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

1.1 Product identifier

Trade name: VITA ENAMIC® GLAZE

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

1.3 Application of the substance / the mixture

Light-polymerising lacquer

1.4 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
VITA Zahnfabrik H. Rauter GmbH & Co. KG PO Box 1338 D 79704 Bad Säckingen
Tel.: +49 7761/562-0
Fax: +49 7761/562 299

Further information obtainable from:
VITA Zahnfabrik Tel.: +49 7761 562-0
Fax: +49 7761 562 299
email: info@vita-zahnfabrik.com

1.4 Emergency telephone number: Tel.: +49 761 19240

SECTION 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
  Repr. 2 H361f Suspected of damaging fertility.

- GHS05 corrosion
  Eye Dam. 1 H318 Causes serious eye damage.

- GHS07
  Skin Irrit. 2 H315 Causes skin irritation.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  STOT SE 3 H335 May cause respiratory irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
  The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)
Safety data sheet 
according to 1907/2006/EC, Article 31

Printing date 10.08.2015  Version number 2  Revision: 10.08.2015

Trade name: VITA ENAMIC® GLAZE

- Hazard pictograms

GHS02  GHS05  GHS07  GHS08

- Signal word Danger

- Hazard-determining components of labelling:
methyl methacrylate  
2-Propenoic acid, reaction product with Pentaerythrite  
Diphenyl(2,4,6-trimethylbenzoyl)phosphinoxide

- Hazard statements
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H361f Suspected of damaging fertility.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P303+P361+P353 IF ON SKIN (or hair): 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.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: Preparation of methacrylates and amorphous silica.

| CAS: 80-62-6 | Acrylic resin | 10-25% |
| EINECS: 201-297-1 | 2-Propenoic acid, reaction product with Pentaerythrite | 2.5-10% |
| EINECS: 278-355-8 | Diphenyl(2,4,6-trimethylbenzoyl)phosphinoxide | 2.5-10% |

(Contd. on page 3)
SECTION 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 and be sure to call for a doctor.
In case of unconsciousness place the patient stably in a side position for transportation.

After skin contact:
Immediately wash the skin with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

After eye contact:
Rinse the open eye for several minutes under running water. Then consult a doctor.

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 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
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: No special measures required.

Additional information
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:
Prevent seepage into sewage system, workpits and cellars.
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).
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.
SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Avoid contact with skin and eyes.
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.

- Information about fire - and explosion protection:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.

- 7.2 Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles:
      Protect from heat and direct sunlight.
      Store in a cool location.
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions:
      Keep container tightly sealed.
      Store in cool, dry conditions in well sealed receptacles.

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

SECTION 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:
    | 80-62-6 methyl methacrylate | WEL | Short-term value: 416 mg/m³, 100 ppm |
    |                             |     | Long-term value: 208 mg/m³, 50 ppm   |

- 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.
      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:
  Protective gloves

Protective gloves should be changed regularly, especially after intensive contact with the product.
For every workplace a suitable type of protective gloves must be selected.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
· Material of gloves
Butyl rubber (0,7 mm) EN 374
As there are many different conditions in every day work these indications can only serve as an aid to orientation for the selection of suitable gloves for the handling of chemical products. By no means they can replace qualifying examinations by the end-user.
These recommendations only apply to the product mentioned in the safety data sheet. When mixing with other substances or under conditions deviant from norm EN 374 a manufacturer of CE-approved gloves should be referred to.
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
Penetration time: 60 min
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

· Eye protection:
Tightly sealed goggles

· Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:
  Form: Fluid
  Colour: Colourless
  Odour: Characteristic
  Odour threshold: Not determined.
· pH-value: Not determined.
· Change in condition
  Melting point/Melting range: Undetermined.
  Boiling point/Boiling range: 101 °C
· Flash point: 10 °C
· Flammability (solid, gaseous): Not applicable.
· Ignition temperature: 430 °C
· 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: 2.1 Vol %

(Contd. of page 4)
Trade name: VITA ENAMIC® GLAZE

Upper: 12.5 Vol %
- Oxidising properties: Not determined
- Vapour pressure at 20 °C: 47 hPa
- Density at 20 °C: 1.03 g/cm³
  - 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: Not determined.
- Solvent content:
  - Organic solvents: 0.0 %
  - 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity: No dangerous reactions if used according to specifications.
- 10.2 Chemical stability: Stable if used according to specifications.
- Thermal decomposition / conditions to be avoided:
  No decomposition if used according to specifications.
  Protect from heat and direct sunlight.
- 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 decomposition if used according to specifications.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
  - Acute toxicity
  - LD/LC50 values relevant for classification:
    1245638-61-2 2-Propenoic acid, reaction product with Pentaerythrite
    Oral LD50 >2000 mg/kg (rat)
    Dermal LD50 >2000 mg/kg (rabbit)
    Inhalative LC50/4 h >5 mg/l (rabbit)
    75980-60-8 Diphenyl(2,4,6-trimethylbenzoyl)phosphinoxide
    Oral LD50 >5000 mg/kg (rat)
    Dermal LD50 > 2000 mg/kg (rat) ((OECD 402))
  - Primary irritant effect:
    - Skin corrosion/irritation: Irritant to skin and mucous membranes.
    - Serious eye damage/irritation: Irritating effect.
    - Respiratory or skin sensitisation: Sensitisation possible through skin contact.
Trade name: VITA ENAMIC® GLAZE

**SECTION 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.
- **Ecotoxic effects:**
  - Remark: Harmful to fish
- **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.
    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.

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

**SECTION 14: Transport information**

- **14.1 UN-Number**
  - ADR, IMDG, IATA
  UN1247
- **14.2 UN proper shipping name**
  - ADR
    1247 METHYL METHACRYLAT, MONOMER, STABILISIERT, LÖSUNG
  - IMDG, IATA
    METHYL METHACRYLATE MONOMER, STABILIZED, SOLUTION
- 14.3 Transport hazard class(es)
  - ADR, IMDG, IATA

- Class 3 Flammable liquids.
- Label 3

- 14.4 Packing group
  - ADR, IMDG, IATA II

- 14.5 Environmental hazards:
  - Marine pollutant: No

- 14.6 Special precautions for user
  - Danger code (Kemler): Warning: Flammable liquids.
  - EMS Number: F-E,S-D

- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.

- Transport/Additional information:
  - ADR
    - Limited quantities (LQ): 1L
    - Excepted quantities (EQ) Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml
  - Transport category 2
  - Tunnel restriction code D/E

- IMDG
  - Limited quantities (LQ): 1L
  - Excepted quantities (EQ) Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

- UN "Model Regulation": UN 1247, METHYL METHACRYLATE MONOMER, STABILIZED, 3, II

SECTION 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.
  - 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
SECTION 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.
  H315 Causes skin irritation.
  H317 May cause an allergic skin reaction.
  H318 Causes serious eye damage.
  H319 Causes serious eye irritation.
  H331 Toxic if inhaled.
  H335 May cause respiratory irritation.
  H361f Suspected of damaging fertility.
  H411 Toxic to aquatic life with long lasting effects.

- 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)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  Flam. Liq. 2: Flammable liquids, Hazard Category 2
  Acute Tox. 3: Acute toxicity, Hazard Category 3
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
  Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
  Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
  Repr. 2: Reproductive toxicity, Hazard Category 2
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
  Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3