

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

Printing date 08.01.2019

Version number 1.0

Revision: 08.01.2019

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

- **1.1 Product identifier**
- **Trade name: KREUL Fixing Spray Matt 150 ml**
- **Article number:** 812150
- **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**



GHS02 flame

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



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

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

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Hazard pictograms



GHS02 GHS05 GHS07 GHS09

Signal word Danger

Hazard-determining components of labelling:

butan-1-ol

Hazard statements

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

H315 Causes skin irritation.

H318 Causes serious eye damage.

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.

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.

P280 Wear eye protection / face 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.

P310 Immediately call a POISON CENTER/doctor.

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.

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 1, H220; Press. Gas C, H280	25-<50%
EC number: 921-024-6 Reg.nr.: 01-2119475514-35-XXXX	hydrocarbons, C6-C7 ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	12.5-<20%
CAS: 71-36-3 EINECS: 200-751-6 Index number: 603-004-00-6 Reg.nr.: 01-2119484630-38-XXXX	butan-1-ol ⚠ Flam. Liq. 3, H226; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	5-<10%
CAS: 64742-48-9 EINECS: 265-150-3 Index number: 649-327-00-6 Reg.nr.: 01-2119486659-16-XXXX	Naphtha (petroleum), hydrotreated heavy ⚠ Asp. Tox. 1, H304	5-<10%
EC number: 920-750-0 Reg.nr.: 01-2119473851-33-XXXX	hydrocarbons C7-C9, n-alkanes, isoalkanes, cyclenes ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	5-<10%
EC number: 920-750-0 Reg.nr.: 01-2119473851-33-XXXX	hydrocarbons, C7-C9 ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	2.5-<5%

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EC number: 926-605-8 Reg.nr.: 01-2119473851-33-XXXX	hydrocarbons, C6-C7 ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	2.5–<5%
CAS: 110-82-7 EINECS: 203-806-2 Index number: 601-017-00-1	cyclohexane ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	2.5–<5%
CAS: 110-54-3 EINECS: 203-777-6 Index number: 601-037-00-0	n-hexane ⚠ Flam. Liq. 2, H225; ⚠ Repr. 2, H361f; STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	≤0.5%
CAS: 79-41-4 EINECS: 201-204-4 Index number: 607-088-00-5 Reg.nr.: 01-2119463884-26-XXXX	methacrylic acid ⚠ Acute Tox. 3, H311; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H335	≤0.5%
CAS: 97-88-1 EINECS: 202-615-1 Index number: 607-033-00-5 Reg.nr.: 01-2119486394-28-XXXX	n-butyl methacrylate ⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	≤0.5%

· **Additional information:**
Benzene (EINECS 200-753-7) <0.1%. (Note P Annex VI to Directive (EC) No 1272/2008)
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:**

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

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

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

Remove contact lenses.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

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**

No further relevant information available.

5 Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fire with alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

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

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

During heating or in case of fire poisonous gases are produced.

· **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**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

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Do not allow to enter sewers/ surface or ground water.

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

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

· **6.4 Reference to other sections**

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

7 Handling and storage

· **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.
Use only in well ventilated areas.

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

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.
Keep ignition sources away - Do not smoke.
Keep respiratory protective device available.
Do not spray onto a naked flame or any incandescent material.

· **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:** Not required.

· **Further information about storage conditions:**

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

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

8 Exposure controls/personal protection

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

· **8.1 Control parameters**

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

115-10-6 dimethyl ether

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

71-36-3 butan-1-ol

WEL	Short-term value: 154 mg/m ³ , 50 ppm
	Sk

110-82-7 cyclohexane

WEL	Short-term value: 1050 mg/m ³ , 300 ppm
	Long-term value: 350 mg/m ³ , 100 ppm

110-54-3 n-hexane

WEL	Long-term value: 72 mg/m ³ , 20 ppm
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79-41-4 methacrylic acid

WEL	Short-term value: 143 mg/m ³ , 40 ppm
	Long-term value: 72 mg/m ³ , 20 ppm

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

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

· **Respiratory protection:**

Filter AX

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Not necessary if room is well-ventilated.

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

· **Protection of hands:**



Protective gloves

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

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

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **For the permanent contact gloves made of the following materials are suitable:**

PVC or PE gloves

Recommended thickness of the material: \geq - mm

Value for the permeation: Level \leq 8 h

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

Butyl rubber, BR

Recommended thickness of the material: \geq 0.4 mm

Value for the permeation: Level \leq 2-4 h

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Aerosol
Colour:	Colourless
Odour:	Characteristic
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:** Not applicable, as aerosol.

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

· **Ignition temperature:** 235 °C

· **Decomposition temperature:** Not determined.

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

· **Explosive properties:** Not determined.

· **Explosion limits:**

Lower:	3 Vol %
Upper:	18.6 Vol %

· **Vapour pressure at 20 °C:** 5.2 hPa

· **Density at 20 °C:** 0.73 g/cm³

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· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	79.5 %
VOC (EC)	79.50 %
· Solids content:	12.2 %
· 9.2 Other information	No further relevant information available.

10 Stability and reactivity

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

11 Toxicological information

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

· LD/LC50 values relevant for classification:

hydrocarbons, C6-C7

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4h	>20 mg/m ³ (rat)

71-36-3 butan-1-ol

Oral	LD50	790 mg/kg (rat)
Dermal	LD50	3,400 mg/kg (rabbit)
Inhalative	LC50/4h	8,000 mg/m ³ (rat)

64742-48-9 Naphtha (petroleum), hydrotreated heavy

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>3,000 mg/kg (rab)

hydrocarbons C7-C9, n-alkanes, isoalkanes, cyclenes

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4h	>20,000 mg/m ³ (rat)

hydrocarbons, C7-C9

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,800 mg/kg (rat)
Inhalative	LC50/4h	22 mg/m ³ (rat)

110-82-7 cyclohexane

Oral	LD50	12,705 mg/kg (rat)
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79-41-4 methacrylic acid

Oral	LD50	1,332 mg/kg (mouse)
Dermal	LD50	500 mg/kg (rabbit)

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97-88-1 n-butyl methacrylate

Oral	LD50	22,600 mg/kg (rat)
Dermal	LD50	11,300 mg/kg (rabbit)
Inhalative	LC50/4h	4,910 mg/m ³ (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information· **12.1 Toxicity**· **Aquatic toxicity:****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)

hydrocarbons, C6-C7

LC50/96h	11.4 mg/l (oncorhynchus mykiss)
EC50/72h	30 mg/l (pseudokirchneriella subcapitata)
EC50/48h	3 mg/l (daphnia magna)

71-36-3 butan-1-ol

LC50/96h	1,376 mg/l (fish)
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hydrocarbons C7-C9, n-alkanes, isoalkanes, cyclenes

EC50	50 mg/l (algae)
	5 mg/l (fish)

hydrocarbons, C7-C9

LC50/96h	>13.4 mg/l (oncorhynchus mykiss)
LC50/48h	3 mg/l (daphnia magna)
LC50/72h	20 mg/l (pseudokirchneriella subcapitata)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**· **Remark:** Toxic for fish· **Additional ecological information:**· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

· **12.5 Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **12.6 Other adverse effects** No further relevant information available.

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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.

- **European waste catalogue**

08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
15 01 10*	packaging containing residues of or contaminated by hazardous substances
15 01 04	metallic packaging
HP 3	Flammable
HP 4	Irritant - skin irritation and eye damage
HP 14	Ecotoxic

- **Uncleaned packaging:**

- **Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information

- **14.1 UN-Number**

- **ADR, IMDG, IATA**

UN1950

- **14.2 UN proper shipping name**

- **ADR**

- **IMDG**

- **IATA**

1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS AEROSOLS (Hydrocarbons C7-C9, n-alkanes, isoalkanes, cyclenes, Hydrocarbons, C7-C9), MARINE POLLUTANT AEROSOLS, flammable

- **14.3 Transport hazard class(es)**

- **ADR**



- **Class**

2 5F Gases.

- **Label**

2.1

- **IMDG**



- **Class**

2.1

- **Label**

2.1

- **IATA**



- **Class**

2.1

- **Label**

2.1

- **14.4 Packing group**

- **ADR, IMDG, IATA**

not regulated

- **14.5 Environmental hazards:**

Product contains environmentally hazardous substances: hydrocarbons C7-C9, n-alkanes, isoalkanes, cyclenes

- **Marine pollutant:**

Symbol (fish and tree)

- **Special marking (ADR):**

Symbol (fish and tree)

- **14.6 Special precautions for user**

Warning: Gases.

- **Danger code (Kemler):**

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H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H361f Suspected of damaging fertility.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:** Product Safety Department

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

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 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 1: Flammable gases – Category 1
 Aerosol 1: Aerosols – Category 1
 Press. Gas C: Gases under pressure – Compressed gas
 Flam. Liq. 2: Flammable liquids – Category 2
 Flam. Liq. 3: Flammable liquids – Category 3
 Acute Tox. 4: Acute toxicity – Category 4
 Acute Tox. 3: Acute toxicity – Category 3
 Skin Corr. 1A: Skin corrosion/irritation – Category 1A
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Repr. 2: Reproductive toxicity – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 Asp. Tox. 1: Aspiration hazard – Category 1
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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