

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

- **1.1 Product identifier**
- **Trade name: Relo 1K-Klarlack**
- **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
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
RELO
Postfach 1132
D-84049 Essenbach
Tel.: +49 (0)8703/922 -0
Fax: +49 (0)8703/922 -100
Email: relo@b2bmail.eu
- **1.4 Emergency telephone number:** +49(0)700 24112112 (MIP)

2 Hazards identification

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



GHS02 flame

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



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

R20/21-48/20: Harmful by inhalation and in contact with skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation.



Xi; Irritant

R36: Irritating to eyes.



F; Highly flammable

R11: Highly flammable.

R52/53-66: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Repeated exposure may cause skin dryness or cracking.

(Contd. on page 2)

Trade name: Relo 1K-Klarlack

(Contd. of page 1)

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **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 GHS07 GHS08

· **Signal word Danger**

· **Hazard-determining components of labelling:**

xylene

n-butyl acetate

acetone

Ethylbenzene

· **Hazard statements**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

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

H304 May be fatal if swallowed and enters airways.

H412 Harmful 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.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH208 Contains Bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate. May produce an allergic reaction.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.08.2015

Version number 36

Revision: 23.04.2015

Trade name: Relo 1K-Klarlack

(Contd. of page 2)

3 Composition/information on ingredients· **3.2 Chemical characterisation: Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

| | | |
|---|---|------------|
| CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29 | n-butyl acetate R10-66-67 Flam. Liq. 3, H226; STOT SE 3, H336 | 25-50% |
| CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49 | acetone Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 | 20-<25% |
| CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32 | xylene Xn R20/21-48/20-65; Xi R36/37/38 R10 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 | 12.5-<20% |
| CAS: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35 | Ethylbenzene Xn R20-48/20-65; F R11 Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412 | 3-<10% |
| CAS: 64742-95-6 EINECS: 265-199-0 | Solvent naphtha (petroleum), light arom. Xn R65; Xi R37; N R51/53 R10-66-67 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335-H336 | 1-<2.5% |
| CAS: 78-93-3 EINECS: 201-159-0 Reg.nr.: 01-2119457290-43 | butanone Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 | 1-<2.5% |
| CAS: 131-11-3 EINECS: 205-011-6 | dimethyl phthalate substance with a Community workplace exposure limit | 1-<2.5% |
| CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29 | 2-methoxy-1-methylethyl acetate R10 Flam. Liq. 3, H226 | 1-<2.5% |
| CAS: 41556-26-7 EINECS: 255-437-1 Reg.nr.: 01-2119491304-40 | Bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate Xi R43; N R50/53 Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317 | 0.25-<0.3% |
| CAS: 127519-17-9 ELINCS: 407-000-3 | A mixture of branched and linear C7-C9 alkyl 3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethyl-ethyl)-4-hydroxyphenyl] propionates N R51/53 Aquatic Chronic 2, H411 | 0.1-<0.3% |

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

GB

(Contd. on page 4)

Trade name: Relo 1K-Klarlack

(Contd. of page 3)

4 First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **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.

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

· **After eye contact:**

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

· **After swallowing:** *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, 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** *No further relevant information available.*

· **5.3 Advice for firefighters**

· **Protective equipment:** *Mouth respiratory protective device.*

6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

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

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).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· **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**

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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

Keep ignition sources away - Do not smoke.

(Contd. on page 5)

Trade name: Relo 1K-Klarlack

(Contd. of page 4)

Protect against electrostatic charges.

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· **Storage class:** 3

· **7.3 Specific end use(s)** No further relevant information available.

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:**

123-86-4 n-butyl acetate

| | |
|-----|---|
| WEL | Short-term value: 966 mg/m ³ , 200 ppm |
| | Long-term value: 724 mg/m ³ , 150 ppm |

67-64-1 acetone

| | |
|-----|---|
| WEL | Short-term value: 3620 mg/m ³ , 1500 ppm |
| | Long-term value: 1210 mg/m ³ , 500 ppm |

1330-20-7 xylene

| | |
|-----|---|
| WEL | Short-term value: 441 mg/m ³ , 100 ppm |
| | Long-term value: 220 mg/m ³ , 50 ppm |
| | Sk; BMGV |

100-41-4 Ethylbenzene

| | |
|-----|---|
| WEL | Short-term value: 552 mg/m ³ , 125 ppm |
| | Long-term value: 441 mg/m ³ , 100 ppm |
| | Sk |

78-93-3 butanone

| | |
|-----|---|
| WEL | Short-term value: 899 mg/m ³ , 300 ppm |
| | Long-term value: 600 mg/m ³ , 200 ppm |
| | Sk, BMGV |

131-11-3 dimethyl phthalate

| | |
|-----|--|
| WEL | Short-term value: 10 mg/m ³ |
| | Long-term value: 5 mg/m ³ |

108-65-6 2-methoxy-1-methylethyl acetate

| | |
|-----|---|
| WEL | Short-term value: 548 mg/m ³ , 100 ppm |
| | Long-term value: 274 mg/m ³ , 50 ppm |
| | Sk |

· **Ingredients with biological limit values:**

1330-20-7 xylene

| | |
|------|---------------------------------|
| BMGV | 650 mmol/mol creatinine |
| | Medium: urine |
| | Sampling time: post shift |
| | Parameter: methyl hippuric acid |

(Contd. on page 6)

Trade name: Relo 1K-Klarlack

(Contd. of page 5)

78-93-3 butanone

| | |
|-------------|---|
| BMGV | 70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one |
|-------------|---|

· **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 eyes and skin.

· **Respiratory protection:**

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:**

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



Protective gloves (EN 374)

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

· **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.

· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

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

| | |
|----------------|------------------------------------|
| Form: | Fluid |
| Colour: | According to product specification |
| Odour: | Characteristic |

(Contd. on page 7)

Trade name: Relo 1K-Klarlack

(Contd. of page 6)

| | |
|---|---|
| · Odour threshold: | Not determined. |
| · pH-value: | Not determined. |
| · Change in condition Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 55 °C |
| · Flash point: | < 0 °C (DIN 53213) |
| · Flammability (solid, gaseous): | Not applicable. |
| · Ignition temperature: | 370 °C (DIN 51794) |
| · 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: | 1.1 Vol % |
| Upper: | 13.0 Vol % |
| · Vapour pressure at 20 °C: | 233 hPa |
| · Density at 20 °C: | 0.888 g/cm ³ (DIN 53217) |
| · Relative density | Not determined. |
| · Vapour density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: Dynamic: | Not determined. |
| Kinematic at 20 °C: | 13 s (DIN 53211/4) |
| · Solvent content: VOC (EC) | 81.34 % |
| Solids content (weight-%): | 18.7 % |
| · 9.2 Other information | No further relevant information available. |

10 Stability and reactivity

- **10.1 Reactivity**
- **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:** Carbon monoxide

(Contd. on page 8)

Trade name: Relo 1K-Klarlack

(Contd. of page 7)

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

1330-20-7 xylene

| | | |
|------|------|------------------|
| Oral | LD50 | 8700 mg/kg (rat) |
|------|------|------------------|

64742-95-6 Solvent naphtha (petroleum), light arom.

| | | |
|------|------|-------------------|
| Oral | LD50 | >2000 mg/kg (rat) |
|------|------|-------------------|

| | | |
|--------|------|-------------------|
| Dermal | LD50 | >2000 mg/kg (rab) |
|--------|------|-------------------|

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitisation:** No sensitising effects known.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful
Irritant

12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) : hazardous for water
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.
Harmful to 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.

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 dangerous substances |
|-----------|---|

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.08.2015

Version number 36



Revision: 23.04.2015

Trade name: **Relo 1K-Klarlack**

(Contd. of page 8)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

| | |
|--|--|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | <p style="text-align: right;">UN1263</p> |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG, IATA | <p style="text-align: right;">1263 PAINT, special provision 640D PAINT</p> |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR | <div style="text-align: center;">  </div> <p style="text-align: right;">3 (F1) Flammable liquids.</p> |
| <ul style="list-style-type: none"> · Class · Label | <p style="text-align: right;">3 3</p> |
| <ul style="list-style-type: none"> · IMDG, IATA | <div style="text-align: center;">  </div> <p style="text-align: right;">3 Flammable liquids.</p> |
| <ul style="list-style-type: none"> · Class · Label | <p style="text-align: right;">3 3</p> |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | <p style="text-align: right;">II</p> |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: | <p style="text-align: right;">No</p> |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: | <p style="text-align: right;">Warning: Flammable liquids. 33 F-E, S-E</p> |
| <ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | <p style="text-align: right;">Not applicable.</p> |
| <ul style="list-style-type: none"> · Transport/Additional information: | |
| <ul style="list-style-type: none"> · ADR · Transport category · Tunnel restriction code | <p style="text-align: right;">2 D/E</p> |
| <ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) | <p style="text-align: right;">5L</p> |
| <ul style="list-style-type: none"> · UN "Model Regulation": | <p style="text-align: right;">UN1263, PAINT, special provision 640D, 3, II</p> |

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(Contd. on page 10)

Trade name: Relo 1K-Klarlack

(Contd. of page 9)

15 Regulatory information

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

· **National regulations:**

| Class | Share in % |
|-------|------------|
| NK | 50-100 |

· **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**

- H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H312 Harmful in contact with skin.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 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.
 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.
 H412 Harmful to aquatic life with long lasting effects.
-
- R10 Flammable.
 R11 Highly flammable.
 R20 Harmful by inhalation.
 R20/21 Harmful by inhalation and in contact with skin.
 R36 Irritating to eyes.
 R36/37/38 Irritating to eyes, respiratory system and skin.
 R37 Irritating to respiratory system.
 R43 May cause sensitisation by skin contact.
 R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R65 Harmful: may cause lung damage if swallowed.
 R66 Repeated exposure may cause skin dryness or cracking.
 R67 Vapours may cause drowsiness and dizziness.

· **Abbreviations and acronyms:**

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

(Contd. on page 11)

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

Printing date 10.08.2015

Version number 36

Revision: 23.04.2015

Trade name: Relo 1K-Klarlack

(Contd. of page 10)

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

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

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