Safety Data Sheet dated 26/7/2013, version 1

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

1.1. Product identifier
   Trade name: “materia poxy” comp. A

1.2. Relevant identified uses of the substance or mixture.
   Acid-resistant epoxy grout and adhesive for ceramic tiles.
   Uses advised against: ==

1.3. Details of the supplier of the safety data sheet
   Supplier:
   FLORIM Ceramiche S.p.A. – Via Canaletto 24, 41042 Fiorano Modenese (MO) - Italia
   Competent person responsible for the safety data sheet:
   info@florim.it; martignanim@florim.it

1.4. Emergency telephone number
   FLORIM Ceramiche S.p.A.: Tel. +(39) 0536 840111 /+(39) 0542 57323 hours 8:30-17:30 CET

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
   Directive criteria, 67/548/CE, 1999/45/EC and following amendments thereof:
   Properties / Symbols:
   Xi Irritant
   R Phrases:
   R36/38 Irritating to eyes and skin.
   R43 May cause sensitization by skin contact.
   R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

   EC regulation criteria 1272/2008 (CLP):

   Warning, Skin Irrit. 2, Causes skin irritation.

   Warning, Eye Irrit. 2, Causes serious eye irritation.

   Warning, Skin Sens. 1, May cause an allergic skin reaction.

   Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

   Adverse physicochemical, human health and environmental effects:
   No other hazards

2.2. Label elements
   Symbols:
Warning

Hazard Statements:
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements:
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:
EUE205 Contains epoxy constituents. May produce an allergic reaction.

Contents:
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)
bisphenol F - epoxy resin
oxirane, mono[(C12-14-alkyloxymethyl) methyl] derivs.

Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. Other hazards
vPvB Substances: None - PBT Substances: None

Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances
N.A.

3.2. Mixtures
Hazardous components within the meaning of EEC directive 67/548 and CLP regulation and corresponding classification:
10% - 20% reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)
REACH No.: 01-2119456619-26-xxxx, Index number: 603-074-00-8, CAS: 25068-38-6, EC: 500-033-5
Xi,N; R36/38-43-51/53

3.3/2 Eye Irrit. 2 H319

3.2/2 Skin Irrit. 2 H315

3.4.2/1-1A-1B Skin Sens. 1, 1A, 1B H317

4.1/C2 Aquatic Chronic 2 H411

2.5% - 5% bisphenol F - epoxy resin
3.2/2 Skin Irrit. 2 H315

3.4.2/1-1A-1B Skin Sens. 1, 1A, 1B H317

4.1/C2 Aquatic Chronic 2 H411

2.5% - 5% oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
REACH No.: 01-21194852289-22-xxxx, Index number: 603-103-00-4, CAS: 68609-97-2, EC: 271-846-8
Xi; R38-43

3.2/2 Skin Irrit. 2 H315

3.4.2/1-1A-1B Skin Sens. 1, 1A, 1B H317

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:
Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:
Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
A suspension of activated charcoal in water, or petroleum jelly may be administered.

In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

If brought into contact with the eyes, the product causes irritation that may last for over 24 hours, and if brought into contact with the skin it causes significant inflammation with erythema, scabs, and oedema.
If brought into contact with the skin, the product may cause sensitisation of the skin.
This preparation contains low molecular weight epoxy resins. Cross sensitisation to other epoxies is possible. Avoid also exposure to spray mist and vapour.

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:
SECTION 5: Firefighting measures

5.1. Extinguishing media
   Suitable extinguishing media:
   - None in particular.
   - Water.
   Extinguishing media which must not be used for safety reasons:
   - None in particular.

5.2. Special hazards arising from the substance or mixture
   - Do not inhale explosion and combustion gases.
   - Burning produces heavy smoke.
   - The original ingredients or unidentified toxic and/or irritant compounds may be present in the combustion fumes.

5.3. Advice for firefighters
   - Use suitable breathing apparatus.
   - Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
   - Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
   - Wear personal protection equipment.
   - Remove persons to safety.
   - See protective measures under point 7 and 8.

6.2. Environmental precautions
   - Limit leakages with earth or sand.
   - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
   - Retain contaminated washing water and dispose it.
   - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
   - Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up
   - Rapidly recover the product, wearing protective clothing.
   - Suitable material for taking up: absorbing material, organic, sand
   - Wash with plenty of water.
   - Retain contaminated washing water and dispose it.

6.4. Reference to other sections
   - See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
   - Avoid contact with skin and eyes, inhalation of vapours and mists.
   - Don't use empty container before they have been cleaned.
   - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
   - Contaminated clothing should be changed before entering eating areas.
   - Do not eat or drink while working.
   - See also section 8 for recomended protective equipment.
   - Fine dust may form explosive mixture with air. Keep away from open flames, heat and sparks.
   - Do not remove shrink film in hazardous locations (because of risk of static charging/discharge)

7.2. Conditions for safe storage, including any incompatibilities
   - Always keep the containers tightly closed.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)
None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No occupational exposure limit available

DNEL Exposure Limit Values
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) - CAS: 25068-38-6
Worker Industry: 8.3 mg/kg - Exposure: Human Dermal Short Term, systemic effects
Worker Industry: 12.3 mg/m3 - Exposure: Human Inhalation Short Term, systemic effects
Worker Industry: 8.3 mg/kg - Exposure: Human Dermal Long Term, systemic effects
Worker Industry: 12.3 mg/m3 - Exposure: Human Inhalation Long Term, systemic effects
Consumer: 3.6 mg/kg - Exposure: Human Dermal Short Term, systemic effects
Consumer: 0.75 mg/m3 - Exposure: Human Inhalation Short Term, systemic effects
Consumer: 0.75 mg/kg - Exposure: Human Oral Short Term, systemic effects
Consumer: 3.6 mg/kg - Exposure: Human Dermal Long Term, systemic effects
Consumer: 0.75 mg/m3 - Exposure: Human Inhalation Long Term, systemic effects
Consumer: 0.75 mg/m3 - Exposure: Human Oral Long Term, systemic effects

PNEC Exposure Limit Values
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) - CAS: 25068-38-6
Target: Fresh Water - Value: 0.003 mg/l
Target: Marine water - Value: 0.0003 mg/l
Target: Freshwater sediments - Value: 0.5 mg/kg
Target: Marine water sediments - Value: 0.5 mg/kg

8.2. Exposure controls
Eye protection:
Use close fitting safety goggles, don't use eye lens.

Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:
Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.
The use of LLPDE (0.06 mm), nitrile (0.4) or butyl (0.5 mm) gloves is suggested. Latex gloves are not recommended.

Respiratory protection:
Not needed for normal use.
Not needed for normal use.

Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Thermal Hazards:
Environmental exposure controls:

None

Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: paste

Colour: various

Odour: typical

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: == °C

Solid/gas flammability: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Flash point: N.A.

Evaporation rate: N.A.

Vapour pressure: 0.01 kPa (23°C)

Relative density: 1.63 g/cm³ (23°C)

Vapour density (air=1): N.A.

Solubility in water: insoluble

Solubility in oil: soluble

Viscosity: 700000 mPa.s (23°C)

Auto-ignition temperature: N.A.

Explosion limits (by volume): N.A.

Decomposition temperature: N.A.

Partition coefficient (n-octanol/water): N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

9.2. Other information

Miscibility: N.A.

Fat Solubility: N.A.

Conductivity: N.A.

Substance Groups relevant properties N.A.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

It may catch fire on contact with powerful oxidising agents.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information
11.1. Information on toxicological effects

Route(s) of entry:
- Ingestion: Yes
- Inhalation: Yes
- Contact: Yes

Toxicological information related to the product:
There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

Toxicological information of the mixture:
N.A.

Toxicological information of the main substances found in the mixture:
- reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) - CAS: 25068-38-6
  - a) acute toxicity:
    - Test: LD50 - Route: Oral - Species: Rat > 15000 mg/kg
    - Test: LD50 - Route: Skin - Species: Rabbit = 23000 mg/kg
- bisphenol F - epoxy resin - CAS: 28064-14-4
  - a) acute toxicity:
    - Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg
    - Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg
  - a) acute toxicity:
    - Test: LD50 - Route: Oral - Species: Rat 19200 mg/kg
    - Test: LD50 - Route: Skin - Species: Rabbit > 4500 mg/kg

Corrosive/Irritating Properties:
- Skin:
  - The product can cause irritation by contact.
- Eye:
  - The product can cause irritation by contact

Sensitizing Properties:
- Frequent contact may cause sensitization.

Cancerogenic Effects:
- No effects are known.

Mutagenic Effects:
- No effects are known.

Teratogenic Effects:
- No effects are known.

Additional Information:
- Liquid epoxy resin contained in this material causes only minor skin irritation. However, all epoxy resins are capable of causing sensitizing of the skin.
- Susceptibility to skin irritation and sensitization varies from person to person.
- In a sensitized individual the allergic dermatitis may not appear until after several days or weeks of frequent and prolonged contact.
- Therefore, even though the skin irritation potential is slight, skin contact should be avoided. Once sensitization has occurred, exposure of the skin to very small quantities of the material may cause erythema and edema.
- For this reason, the contact with the skin should be avoided. Once sensitization has occurred, exposures to small amounts of material may cause erythema and edema locally.

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:
  - a) acute toxicity;
  - b) skin corrosion/irritation;
c) serious eye damage/irritation;
d) respiratory or skin sensitisation;
e) germ cell mutagenicity;
f) carcinogenicity;
g) reproductive toxicity;
h) STOT-single exposure;
i) STOT-repeated exposure;
j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity
Adopt good industrial practices, so that the product is not released into the environment.

Not available data on the mixture

Biodegradability: not readily biodegradable

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) - CAS: 25068-38-6

a) Aquatic acute toxicity:
   Endpoint: LC50 - Species: Fish = 2 mg/l - Duration h: 96
   Endpoint: EC50 - Species: Daphnia = 1.8 mg/l - Duration h: 48
   Endpoint: EC50 - Species: Algae = 11 mg/l - Duration h: 72

12.2. Persistence and degradability
N.A.

12.3. Bioaccumulative potential
N.A.

12.4. Mobility in soil
N.A.

12.5. Results of PBT and vPvB assessment
List of environmentally dangerous substances contained in this preparation and their classification:

10% - 20% reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)
   CAS: 25068-38-6
   R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.5% - 5% bisphenol F - epoxy resin
   CAS: 28064-14-4
   R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects
None

Not available data on the mixture

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover if possible. In so doing, comply with the local and national regulations currently in force.

Dispose of this material and its container to hazardous or special waste collection point. Avoid release to the environment. Refer to special instructions/Safety data sheets.


Disposal of hardened product (EC waste code) : 08 04 10
Disposal of not hardened product (EC waste code) : 08 04 09
The suggested European waste code is just based on the composition of the product. According to the specific process or application field a different waste code may be necessary.

SECTION 14: Transport information
14.1. UN number
Not classified as dangerous in the meaning of transport regulations.
UN Number: ==
14.2. UN proper shipping name
N.A.
14.3. Transport hazard class(es)
Rail/Road(RID/ADR): no dangerous good
ADR-Upper number: NA
Air (ICAO/IATA): no dangerous good
Sea (IMO/IMDG): no dangerous good
N.A.
14.4. Packing group
N.A.
14.5. Environmental hazards
Marine pollutant: No
N.A.
14.6. Special precautions for user
N.A.
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
N.A.
No

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances)
Dir. 99/45/EC (Classification, packaging and labelling of dangerous preparations)
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Dir. 2006/8/EC
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP)
Regulation (EU) n. 453/2010 (Annex I)
Regulation (EU) n. 286/2011 (ATP 2 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
None

Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances). Dir. 99/45/EEC
(Classification, packaging and labelling of dangerous preparations). Dir. 98/24/EC (Risks related to
chemical agents at work). Dir. 2000/39/EC (Occupational exposure limit values); Dir. 2006/8/CE,
REACH Regulation (1907/2006)

REACH Regulatio n° 1907/2006 (REACH) – Art. 59 (Substances in “Candidate List”): N.A.
CLP Regulation n° 1272/2008 (CLP) and s.m.i.
Directive n° 1999/45/CE (Dangerous Preparation) and s.m.i.
Directive n° 67/548/CEE (Substances) and s.m.i.

Directive 2000/39/CE and s.m.i. (Professional threshold limit)
15.2. Chemical safety assessment
No

**SECTION 16: Other information**

Text of phrases referred to under heading 3:
- R36/38 Irritating to eyes and skin.
- R38 Irritating to skin.
- R43 May cause sensitization by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- H319 Causes serious eye irritation.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H411 Toxic to aquatic life with long lasting effects.

This safety data sheet has been completely updated in compliance to Regulation 453/2010/EU.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:
- NIOSH - Registry of toxic effects of chemical substances
- ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
- SAX'S - Dangerous properties of industrial materials
- Istituto Superiore di Sanità - Inventario Nazionale Sostanze Chimiche

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ADR</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Road.</td>
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<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (division of the American Chemical Society).</td>
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<td>CLP</td>
<td>Classification, Labeling, Packaging.</td>
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<td>DNEL</td>
<td>Derived No Effect Level.</td>
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<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances.</td>
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<td>GefStoffVO</td>
<td>Ordinance on Hazardous Substances, Germany.</td>
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<tr>
<td>GHS</td>
<td>Globally Harmonized System of Classification and Labeling of Chemicals.</td>
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<tr>
<td>IATA</td>
<td>International Air Transport Association.</td>
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<tr>
<td>IATA-DGR</td>
<td>Dangerous Goods Regulation by the “International Air Transport Association” (IATA).</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization.</td>
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<tr>
<td>ICAO-TI</td>
<td>Technical Instructions by the “International Civil Aviation Organization” (ICAO).</td>
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<tr>
<td>INCI</td>
<td>International Nomenclature of Cosmetic Ingredients.</td>
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<tr>
<td>KSt</td>
<td>Explosion coefficient.</td>
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<td>LC50</td>
<td>Lethal concentration, for 50 percent of test population.</td>
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<td>Acronym</td>
<td>Description</td>
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<tr>
<td>LD50</td>
<td>Lethal dose, for 50 percent of test population.</td>
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<tr>
<td>LTE</td>
<td>Long-term exposure.</td>
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<tr>
<td>PNEC</td>
<td>Predicted No Effect Concentration.</td>
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<tr>
<td>RID</td>
<td>Regulation Concerning the International Transport of Dangerous Goods by Rail.</td>
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<tr>
<td>STE</td>
<td>Short-term exposure.</td>
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<tr>
<td>STEL</td>
<td>Short Term Exposure limit.</td>
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<tr>
<td>STOT</td>
<td>Specific Target Organ Toxicity.</td>
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<tr>
<td>TLV</td>
<td>Threshold Limiting Value.</td>
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<tr>
<td>TWATLV</td>
<td>Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).</td>
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<tr>
<td>OEL</td>
<td>European threshold limit value</td>
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<td>VLE</td>
<td>Threshold Limiting Value.</td>
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<tr>
<td>WGK</td>
<td>German Water Hazard Class.</td>
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