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

1.1 Product identifier

Trade name: PENEFLOOR® HARDENER UFI: KA50-N042-200T-U4YA

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: Industrial floor hardener with quartz aggregates.

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: PENETRON HELLAS S.A. G.E.MH. No: 07278001000 50, THRAKOMAKEDONON AV., 136 79 ACHARNES, GREECE TEL.: +30 210 2448250 - FAX: + 30 210 2476803 Email: info@penetron.gr Site: www.penetron.gr **1.4 Emergency telephone number:**



European Emergency Tel.: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation EC No 1272/2008 CLP:



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.

2.2 Label elements

Labelling according to Regulation EC No 1272/2008 CLP:

The product is classified and labelled according to the CLP regulation. Hazard pictograms:



Signal word: Danger

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| Hazard-deter | mining components of labelling: |
| Cement, portla | |
| Hazard staten | nents: |
| H315 Causes s | kin irritation. |
| H318 Causes s | erious eye damage. |
| | se an allergic skin reaction. |
| H335 May cau | se respiratory irritation. |
| Precautionary | y statements |
| P102 | Keep out of reach of children. |
| P264 | Wash thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing |
| | protection. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305+P351+P3 | 338 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. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Information c | oncerning particular hazards for human and environment: |
| | ith wet cement, fresh concrete or mortar may cause irritation, dermatitis or burns |
| May cause dan | nage to products made of aluminium or other non-noble metals. |
| 2.3 Other haz | ards |
| Results of PB | Γ and vPvB assessment |
| PBT: Not appl | icable. |
| vPvB: Not app | licable. |
| | |
| | Composition/information on ingredients |
| 3.2 Mixtures | Aixture: consisting of the following components. |
| Description: N | virture. consisting of the following components. |

| Ingredients according Regulation (EU) 2020/8/8: | | | |
|---|---|---------|--|
| | quartz | 50-80% | |
| EINECS: 238-878-4 | substance with a Community workplace exposure limit | | |
| | Cement, portland, chemicals | 25-50% | |
| EINECS: 266-043-4 | Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1B, H317; STOT SE 3, H335 | | |
| | Silica-Amorphous Silica fume | 0.1-10% | |
| EINECS: 273-761-1 | | | |
| Additional information: Quartz (SiQ2): Contains less than 1% of respirable quartz ($\phi < 50$ mm) | | | |

Additional information: Quartz (SiO2): Contains less than 1% of respirable quartz (ø <50 mm)

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: No special measures required.

Take affected persons out into the fresh air.

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After inhalation: If breathing is difficult, remove to fresh air. Restore breathing. Keep warm and quiet. Notify physician. In case of unconsciousness place patient stably in side position for transportation. Seek medical treatment in case of complaints.

After skin contact:

Wash the skin immediately with soap and water.

In case of skin irritation, consult a physician.

After eye contact:

Rinse opened eye for at least 15 minutes under running water.

Remove contact lenses and continue rinsing for several minutes

If symptoms persist, consult a doctor.

Avoid strong water jet-risk of cornea damage, consult a doctor.

After swallowing:

Drink plenty of water and provide fresh air. Call for a doctor immediately. 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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray.

Sand or earth

5.2 Special hazards arising from the substance or mixture No further relevant information available.5.3 Advice for firefighters

Protective equipment:

During fire-fighting wear suitable respiratory device (SCBA) with a full face-piece operated in positive pressure mode.

Cool closed containers exposed to fire by spraying water.

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:

Wear protective equipment. Keep unprotected persons away.

Avoid formation of dust.

Goggles and/ or face shield, if contact with eyes or splashes are anticipated.

Avoid contact with skin and eyes.

Ensure adequate ventilation.

Avoid inhalation of dust.

6.1.1 For non-emergency personnel Avoid contact with dripping or leaking material

6.1.2 For emergency responders

First-aid responders must wear protectice clothing, gloves, goggles and respiratory device with filter type A. **6.2 Environmental precautions:**

Prevent product from entering sewers, rivers or other bodies of water. Note: solidified product may clog drains and sewers.

6.3 Methods and material for containment and cleaning up: Pick up mechanically.

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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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Do not breathe dust. Do not ingest. Ensure good ventilation/exhaustion at the workplace. Provide suction extractors if dust is formed. Do not eat, drink or smoke during the usage of the product. Ensure adequate ventilation Avoid contact with the eyes and skin Wash hands before each break and after finishing work. Information about fire - and explosion protection: No special measures required. 7.2 Conditions for safe storage, including any incompatibilities Storage: Store in cool, dry conditions in well sealed receptacles. Requirements to be met by storerooms and receptacles: Store in a cool location. Store in original container. Information about storage in one common storage facility: Not required. Further information about storage conditions: Keep away from children 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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Ingredients with limit values that require monitoring at the workplace:

CAS: 65997-15-1 Cement, portland, chemicals

WEL (Great Britain) Long-term value: 10* 4** mg/m³

| , |
|---|
| , |

CAS: 14808-60-7 quartz

BOELV (EU) Long-term value: 0.1* mg/m³ *respirable fraction

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

8.2.1. Appropriate engineering controls Provide adequate ventilation.

Individual protection measures, such as personal protective equipment General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Do not eat, drink or smoke while using the product.

Avoid contact with skin and eyes.

Avoid inhalation of dust.

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Safety data sheet complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

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Respiratory protection:

Use an EN 136 certified face mask with a certified EN 14387 type A gas filter.

If filter respirators are not suitable, use EN 14594 Certified Compressed Air Breathing Apparatus or Certified Compressed Air Breathing Apparatus EN 14593-1 or Certified Autonomous Closed Circuit Breathable EN5 open circuit air EN 137.

Hand protection



Protective gloves resistant to chemicals (standard EN 374-1)

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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 mixture 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 determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. **Eye/face protection**



Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:



Protective work clothing

SECTION 9: Physical and chemical properties

| 9.1 Information on basic physical and chemical physical | roperties |
|---|-----------------|
| General Information | |
| Physical state | Solid |
| Colour: | grey, white |
| Odour: | Odourless |
| Odour threshold: | Not determined |
| Melting point/freezing point: | Not determined |
| Boiling point or initial boiling point and boiling | |
| range | Not determined |
| Flammability | Not applicable |
| Lower and upper explosion limit | |
| Lower: | Not determined |
| Upper: | Not determined |
| Flash point: | Not applicable |
| Auto-ignition temperature: | Not determined. |
| Decomposition temperature: | Not determined |

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Trade name: PENEFLOOR® HARDENER (Contd. of page 5) 9 pН Viscosity: **Kinematic viscosity** Not determined **Kinematic viscosity Dynamic:** Not determined **Solubility** Not miscible water: Partition coefficient n-octanol/water (log value) Not determined Not determined Vapour pressure: **Density and/or relative density Density:** Not determined Relative density at 20 °C 1.6±0.5 kg/lt Not determined Vapour density **Particle characteristics** See item 3. 9.2 Other information **Appearance:** Form: Dust Important information on protection of health and environment, and on safety. **Auto-ignition temperature:** Not determined **Explosive properties:** Product does not present an explosion hazard. **Cloud point / clarification point: Oxidising properties** Not considered as oxidising. **Evaporation rate** Not determined Information with regard to physical hazard classes Void **Explosives** Flammable gases Void Aerosols Void Void **Oxidising gases** Gases under pressure Void **Flammable liquids** Void Void **Flammable solids** Self-reactive substances and mixtures Void **Pyrophoric liquids** Void **Pyrophoric solids** Void Self-heating substances and mixtures Void Substances and mixtures, which emit flammable gases in contact with water Void **Oxidising liquids** Void **Oxidising solids** Void **Organic peroxides** Void Void **Corrosive to metals Desensitised explosives** Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

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10.2 Chemical stability

Thermal decomposition / conditions to be avoided

No decomposition if used and stored according to specifications.

Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid Avoid heat, flames, sparks, other sources of ignition.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products No dangerous decomposition products known.

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SECTION 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.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye damage.

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

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

STOT-single exposure

The product is classified as Specific Target Organ Toxicity after single exposure Category 3 May cause respiratory irritation.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Additional toxicological information:

Repeated dose toxicity Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

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.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects No further relevant information available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation



Dispose according to National Regulations.

Contact manufacturer for recycling information.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations. Packaging may be reused or recycled after cleaning.

| SECTION 14: Transport information | |
|--|-----------------|
| 14.1 UN number or ID number | |
| ADR, ADN, IMDG, IATA | Void |
| 14.2 UN proper shipping name | |
| ADR, ADN, IMDG, IATA | Void |
| 14.3 Transport hazard class(es) | |
| ADR, ADN, IMDG, IATA | |
| Class | Void |
| 14.4 Packing group | |
| ADR, IMDG, IATA | Void |
| 14.5 Environmental hazards: | Not applicable. |
| 14.6 Special precautions for user | Not applicable. |
| 14.7 Maritime transport in bulk according to I | MO |
| instruments | Not applicable. |
| UN "Model Regulation": | Void |

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture REACH Regulation 1907/2006/EC

Regulation (EU) 2020/878

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CLP Regulation 1272/2008/EC

The product contains less than 2 ppm (0,0002 w/w) Cr (VI) according to Annex XVII of REACH Regulation. The product contains less than 1% respirable quartz ($\emptyset < 50$ microns) and therefore it is not subject to be classified as harmful to health.

Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.

Council Directive 94/33/EC on the protection of young people at work, as ammended.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 47

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National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

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

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Recommended restriction of use

Prolonged and / or massive exposure to dust containing respirable crystalline silica can cause silicosis, a nodular pulmonary fibrosis caused by pulmonary deposition of very small particles of respirable crystalline silica.

In June 2003, the SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of crystalline silica dust is silicosis. "There is sufficient information to conclude that relative is increased the relative risk of causing lung cancer in persons with silicosis (and apparently, not in employees who do not suffer from silicosis who are exposed to silica dust in quarries and in the ceramic industry). Therefore preventing silicosis and decreases the risk of cancer"(SCOEL SUM Doc 94-final, June 2003).

The agreement, following social dialogue of all stakeholders on the protection of workers through the proper management and use of crystalline silica and products containing it was signed on 25 April 2006. This autonomous agreement, the European Commission received financial support from the European Commission, based on a Good Practice Guide. The requirements of the Agreement shall apply from 25 October 2006. The Agreement was published in the Official Journal of the European Union (2006 / C 279/02). The text of the Agreement, its Annexes, including the Good Practice Guide, available at http://www.nepsi.eu and provide useful information and guidance for the handling of respirable crystalline silica containing products. The bibliography is available on request in EUROSIL, (European Association of Industrial Production of Crystalline Silicon.

Department issuing SDS:

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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 EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances

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|---|--------------------|
| CAS: Chemical Abstracts Service (division of the American Chemical Society) | |
| PBT: Persistent, Bioaccumulative and Toxic | |
| SVHC: Substances of Very High Concern | |
| vPvB: very Persistent and very Bioaccumulative | |
| Skin Irrit. 2: Skin corrosion/irritation – Category 2 | |
| Eye Dam. 1: Serious eye damage/eye irritation – Category 1 | |
| Skin Sens. 1: Skin sensitisation – Category 1 | |
| Skin Sens. 1B: Skin sensitisation – Category 1B | |
| STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 | |
| Sources SDS of the supplier | |
| * Data compared to the previous version altered. | |
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