

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

Printing date 12.07.2023

Version number 1.1 (replaces version 1.0)

Revision: 12.07.2023

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

- **1.1 Product identifier**
- Trade name: **KREUL Varnish gloss 150 ml, 400 ml**
- Article number: 811150, 823400
- **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
GERMANY
Phone: + 49 (0) 9545/925 - 0
Fax: + 49 (0) 9545/925 - 511
info@c-kreul.de
- **Further information obtainable from:**
Product Safety Department:
Treiber, b.treiber@c-kreul.de
- **1.4 Emergency telephone number:** + 44 (0) 171 635 91 91

2 Hazards identification

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



flame

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



environment

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



Eye Irrit. 2 H319 Causes serious eye 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 GB CLP regulation.
- **Hazard pictograms**



GHS02



GHS07



GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**
hydrocarbons C7-C9, n-alkanes, isoalkanes, cyclenes
hydrocarbons C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics
hydrocarbons C6-C7, isoalkanes, cyclenes, <5% n-hexane
- **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H319 Causes serious eye irritation.

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- 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.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 P501 Dispose of contents/container in accordance with regional regulations.

Additional information:

- EUH066 Repeated exposure may cause skin dryness or cracking.
 Buildup of explosive mixtures possible without sufficient ventilation.

2.3 Other hazards

Results of PBT and vPvB assessment

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

3 Composition/information on ingredients

3.2 Mixtures

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

Dangerous components:

CAS: 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%
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, EUH066	25-<50%
EC number: 927-241-2 Reg.nr.: 01-2119471843-32-XXXX	hydrocarbons C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ STOT SE 3, H336; Aquatic Chronic 3, H412, EUH066	20-<25%
EC number: 926-605-8 Reg.nr.: 01-2119473851-33-XXXX	hydrocarbons C6-C7, isoalkanes, cyclenes, <5% n-hexane ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	10-<12.5%
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	<2.5%

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:**
 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. Then consult a doctor.
 · **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:

- Use fire extinguishing methods suitable to surrounding conditions.
 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

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- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.
- **Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
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.
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 section 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:**
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.
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:**
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **Storage class:** 2B
- **7.3 Specific end use(s)** See chapter 1.2.

8 Exposure controls/personal protection

· 8.1 Control parameters

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

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	

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
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 eyes and skin.
- **Respiratory protection:**
Not necessary if room is well-ventilated.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Filter A2/P3

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· Hand protection



Protective gloves

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

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

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

· Material of gloves

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

· Penetration time of glove material

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

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

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.4 mm

Value for the permeation: Level ≤ 8 h

· 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 ≤ 8 h

· Eye/face protection



Tightly sealed goggles

9 Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state

Aerosol

· Colour:

According to product specification

· Odour:

Characteristic

· Odour threshold:

Not determined.

· Melting point/freezing point:

Undetermined.

· Boiling point or initial boiling point and boiling range

Not applicable, as aerosol.

· Flammability

Not applicable.

· Lower and upper explosion limit

· Lower:

3.3 Vol % (115-10-6 dimethyl ether)

· Upper:

26.2 Vol % (115-10-6 dimethyl ether)

· Flash point:

Not applicable, as aerosol.

· Auto-ignition temperature:

240 °C

· Decomposition temperature:

Not determined.

· pH

Not determined.

· Viscosity:

· Kinematic viscosity

Not determined.

· Dynamic:

Not determined.

· Solubility

· water:

Not miscible or difficult to mix.

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

Not determined.

· Vapour pressure at 20 °C:

4,000 hPa

· Density and/or relative density

· Density at 20 °C:

0.7 g/cm³

· Relative density

Not determined.

· Vapour density

Not determined.

· 9.2 Other information

· Appearance:

· Form:

Aerosol

· Important information on protection of health and environment, and on safety.

· Ignition temperature:

Product is not selfigniting.

· Explosive properties:

Not determined.

· Solvent content:

· VOC (EC)

95.90 %

· Change in condition

· Evaporation rate

Not applicable.

· Information with regard to physical hazard classes

· Explosives

Void

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· Flammable gases	Void
· Aerosols	Extremely flammable aerosol. Pressurised container: May burst if heated.
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

10 Stability and reactivity

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

11 Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

115-10-6 dimethyl ether

Inhalative	LC50/4h	308 mg/m ³ (rat)
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hydrocarbons C7-C9, n-alkanes, isoalkanes, cyclenes

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

hydrocarbons C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics

Oral	LD50	>15,000 mg/kg (rat)
Dermal	LD50	>3,160 mg/kg (rabbit)
Inhalative	LC50/4h	>6,100 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)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· Endocrine disrupting properties

None of the ingredients is listed.

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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 C7-C9, n-alkanes, isoalkanes, cyclenes

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

71-36-3 butan-1-ol

LC50/96h	1,376 mg/l (fish)
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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

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

14 Transport information

· 14.1 UN number or ID number

· **ADR, IMDG, IATA** UN1950

· 14.2 UN proper shipping name

· **ADR** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
 · **IMDG** AEROSOLS (hydrocarbons C7-C9, n-alkanes, isoalkanes, cyclenes, CYCLOHEXANE), MARINE POLLUTANT
 · **IATA** AEROSOLS, flammable

· 14.3 Transport hazard class(es)

· ADR



· **Class** 2 5F Gases.
 · **Label** 2.1

· IMDG



· **Class** 2.1 Gases.

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· **Label** 2.1· **IATA**

· **Class** 2.1 Gases.
 · **Label** 2.1

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

· **14.5 Environmental hazards:** Product contains environmentally hazardous substances: hydrocarbons C6-C7, isoalkanes, cyclenes, <5% n-hexane
 · **Marine pollutant:** Symbol (fish and tree)
 · **Special marking (ADR):** Symbol (fish and tree)

· **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.
 · **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 Maritime transport in bulk according to IMO instruments** 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, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
P3a FLAMMABLE AEROSOLS
E2 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

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

· **Relevant phrases**

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.

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H318 Causes serious eye damage.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.
 EUH066 Repeated exposure may cause skin dryness or cracking.

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

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

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): 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

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

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

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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

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