

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.07.2023

Version number 1.4 (replaces version 1.3)

Revision: 26.07.2023

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

- 1.1 Product identifier
- · Trade name: KREUL Fixative 150 ml, 400 ml
- · Article number: 800150, 800400
- 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



Aerosol 1

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



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



· Signal word Danger

- · Hazard-determining components of labelling:
- n-butyl acetate acetone
- · Hazard statements
- H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
- H336 May cause drowsiness or dizziness.
- 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.

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P501	Dispose of contents/container in accordance with regional regulations.	
· Additio	onal information:	
EUH066	6 Repeated exposure may cause skin dryness or cracking.	
Product	t contains: Reportable explosives precursors. Making available, introduction, possession and use acco	ording to
Regulat	tion (EU) 2019/1148, Article 9.	0
Buildup	o of explosive mixtures possible without sufficient ventilation.	
2.3 Oth	per hazards	

2.3 Other hazards

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· Results of PBT and vPvB assessment

· PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

· 3.2 Mixtures

 \cdot **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	25-<50%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 Reg.nr.: 01-2119485493-29-XXXX	n-butyl acetate Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	25-<50%
CAS: 67-64-1 EINECS: 200-662-2 Index number: 606-001-00-8 Reg.nr.: 01-2119471330-49-XXXX	acetone Flam. Liq. 2, H225;	2.5-<5%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43-XXXX	ethanol	<2.5%
CAS: 1330-20-7 EC number: 905-588-0 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32-XXXX	xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	<2.5%
CAS: 9004-70-0	nitrocellulose solutions, with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose Flam. Sol. 1, H228	<2.5%

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: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:
- Wash with water and acidic soap.
- If skin irritation continues, consult a doctor.
- After eye contact:
- Remove contact lenses.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

- Seek immediate medical advice.
- 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, powder or water spray. Fight larger fire with alcohol resistant foam.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture
- Under certain fire conditions, traces of other toxic gases cannot be excluded.
- 5.3 Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

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· Additional information Cool endangered receptacles with water spray.

6 Accidental release measures

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- · 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.
- Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up: Send for recovery or disposal in suitable receptacles.

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 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.
- · 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 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.
- Storage class: 2B
- · 7.3 Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· 8.1 Control parameters

	ts with limit values that require mor	nitoring at the workplace.
	limethyl ether	
WEL Sho	rt-term value: 958 mg/m³, 500 ppm g-term value: 766 mg/m³, 400 ppm	
123-86-4 r	i-butyl acetate	
	rt-term value: 966 mg/m³, 200 ppm g-term value: 724 mg/m³, 150 ppm	
67-64-1 ac	etone	
WEL Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm		
64-17-5 et	hanol	
WEL Long	g-term value: 1920 mg/m³, 1000 ppm	
1330-20-7	xylene	
Long	rt-term value: 441 mg/m³, 100 ppm g-term value: 220 mg/m³, 50 ppm BMGV	
DNELs		
64-17-5 et	hanol	
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/m ³ (worker)
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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)		
freshwater sediment	3.6 mg/kg	
soil	0.63 mg/kg	
Ingredients with biological li		
1330-20-7 xylene BMGV 650 mmol/mol creatini	20	
Medium: urine	le	
Sampling time: post sh	lift	
Parameter: methyl hip		
1330-20-7 xylene		
BMGV 650 mmol/mol creatini	าย	
Medium: urine		
Sampling time: post sh		
Parameter: methyl hip		
Additional information: The I	sts valid during the making	j were used as basis.
8.2 Exposure controls		
Appropriate engineering con		
Individual protection measured		tective equipment
General protective and hygie		
Keep away from foodstuffs, be Immediately remove all soiled		
Wash hands before breaks and		
Avoid contact with the eyes an		
Do not inhale gases / fumes / a		
Respiratory protection:		
Use suitable respiratory protect	tive device in case of insuff	ficient ventilation.
Filter A2/P3		
Hand protection		a the much set the exchange of the much such as
		o the product/ the substance/ the preparation. naterial can be given for the product/ the preparation/ the chemi
mixture.	interidation to the glove in	
	on consideration of the per	netration times, rates of diffusion and the degradation
Material of gloves	·	, 3
	loves does not only deper	nd on the material, but also on further marks of quality and var
		a preparation of several substances, the resistance of the glo
		ore to be checked prior to the application.
Penetration time of glove ma		
		manufacturer of the protective gloves and has to be observed.
For the permanent contact g PVC or PE gloves	loves made of the following	ng materials are suitable:
Value for the permeation: Leve	l < 8 h	
Recommended thickness of th		
As protection from splashes		wing materials are suitable:
Butyl rubber, BR	5	5
Recommended thickness of th		
Value for the permeation: Leve	l ≤ 1-2 h	
Eye/face protection		
Tightly sealed gog	gies	
_		
Physical and chemical	nroportios	
i fiysical and chemical	properties	
9.1 Information on basic phy	sical and chemical prope	rties
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	J point and boiling range	
Flammability		Not applicable.
Lower and upper explosion	imit	

1.2 Vol %

- Boiling point or initial boiling point
 Flammability
 Lower and upper explosion limit
 Lower:

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· Upper:	26 Vol %
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/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
9.2 Other information	
· Appearance:	
Form:	Aerosol
Important information on protection of health a	ind
environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
Explosive properties:	Not determined.
· Solvent content:	
· Organic solvents:	94.6 %
· VOC (EC)	94.60 %
· Solids content:	4.9 %
Change in condition	
· Evaporation rate	Not applicable.
· Information with regard to physical hazard classes	
· Explosives	Void
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 gas	
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

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: No further relevant information available.

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 hazard classes as defined in Regulation (EC) No 1272/2008

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

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		evant for classification:	
115-10-6 c			
		308 mg/m³ (rat)	
123-86-4 r			
-	LD50	10,800 mg/kg (rat)	
	LD50	>17,600 mg/kg (rabbit)	
		>21 mg/m³ (rat)	
67-64-1 ac			
-	LD50	5,800 mg/kg (rat)	
	LD50	>15,800 mg/kg (rabbit)	
		76 mg/m³ (rat)	
64-17-5 et	hanol		
Oral	LD50	10,470 mg/kg (rat) (OECD 403)	
Dermal	LD50	>2,000 mg/kg (rat)	
		12,800 mg/kg (rabbit)	
Inhalative	LC50/4h	124.7 mg/m³ (rat) (OECD 403)	
1330-20-7	xylene		
Oral	LD50	3,523 mg/kg (rat)	
Dermal	LD50	2,000 mg/kg (rabbit)	
Inhalative	LC50/4h	21.7 mg/m³ (rat)	
Serious e Respirato Germ cell Carcinoge Reproduc STOT-sing May cause STOT-rep Aspiration 11.2 Inform	ye damag ry or skin mutagen enicity Ba tive toxic gle expos e drowsine eated exp n hazard I mation or	tation Based on available data, the classification criteria are not met. ge/irritation Based on available data, the classification criteria are not met. a sensitisation Based on available data, the classification criteria are not met. hicity Based on available data, the classification criteria are not met. Hised on available data, the classification criteria are not met. Hised on available data, the classification criteria are not met. Hised on available data, the classification criteria are not met. Hised on available data, the classification criteria are not met. Hised on available data, the classification criteria are not met. Hised on available data, the classification criteria are not met. Hised on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Hised on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Hised Data available data, the classification criteria are not met. Hised Data available data, the classification criteria are not met. Hised Data available data, the classification criteria are not met. Hised Data available data, the classification criteria are not met. Hised Data available data, the classification criteria are not met. Hised Data available data, the classification criteria are not met. Hised Data available data, the classification criteria are not met. Hised Data available data, the classification criteria are not met. Hised Data available data availabl	
	-	ents is listed.	
	s ingrouid		

12 Ecological information

Aquatic to	xicity:	
115-10-6 d	limethyl ether	
LC50/96h	>4,000 mg/l (fish)	
LC50/48h	>4,000 mg/l (daphnia magna)	
EC50/96h	155 mg/l (algae)	
	-butyl acetate	
LC50/96h	81 mg/l (fish)	
67-64-1 ac	etone	
	8,300 mg/l (fish)	
	8,450 mg/l (crustaceans)	
EC50/96h	7,200 mg/l (algae)	
64-17-5 et		
LC50/96h	14,200 mg/l (pimephales promelas) (US EPA method E03-0)	
	13,000 mg/l (oncorhynchus mykiss)	
LC50/48h	5,012 mg/l (ceriodaphnia dubia) (ASTM E729-80)	
	12,340 mg/l (daphnia magna)	
EC50/48h	12,900 mg/l (algae)	
	>10,000 mg/l (ceriodaphnia dubia) (DIN 38412 Teil 11)	
	9,950 mg/l (crustaceans)	
EC50/96h	12,900 mg/l (pimephales promelas) (US EPA method E03-0)	
NOEC	2 mg/l /10d (ceriodaphnia dubia) (ECHA)	
	250 mg/l /120h (danio rerio) (OECD 212)	
ErC50	275 mg/l /72h (algae) (OECD 201)	
ErCx 10%	11.5 mg/l /3d (algae) (OECD 201)	
LC50	1,806 mg/l /10d (ceriodaphnia dubia) (ECHA)	
	454 mg/l /9d (daphnia magna) (ECHA)	
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1330-20-7	xylene
LC50/96h	15.7 mg/l (fish)
LC50/48h	8.5 mg/l (crustaceans)

- · 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.

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- · vPvB: Not applicable.
- 12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.
- · 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

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

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

13 Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Must be specially treated adhering to official regulations.

· Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

14.1 UN number or ID number ADR, IMDG, IATA	UN1950
14.2 UN proper shipping name ADR IMDG IATA	1950 AEROSOLS AEROSOLS AEROSOLS, flammable
14.3 Transport hazard class(es)	
ADR	
Class Label	2 5F Gases. 2.1
Class	2.1 Gases.
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 / For AEROSOLS with a capacity above 1 litre: Category B. For WAST AEROSOLS: Category C, Clear of living quarters.

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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	
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

15 Regulatory information

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

Directive 2012/18/EU

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- Named dangerous substances ANNEX I None of the ingredients is listed.
- Seveso category 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
- · 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.
- Highly flammable liquid and vapour. H225
- H226 Flammable liquid and vapour.
- H228 Flammable solid
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

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
- GHS: Globally Harmonised System of Classification and Labelling of Chemical EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) DNEL: Derived No-Effect Level (UK REACH) PNEC: Predicted No-Effect Concentration (UK REACH) LC50: Lethal donce f0 pagraet

- LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative Flam. Gas 1A: Flammable gases Category 1A
- Flattili Gas FA, Flattiliado gases Category TA Aerosol 1: Aerosols Category 1 Press. Gas (Comp.): Gases under pressure Compressed gas Flam. Liq. 2: Flammable liquids Category 2 Flam. Sol. 1: Flammable liquids Category 3 Flam. Sol. 1: Flammable solids Category 1
- Acute Tox. 4: Acute toxicity Category 4

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Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Irrit. 2: Serious eye damage/eye irritation – 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 • * Data compared to the previous version altered.

- GB