Hazardous decomposition products:**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:		
115-10-6 dimethyl ether		
Inhalative	LC50/4h	308 mg/m ³ (rat)
64-17-5 ethanol		
Oral	LD50	7,060 mg/kg (rat)
Dermal	LD50	12,800 mg/kg (rabbit)
Inhalative	LC50/4h	20,000 mg/m ³ (rat)
104-76-7 2-Ethyl-1-hexanol		
Oral	LD50	2,049 mg/kg (rat)
Dermal	LD50	1,970 mg/kg (rabbit)
Inhalative	LC50/4h	11 mg/m ³ (ATE)
121-44-8 triethylamine		
Oral	LD50	460 mg/kg (rat)
Dermal	LD50	570 mg/kg (rabbit)
Inhalative	LC50/4h	3 mg/m ³ (ATE)
34590-94-8 Dipropylene glycol monomethyl ether		
Oral	LD50	5,135 mg/kg (rat)
Dermal	LD50	>19,000 mg/kg (rab)
55965-84-9 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)		
Oral	LD50	64 mg/kg (rat)
Dermal	LD50	78 mg/kg (rab)
Inhalative	LC50/4h	0.05 mg/m ³ (ATE)
	LC50/4h	0.33 mg/l (rat)

(Contd. on page 6)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 5)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information

12.1 Toxicity

· Aquatic toxicity:

115-10-6 dimethyl ether

LC50/96h	>4,000 mg/l (fish)
LC50/48h	>4,000 mg/l (daphnia magna)
EC50/96h	155 mg/l (algae)

64-17-5 ethanol

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

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

LC50/96h	0.19 mg/l (oncorhynchus mykiss)
EC50/48h	0.16 mg/l (daphnia magna)
EC50/72h	0.027 mg/l (pseudokirchneriella subcapitata)
NOEC	0.1 mg/l (daphnia magna)
	0.05 mg/l (oncorhynchus mykiss)

- **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.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· 14.1 UN-Number

· **ADR, IMDG, IATA** UN1950

· 14.2 UN proper shipping name

· **ADR** 1950 AEROSOLS
 · **IMDG** AEROSOLS
 · **IATA** AEROSOLS, flammable

· 14.3 Transport hazard class(es)

· ADR



· **Class** 2 5F Gases.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 6)

· Label 2.1

· IMDG, IATA



· Class 2.1
 · Label 2.1

· 14.4 Packing group
 · ADR, IMDG, IATA not regulated

· 14.5 Environmental hazards: Not applicable.

· 14.6 Special precautions for user Warning: Gases.
 · Hazard identification number (Kemler code): -
 · EMS Number: F-D,S-U
 · Stowage Code SW1 Protected from sources of heat.
 SW22 For AEROSOLS with a maximum capacity of 1 litre:
 Category A. For AEROSOLS with a capacity above 1 litre:
 Category B. For WASTE AEROSOLS: Category C, Clear of living
 quarters.
 SG69 For AEROSOLS with a maximum capacity of 1 litre:
 Segregation as for class 9. Stow "separated from" class 1 except
 for division 1.4.
 For AEROSOLS with a capacity above 1 litre:
 Segregation as for the appropriate subdivision of class 2.
 For WASTE AEROSOLS:
 Segregation as for the appropriate subdivision of class 2.

· Segregation Code

· 14.7 Transport in bulk according to Annex II of Marpol
 and the IBC Code Not applicable.

· Transport/Additional information:

· ADR
 · Limited quantities (LQ) 1L
 · Excepted quantities (EQ) Code: E0
 Not permitted as Excepted Quantity
 · Transport category 2
 · Tunnel restriction code D

· IMDG
 · Limited quantities (LQ) 1L
 · Excepted quantities (EQ) Code: E0
 Not permitted as Excepted Quantity

· UN "Model Regulation": UN 1950 AEROSOLS, 2.1

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 P3a FLAMMABLE AEROSOLS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- National regulations:
- Other regulations, limitations and prohibitive regulations
- Substances of very high concern (SVHC) according to REACH, Article 57 -
- 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
- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H310 Fatal in contact with skin.
- H311 Toxic in contact with skin.

(Contd. on page 8)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2021

Version number 3.0

Revision: 17.05.2021

(Contd. of page 7)

H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H330 Fatal if inhaled.
 H331 Toxic if inhaled.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 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)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1A: Flammable gases – Category 1A

Aerosol 2: Aerosols – Category 2

Press. Gas (Comp.): Gases under pressure – Compressed gas

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 2: Acute toxicity – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

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

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

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

Skin Sens. 1A: Skin sensitisation – Category 1A

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.**

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2021

Version number 3.0

Revision: 11.05.2021

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

- **1.1 Product identifier**
- **Trade name:** KREUL Matt Spray Silver 200 ml
KREUL Matt Spray Gold 200 ml
- **Article number:** 76361, 76362
- **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**
Lacquer
For artists and hobby user.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
C. KREUL GmbH & Co. KG
Carl-Kreul-Straße 2
D-91352 HALLERNDORF
DEUTSCHLAND
Tel. + 49 (0)9545 / 925 - 0
Fax + 49 (0)9545 / 925 - 511
E-Mail: info@c-kreul.de
- **Further information obtainable from:**
Product Safety Department:
Treiber, b.treiber@c-kreul.de
- **1.4 Emergency telephone number:** +44 (0)171 635 91 91

2 Hazards identification

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



Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

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



GHS02

- **Signal word** Danger
- **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
- **Precautionary statements**
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.
 - P103 Read carefully and follow all instructions.
 - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P211 Do not spray on an open flame or other ignition source.
 - P251 Do not pierce or burn, even after use.
 - P260 Do not breathe spray.
 - P271 Use only outdoors or in a well-ventilated area.
 - P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**
EUH208 Contains 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2021

Version number 3.0

Revision: 11.05.2021

· **vPvB:** Not applicable.

(Contd. of page 1)

3 Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

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

· **Dangerous components:**

CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8 Reg.nr.: 01-2119472128-37-XXXX	dimethyl ether ⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	25-<50%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43-XXXX	ethanol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319	10-<25%
CAS: 12001-26-2	Mica substance with a Community workplace exposure limit	2.5-<10%
CAS: 121-44-8 EINECS: 204-469-4 Index number: 612-004-00-5	triethylamine ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	<1%
CAS: 55965-84-9 Index number: 613-167-00-5	5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) ⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317	<0.0015%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

· 4.1 Description of first aid measures

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

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

Seek immediate medical advice.

· **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:**

Rinse out mouth and then drink plenty of water.

Administer medicinal carbon.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

A person vomiting while laying on their back should be turned onto their side.

· **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**

If swallowed or in case of vomiting, danger of entering the lungs.

5 Firefighting measures

· 5.1 Extinguishing media

· **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· 5.2 Special hazards arising from the substance or mixture

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

· 5.3 Advice for firefighters

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

· **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

Keep away from ignition sources.

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Keep contaminated washing water and dispose of appropriately.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2021

Version number 3.0

Revision: 11.05.2021

(Contd. of page 2)

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).

Send for recovery or disposal in suitable receptacles.

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**

Take note of emission threshold.

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

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

Do not spray onto a naked flame or any incandescent material.

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Keep respiratory protective device available.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Observe official regulations on storing packagings with pressurised containers.

· **Information about storage in one common storage facility:**

Do not store together with oxidising and acidic materials.

Do not store together with alkalis (caustic solutions).

· **Further information about storage conditions:**

Store receptacle in a well ventilated area.

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

Keep container tightly sealed.

Protect from frost.

Protect from heat and direct sunlight.

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

8 Exposure controls/personal protection

· **8.1 Control parameters**

· **Additional information about design of technical facilities:** No further data; see item 7.

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

115-10-6 dimethyl ether

WEL Short-term value: 958 mg/m³, 500 ppm

Long-term value: 766 mg/m³, 400 ppm

64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

12001-26-2 Mica

WEL Long-term value: 10* 0.8** mg/m³

*total inhalable **respirable

121-44-8 triethylamine

WEL Short-term value: 17 mg/m³, 4 ppm

Long-term value: 8 mg/m³, 2 ppm

Sk

· **DNELs**

64-17-5 ethanol

Oral long-term exposure-systemic effects 87 mg/kg (general population)

Dermal long-term exposure-systemic effects 206 mg/kg bw/d (general population)

343 mg/kg bw/d (worker)

Inhalative long-term exposure-systemic effects 114 mg/m³ (general population)

950 mg/m³ (worker)

· **PNECs**

64-17-5 ethanol

water 2.75 mg/l

freshwater 0.96 mg/l

marine water 0.79 mg/l

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2021

Version number 3.0

Revision: 11.05.2021

(Contd. of page 3)

sewage treatment plant (STP)	580 mg/l
freshwater sediment	3.6 mg/kg
soil	0.63 mg/kg

· **Ingredients with biological limit values:** -

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

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

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

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Not necessary if room is well-ventilated.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

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:**

PVC or PE gloves

Value for the permeation: Level \leq 8 h

Recommended thickness of the material: \geq - mm

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

Butyl rubber, BR

Recommended thickness of the material: \geq 0.4 mm

Value for the permeation: Level \leq 120 - 240 min

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· **Form:** Aerosol

· **Colour:** According to product specification

· **Odour:** Specific type

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· **Melting point/freezing point:** Undetermined.

· **Initial boiling point and boiling range:** Not applicable, as aerosol.

· **Flash point:** -25 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 240 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

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

· **Explosion limits:**

· **Lower:** Not determined.

· **Upper:** Not determined.

· **Vapour pressure at 50 °C:** <3,000 hPa

· **Density at 20 °C:** 0.802 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not applicable.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2021

Version number 3.0

Revision: 11.05.2021

(Contd. of page 4)

· Solubility in / Miscibility with water:	Not determined.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC (EC)	62.37 %
· 9.2 Other information	No further relevant information available.

10 Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid**
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
- **10.5 Incompatible materials:** Keep away from oxidizing agents, strong alkaline and acidic materials.
- **10.6 Hazardous decomposition products:**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

115-10-6 dimethyl ether

Inhalative	LC50/4h	308 mg/m ³ (rat)
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64-17-5 ethanol

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

121-44-8 triethylamine

Oral	LD50	460 mg/kg (rat)
Dermal	LD50	570 mg/kg (rabbit)
Inhalative	LC50/4h	3 mg/m ³ (ATE)

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

Oral	LD50	64 mg/kg (rat)
Dermal	LD50	78 mg/kg (rab)
Inhalative	LC50/4h	0.05 mg/m ³ (ATE)
	LC50/4h	0.33 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

115-10-6 dimethyl ether

LC50/96h	>4,000 mg/l (fish)
LC50/48h	>4,000 mg/l (daphnia magna)

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2021

Version number 3.0

Revision: 11.05.2021

(Contd. of page 5)

EC50/96h	155 mg/l (algae)
64-17-5 ethanol	
LC50/96h	11,000 mg/l (fish)
LC50/48h	5,012 mg/l (daphnia)
EC50/48h	9,950 mg/l (crustaceans)
55965-84-9 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	
LC50/96h	0.19 mg/l (oncorhynchus mykiss)
EC50/48h	0.16 mg/l (daphnia magna)
EC50/72h	0.027 mg/l (pseudokirchneriella subcapitata)
NOEC	0.1 mg/l (daphnia magna)
	0.05 mg/l (oncorhynchus mykiss)

- **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.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN1950
· 14.2 UN proper shipping name · ADR · IMDG, IATA	1950 AEROSOLS AEROSOLS
· 14.3 Transport hazard class(es) · ADR	
· Class · Label	2 5F Gases. 2.1
· IMDG, IATA	
· Class · Label	2 Gases. 2.1
· 14.4 Packing group · ADR, IMDG, IATA	not regulated
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Code	Warning: Gases. - F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2021

Version number 3.0

Revision: 11.05.2021

(Contd. of page 6)

	For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	

· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D

· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

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 P3a** FLAMMABLE AEROSOLS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57 -**
- **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**

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H310 Fatal in contact with skin.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H331 Toxic if inhaled.
- 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)
- VOC: Volatile Organic Compounds (USA, EU)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Flam. Gas 1A: Flammable gases – Category 1A
- Aerosol 1: Aerosols – Category 1
- Press. Gas (Comp.): Gases under pressure – Compressed gas

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2021

Version number 3.0

Revision: 11.05.2021

(Contd. of page 7)

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

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

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