

MATERIAL SAFETY DATA SHEET

as per 1907/2006/EC, Article 31

741602
Reviewed on: 10.05.2017
Printing date: 10.05.2017

SECTION 01: Identification of the substance/mixture and of the company undertaking

- **1.1 Product identifier**
- **Trade name:**
CLOU Shellac Coating Lacquer
- **SDB-group**
19300
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**
Wood coating
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Alfred Clouth
Lackfabrik GmbH & Co. KG
Otto-Scheugenpflug-Straße 2
63073 Offenbach/Main
Deutschland
Tel + 49 69-89 00 7-0 / Fax + 49 69-89 00 7-143
E-Mail: info@clou.de / www.clou.de
- **Further information obtainable from:**
Laboratory:
Telephone: + 49 69/89 00 7 - 0
Fax: + 49 69/89 00 7 - 143
- **1.4 Emergency telephone number:**
Giftinformationszentrum - Nord
Universitätsklinikum
Bereich Humanmedizin
Robert Koch Str.40
37075 Göttingen
Deutschland
Tel.: + 49 551 / 1 92 40

SECTION 02: Hazards identification

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



GHS02

Flam. Liq. 2 - H225 Highly flammable liquid and vapour.



GHS05

Eye Dam. 1 - H318 Causes serious eye damage.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**



GHS02



GHS05

- **Signal word**
Danger

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- **Hazard-determining components of labelling:**
butanol / butan-1-ol
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H318 Causes serious eye damage.
- **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.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves / eye 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.
P370+P378 In case of fire: Use for extinction: CO2, sand, extinguishing powder.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:**
Not applicable.
- **vPvB:**
Not applicable.

SECTION 03: Composition/information on ingredients

- **3.2 Mixtures**
 - **Description:**
Mixture of the substances listed below with nonhazardous additions.
 - **Dangerous components:**
- | CAS Number | | % |
|------------|--|-----------------|
| 64-17-5 | ethanol
EC number: 200-578-6
Record number 01-2119457610-43
Flam. Liq. 2 - H225; Eye Irrit. 2 - H319 | 50-100 |
| 78-83-1 | butanol
EC number: 201-148-0
Record number 01-2119484609-23
Eye Dam. 1 - H318; Flam. Liq. 3 - H226; Skin Irrit. 2 - H315, STOT SE 3 - H335-H336 | 2,5-10 |
| 71-36-3 | butan-1-ol
EC number: 200-751-6
Record number 01-2119484630-38
Eye Dam. 1 - H318; Flam. Liq. 3 - H226; Acute Tox. 4 - H302, Skin Irrit. 2 - H315, STOT SE 3 - H335-H336 | < 2,5 |
- **Additional information:**
For the wording of the listed risk phrases refer to section 16.

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SECTION 04: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Take off or remove contaminated clothing immediately.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Seek medical treatment in case of complaints.
- **After skin contact:**
Wash thoroughly with soap and water immediately and rinse well.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Drink copious amounts of water and provide fresh air. Call for a doctor immediately.
- **Information for doctor:**
Treat symptomatically.
- **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.

SECTION 05: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Foam
Fire-extinguishing powder
Carbon dioxide
- **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**
Cool endangered receptacles with water spray.
Bring if possible, containers from the danger zone. With heating up, printing increase, Berst and danger of explosion.

SECTION 06: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Protection regulations (see point 7 and 8) to consider.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
Possible warning the neighbourhood.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
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.

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SECTION 07: Handling and storage

- **Handling:**
- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Use only in well ventilated areas.
Smoking, drinking and eating are not permitted at the working place!
Keep out of the reach of children.
Do not breathe in fumes.
Do not empty into drains.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.
Vapours are heavier than air.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
The official regulations for the storage of paints and varnishes and Chemicals must be observed.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:**
3
- **7.3 Specific end use(s)**
For more information, please refer to the technical data sheet.

SECTION 08: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**

64-17-5		<i>ethanol</i>		
WEL				
	<i>Long-term value</i>	1920		<i>mg/m3</i>
		1000		<i>ppm</i>
78-83-1		<i>butanol</i>		
WEL				
	<i>Short-term value</i>	231		<i>mg/m3</i>
		75		<i>ppm</i>
	<i>Long-term value</i>	154		<i>mg/m3</i>
		50		<i>ppm</i>
71-36-3		<i>butan-1-ol</i>		
WEL				
	<i>Short-term value</i>	154		<i>mg/m3</i>
		50		<i>ppm</i>
		<i>Sk</i>		

- **DNELs**

64-17-5 *ethanol*
A, DNEL/DMEL: 114 mg/m3 (Consumer, Long Term Exposure)
A, DNEL/DMEL: 950 mg/m3 (Worker, Long Term Exposure)
A, DNEL/DMEL: 950 mg/m3 (Consumer, Short Term Exposure)
A, DNEL/DMEL: 1900 mg/m3 (Worker, Short Term Exposure)
H, DNEL/DMEL: 206 mg/kg (Consumer, Long Term Exposure)
H, DNEL/DMEL: 343 mg/kg (Worker, Long Term Exposure)

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Oral, DNEL/DMEL: 87 mg/kg (Consumer, Long Term Exposure)

78-83-1 butanol

A, DNEL/DMEL: 55 mg/m³ (Consumer, Long Term Exposure)

A, DNEL/DMEL: 310 mg/m³ (Worker, Long Term Exposure)

Oral, DNEL/DMEL: 25 mg/kg (Consumer, Long Term Exposure)

71-36-3 butan-1-ol

A, DNEL/DMEL: 55 mg/m³ (Consumer, Long Term Exposure)

A, DNEL/DMEL: 310 mg/m³ (Worker, Long Term Exposure)

Oral, DNEL/DMEL: 3125 mg/kg (Worker, Long Term Exposure)

• **PNECs**

64-17-5 ethanol

PNEC: 0,96 mg/l (Fresh water)

PNEC: 0,79 mg/l (Seawater)

PNEC: 2,75 mg/l (Liberation - sporadic -)

PNEC: 580 mg/l (Defecator)

PNEC: 3,6 mg/kg (sediment (Fresh water)

PNEC: 2,9 mg/kg (sediment (seawater)

PNEC: 0,63 mg/kg (Bottom)

78-83-1 butanol

PNEC: 0,4 mg/l (Fresh water)

PNEC: 0,04 mg/l (Seawater)

PNEC: 1,52 mg/kg (sediment (Fresh water)

PNEC: 0,152 mg/kg (sediment (seawater)

71-36-3 butan-1-ol

PNEC: 0,082 mg/l (Fresh water)

PNEC: 0,0082 mg/l (Seawater)

PNEC: 2476 mg/l (Defecator)

PNEC: 0,178 mg/kg (sediment (Fresh water)

PNEC: 0,0178 mg/kg (sediment (seawater)

• **Personal protective equipment:**

• **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

• **Respiratory protection: If the solvent concentration is above WEL limits, a breathing mask approved for this purpose must be worn. Filter A2/P2.**

• **Protection of hands: The glove material has to be impermeable and resistant to the product the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. Protective gloves made of latex / neoprene. Degradation effect G to E Instalment of permeation E to ND (< 0.9 µg / cm² / min). Protective factor index: special subject class 6 Preventive skin protection by use of skin-protecting agents is recommended. After use of gloves apply skin-cleaning agents and skin cosmetics.**

• **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.

• **Eye protection: Safety glasses**

• **Body protection: Protective work clothing**

SECTION 09: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid

Colour: According to product specification

Odour: Characteristic

Odour threshold: Not determined.

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pH-value:	Not usable on solvent preparations.
Change in condition Phase transfer: fluid - solid	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range (approximately):	78,0 °C
Flash point (approximately):	12,0 °C DIN 51 755
Flammability (solid, gaseous):	Not applicable.
Ignition temperature (approximately):	301,00 °C (lowest value of the single components)
Decomposition temperature:	Not determined.
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limits:	
Lower:	3,30 Vol %
Upper:	19,00 Vol %
Oxidizing properties	Not determined
Vapour pressure:	50°C < 1.100 hPa
Density:	0,8910 g/cm3
Vapour density	Not determined.
Evaporation rate	Not applicable.
Solubility in / Miscibility with water:	Organic solvents Partly miscible.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity (according to DIN 53211)	
Dynamic:	Not determined.
Kinematic:	at 20,00 °C 31,00 s ISO 3 mm
Solvent separation test:	< 3 %
Organic solvents (approximately):	79,00 %
VOC (EC)	704,00 g/l
Solids content (approximately):	21,00 %
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
On storage in containers no traffic laws intolerances are to be expected with the tank shell.
- **10.2 Chemical stability**
Stable at room temperature
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Forms explosive gases/fumes.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.
- **10.4 Conditions to avoid**
No further relevant information available.
- **10.5 Incompatible materials:**
No further relevant information available.
- **10.6 Hazardous decomposition products:**
Flammable gases/vapours

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SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**
 - 64-17-5 ethanol**
Oral, LD50: > 2000 mg/kg (rat)
Dermal, LD50: > 2000 mg/kg (Rabbit)
Inhalative, LC50/4h: > 20 mg/l (rat)
 - 78-83-1 butanol**
Oral, LD50: 2830 mg/kg (rat)
Dermal, LD50: > 2000 mg/kg (Rabbit)
Inhalative, LC50/4h: > 18,18 mg/l (rat)
 - 71-36-3 butan-1-ol**
Oral, LD50: 2292 mg/kg (rat)
Dermal, LD50: 3430 mg/kg (Rabbit)
Inhalative, LC50/4h: 8000 mg/l (rat)
- **Primary irritant effect:**
- **on the skin:**
Frequent and prolonged skin contact can cause irritation and inflammation of the skin.
Repeated exposure may cause skin dryness or cracking.
- **on the eye:**
Irritating effect.
- **Sensitization:**
No sensitising effects known.
- **Additional toxicological information:**
The breathing in of solvent proportions above the value of M. W. C.-value can lead to health damages, such as irritating mucous membranes and respiratory organs, kidney and liver damages as well as to the impairment of the central nervous system. Signs and symptoms: Headache, dizziness and tiredness, myasthenia, numbing effect and also unconsciousness in exceptional cases. Longer and repeated skin contact can lead to drying out the skin or to skin irritations, respectively. Solvent splashes can lead to eye irritations and reversible damages. In such cases a physician should be consulted at once.
The product shows the following dangers based on the calculation method of the General EU Classification Guidelines for Substances and Mixtures according to the CLP Regulation in the latest version:
Eye Dam. 1 - H318 Causes serious eye damage.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**
 - 64-17-5 ethanol**
fish, L(E)C50: 15300 mg/l
daphnie, L(E)C50: > 10000 mg/l
 - 78-83-1 butanol**
fish, L(E)C50: 1430 mg/l
alga, L(E)C50: 1250 mg/l
daphnie, L(E)C50: 1100 mg/l
alga, NOEC: 53 mg/l
daphnie, NOEC: 20 mg/l
 - 71-36-3 butan-1-ol**
fish, L(E)C50: 1730-1910 mg/l
alga, L(E)C50: > 500 mg/l
daphnie, L(E)C50: 1983 mg/l
- **12.2 Persistence and degradability**
No further relevant information available.
- **12.3 Bioaccumulative potential**
No further relevant information available.
- **12.4 Mobility in soil**

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- No further relevant information available.
- **Additional ecological information:**
 - **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 1 : slightly hazardous for water
 - **12.5 Results of PBT and vPvB assessment**
 - **PBT:**
Not applicable.
 - **vPvB:**
Not applicable.
 - **12.6 Other adverse effects**
No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
The mentioned waste code number according to the European waste code catalogue are regarded as a recommendation. A final determining has to be effected in agreement with the regional place of waste disposal as well as the competent authorities.
- **Waste disposal key:**
08 01 11 waste paint and varnish containing organic solvents or other hazardous substances
- **European waste catalogue**
08
WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01
wastes from MFSU and removal of paint and varnish
08 01 11
waste paint and varnish containing organic solvents or other hazardous substances
- **Uncleaned packaging:**
Disposal of uncleaned packagings according to European waste code number 15 01 10.
- **Recommendation:**
Disposal according to 15 01 04 (metal).
EAK-Nummer 15 01 02 / plastic
Packaging can be reused or recycled after cleaning.
- **Recommended cleansing agents:**
Water, if necessary with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**

ADR	UN1263
IMDG	UN1263
IATA	UN1263
- **14.2 UN proper shipping name**

ADR	1263 PAINT (ETHANOL (ETHYL ALCOHOL))
IMDG	PAINT
IATA	PAINT
- **14.3 Transport hazard class(es)**

ADR	
Class	3 Flammable liquids.

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Label



IMDG

Class

3 Flammable liquids.

Label



IATA

Class

3 Flammable liquids.

Label



• **14.4 Packing group**

ADR

II

IMDG

II

IATA

II

• **14.5 Environmental hazards:**

Not applicable.

• **14.6 Special precautions for user**

Warning: Flammable liquids.

Danger code (Kemler):

33

EMS Number:

F-E,S-E

• **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

• **Transport/Additional information:**

Not applicable.

Excepted quantities (EQ):

E2

Limited quantities (LQ)

5L

Transport category

2

Tunnel restriction code

D/E

IMDG

Limited quantities (LQ)

5L

Excepted quantities (EQ)

E2

• **UN "Model Regulation":**

UN 1263 PAINT (ETHANOL (ETHYL ALCOHOL)), 3, II

SECTION 15: Regulatory information

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

• **REGULATION (EC) No 1907/2006 ANNEX XVII**

Conditions of restriction: 3

• **National regulations:**

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- **Information about limitation of use:**

Pregnant and breastfeeding women and young persons.

- **Waterhazard class:**

Water hazard class 1 : slightly hazardous for water.

- **15.2 Chemical safety assessment:**

For this product no appraisal of substance safety was carried out. Information from exposure scenarios of the following substances were integrated into section 1-16:

butanol

butan-1-ol

ethanol

The compliance with the application conditions and measures for risk minimisation contained in this material safety data sheet ensures the conformity with the existing exposure scenarios.

- **Storage class:**

3

SECTION 16: Other information

- **Other information:**

- **Reasons for changes**

P-statements were adjusted according to the classification.

- **Relevant phrases**

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

- **Department issuing MSDS:**

Laboratory / Department of Material Safety Data Sheets: Phone: +49 69 89 00 7 - 104 / Fax: +49 69 89 00 7 - 452 / E-Mail: cosima.sattler@clou.de

- **Information:**

The information given in this safety data sheet is based on the present level of knowledge, but does not represent an assurance of product characteristics.

The user is responsible for observing all necessary legal regulations.

For further information on the handling and application of the product(s), please refer to our label and the technical instructions leaflet or contact our Customer Service Department on Tel.: 49 69 / 89 00 7 -124, -107 or -227.

According to § 14 GefStoffV the employer must provide instruction to the employees affected on the basis of the operating instructions every year. The content and time of the instruction is to be recorded in writing and confirmed by signatures from those receiving instruction.

Please observe work safety measures in items 8 and 15.

Use only for intended purposes. Keep out of the reach of children.

- **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)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

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)

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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
vPvB: very Persistent and very Bioaccumulative

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