1 Identification

· **Product Identifier**
  - **Trade name:** PSI PolyClay Canes and PSI PolyClay Bricks
  - **Product Number:** PSI-PC-C&B

· **Relevant identified uses of the substance or mixture and uses advised against:**

· **Product Description**
  Polymer Clay Canes; various colors and designs 5/8" diameter x 3" long
  Polymer Clay Bricks; various colors 2oz each

· **Application of the substance / the mixture:** Industry Specific Application

· **Details of the Supplier of the Safety Data Sheet:**
  - **Manufacturer/Supplier:** Penn State Industries
    9900 Global Road
    Philadelphia, PA 19115
    polyclay@pennstateind.com
    www.pennstateind.com
  - **Emergency telephone number:** 215-676-7606

2 Hazard(s) Identification

· **Classification of the substance or mixture:**
  - GHS08 Health hazard
  - Carc. 1A H350 May cause cancer.
  - Repr. 1 H360 May damage fertility or the unborn child.

· **Label elements:**
  - **GHS label elements**
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms:**
    - GHS07
    - GHS08

· **Signal word:** Danger

· **Hazard-determining components of labeling:**
  - Polyvinyl chloride
  - di-"isononyl" phthalate
  - dibutyl phthalate
  - BBP

· **Hazard statements:**
  - H302 Harmful if swallowed.
  - H317 May cause an allergic skin reaction.

(Contd. on page 2)
H350 May cause cancer.
H360 May damage fertility or the unborn child.

**Precautionary statements:**

- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P280 Wear protective gloves.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
- P363 Wash contaminated clothing before reuse.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P330 Rinse mouth.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Unknown acute toxicity:**

This value refers to knowledge of known, established toxicological or ecotoxicological values.
0 % of the mixture consists of component(s) of unknown toxicity.

**Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

**NFPA ratings (scale 0 - 4)**

- Health = 1
- Fire = 0
- Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

- HEALTH Health = 1
- FIRE Fire = 0
- REACTIVITY Reactivity = 0

**Hazard(s) not otherwise classified (HNOC):** None known

**3 Composition/Information on Ingredients**

**Chemical characterization:** Mixtures

**Description:** Mixture of substances listed below with non-hazardous additions.

**Dangerous Components:**

<table>
<thead>
<tr>
<th>CAS: 9002-86-2</th>
<th>RTECS: KV0350000</th>
<th>Polyvinyl chloride</th>
<th>Acute Tox. 3, H301; STOT SE 3, H335</th>
<th>25-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 7631-86-9</td>
<td>RTECS: TI 0875000</td>
<td>Silicon Dioxide</td>
<td>Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320</td>
<td>≤ 2.5%</td>
</tr>
<tr>
<td>CAS: 84-74-2</td>
<td>RTECS: TH 9990000</td>
<td>dibutyl phthalate</td>
<td>Repr. 1B, H360; Aquatic Acute 1, H400</td>
<td>≤ 2.5%</td>
</tr>
<tr>
<td>CAS: 85-68-7</td>
<td>RTECS: TI 0875000</td>
<td>BBP</td>
<td>Repr. 1B, H360; Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
<td>≤ 2.5%</td>
</tr>
</tbody>
</table>

(Contd. on page 3)
Trade name: PSI PolyClay Canes and PSI PolyClay Bricks

<table>
<thead>
<tr>
<th>CAS:</th>
<th>Chemical Name</th>
<th>Carcinogenicity</th>
<th>Reproductive Toxicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>117-81-7</td>
<td>Bis(2-Ethylhexyl) Phthalate</td>
<td>Carc. 2, H351; Repr. 1B, H360</td>
<td>≤ 2.5%</td>
<td></td>
</tr>
<tr>
<td>117-84-0</td>
<td>Di-n-octyl phthalate</td>
<td>Repr. 1A, H360</td>
<td>≤ 2.5%</td>
<td></td>
</tr>
<tr>
<td>28553-12-0</td>
<td>Di-“isononyl” phthalate</td>
<td>Carc. 1A, H350; Repr. 1A, H360; Skin Sens. 1, H317; STOT SE 3, H335; Eye Irrit. 2B, H320</td>
<td>≤ 2.5%</td>
<td></td>
</tr>
<tr>
<td>84-75-3</td>
<td>Dihexyl phthalate</td>
<td>Repr. 1B, H360</td>
<td>≤ 2.5%</td>
<td></td>
</tr>
</tbody>
</table>

Additional information:
The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

- **Description of first aid measures:**
  - **General information:** Avoid fumes
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After swallowing:** If swallowed and symptoms occur, consult a doctor.
  - **Information for doctor:**
    - Most important symptoms and effects, both acute and delayed: No further relevant information available.
    - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media:**
  - **Suitable extinguishing agents:** CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - **Special hazards arising from the substance or mixture:** No further relevant information available.
  - **Advice for firefighters:** Do not allow product to come into contact with open flame
  - **Protective equipment:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** Dispose of the collected material according to regulations.
- **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

- **Handling**
  - **Precautions for safe handling:**
    - Do not heat above 175°C.
    - Do not allow product to come into contact with open flame, hot knife, or wire.
Trade name: PSI PolyClay Canes and PSI PolyClay Bricks

Use over thermometer when hardening.
Do not use microwave.
Do not overheat - overheating causes harmful vapors (hydrogen chloride vapor)

- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities:**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
  - Keep material dry.
  - Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

### 8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
  - **Components with occupational exposure limits:**
  The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
  At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>9002-86-2 Polyvinyl chloride</td>
<td>Long-term value: 1* mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>471-34-1 Calcium Carbonate</td>
<td>Long-term value: 15* 5** mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7631-86-9 Silicon Dioxide</td>
<td>Long-term value: 3 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term value: 10 mg/m³</td>
<td>Short-term value: 3000 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term value: 4 E mg/m³</td>
<td>Long-term value: 6 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term value: 4 E mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84-74-2 dibutyl phthalate</td>
<td>Long-term value: 5 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>117-81-7 Bis(2-Ethylhexyl) Phthalate</td>
<td>Long-term value: 5 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>See Pocket Guide App. A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 5)
Safety Data Sheet (SDS)
OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 08/28/2016  Reviewed on 08/28/2016

Trade name: PSI PolyClay Canes and PSI PolyClay Bricks

<table>
<thead>
<tr>
<th>TLV</th>
<th>Long-term value: 5 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>28553-12-0 di-&quot;isononyl&quot; phthalate</td>
<td>TWA Short-term value: 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 5 mg/m³</td>
</tr>
</tbody>
</table>

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
  - **Personal protective equipment:**
  - **General protective and hygienic measures:** No special measures required.
  - **Breathing equipment:** Not necessary if room is well-ventilated.
  - **Protection of hands:**
    - **Protective gloves:**

  - **Material of gloves:** Not required.
  - **Penetration time of glove material:** Not applicable.
  - **Eye protection:** Not required.

**9 Physical and Chemical Properties**

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - **Form:** Solid
    - **Color:** Various colors
    - **Odor:** Recognizable
    - **Odor threshold:** Not determined.
  - **pH-value:** Not applicable.
  - **Change in condition**
    - **Melting point/Melting range:** Not determined.
    - **Boiling point/Boiling range:** Not determined.
  - **Flash point:** None
  - **Flammability (solid, gaseous):** Not determined.
  - **Ignition temperature:** Not determined.
  - **Decomposition temperature:** Not determined.
  - **Auto igniting:** Product is not self-igniting.
  - **Danger of explosion:** Product does not present an explosion hazard.
  - **Explosion limits:**
    - **Lower:** Not determined.
    - **Upper:** Not determined.
  - **Vapor pressure:** Not applicable.
  - **Density:**
    - **Relative density:** Not determined.
    - **Vapor density:** Not applicable.
    - **Evaporation rate:** Not applicable.

(Contd. on page 6)
Trade name: PSI PolyClay Canes and PSI PolyClay Bricks

- **Solubility in / Miscibility with:**
  - Water: Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.
- **Solvent content:**
  - Organic solvents: 45.0 %
  - VOC content: 45.0 %
- **Other information:** No further relevant information available.

### 10 Stability and Reactivity

- **Reactivity:**
  - Overheating over hardening polymer clays will result in blackening and release of irritating gases including hydrogen chloride vapor.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- ** Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Overheating - Do not heat above 175°C.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological Information

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

<table>
<thead>
<tr>
<th>LD/LC50 values that are relevant for classification:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9002-86-2 Polyvinyl chloride</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
</tr>
<tr>
<td>471-34-1 Calcium Carbonate</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
</tr>
<tr>
<td>7631-86-9 Silicon Dioxide</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
</tr>
<tr>
<td></td>
<td>LD50</td>
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<tr>
<td></td>
<td>LC50/4 h</td>
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<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>LD50</td>
</tr>
<tr>
<td>85-68-7 BBP</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
</tr>
<tr>
<td>117-81-7 Bis(2-Ethylhexyl) Phthalate</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
</tr>
<tr>
<td></td>
<td>LD50</td>
</tr>
</tbody>
</table>

(Contd. on page 7)
43.0.21

Inhalative LC50/96 hours >0.32 mg/l (Trout)
>0.67 mg/l (Fathead Minnow)

117-84-0 Di-n-octyl phthalate
Oral LD50 6513 mg/kg (mouse)

28553-12-0 di-"isononyl" phthalate
Oral LD50 10000 mg/kg (rat)
Dermal LD50 3160 mg/kg (rabbit)
Inhalative LC50/4 h >4.4 mg/l (rat)

Primary irritant effect:
· On the skin: May cause an allergic skin reaction.
· On the eye: No irritating effect.
· Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Carcinogenic

Carcinogenic categories:
· IARC (International Agency for Research on Cancer):
  Group 1 - Carcinogenic to humans
  Group 2A - Probably carcinogenic to humans
  Group 2B - Possibly carcinogenic to humans
  Group 3 - Not classifiable as to its carcinogenicity to humans
  Group 4 - Probably not carcinogenic to humans
  Group 1 - Carcinogenic to humans
  Group 2A - Probably carcinogenic to humans
  Group 2B - Possibly carcinogenic to humans
  Group 3 - Not classifiable as to its carcinogenicity to humans
  Group 4 - Probably not carcinogenic to humans

9002-86-2 Polyvinyl chloride 3
7631-86-9 Silicon Dioxide 3

NTP (National Toxicology Program):
None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.

12 Ecological Information

Toxicity:

Aquatic toxicity:
7631-86-9 Silicon Dioxide
EC50 >1000 mg/l (daphnia) (OECD 202)

Persistence and degradability: No further relevant information available.
Behavior in environmental systems:
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Additional ecological information:
General notes: Not known to be hazardous to water.

(Contd. on page 8)
Trade name: PSI PolyClay Canes and PSI PolyClay Bricks

- Results of PBT and vPvB assessment:
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal Considerations

- Waste treatment methods:
  - Recommendation: Smaller quantities can be disposed of with household waste. Observe all federal, state and local environmental regulations when disposing of this material.
- Uncleaned packagings
  - Recommendation: Disposal must be made according to official regulations.

14 Transport Information

- UN-Number: Non-Regulated Material
- DOT, ADR, ADN, IMDG, IATA
- UN proper shipping name: Non-Regulated Material
- DOT, ADR, ADN, IMDG, IATA
- Transport hazard class(es):
  - DOT, ADR, ADN, IMDG, IATA: Non-Regulated Material
  - Class: Non-Regulated Material
  - Packing group: Non-Regulated Material
  - Environmental hazards: Not applicable.
  - Special precautions for user: Not applicable.
  - Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.
  - UN "Model Regulation": Non-Regulated Material

15 Regulatory Information

- Safety, health and environmental regulations/legislation specific for the substance or mixture:
  - SARA (Superfund Amendments and Reauthorization):
    - Section 355 (extremely hazardous substances):
      None of the ingredients are listed.
    - Section 313 (Specific toxic chemical listings):
      None of the ingredients are listed.
  - TSCA (Toxic Substances Control Act):
    All ingredients are listed or exempt from listing.
  - California Proposition 65:
    - Chemicals known to cause cancer:
      None of the ingredients are listed.
    - Chemicals known to cause reproductive toxicity for females:
      None of the ingredients are listed.
    - Chemicals known to cause reproductive toxicity for males:
      None of the ingredients are listed.

(Contd. on page 9)
Trade name: PSI PolyClay Canes and PSI PolyClay Bricks

- **Chemicals known to cause developmental toxicity:**
  None of the ingredients are listed.

- **New Jersey Right-to-Know List:**
  9002-86-2 Polyvinyl chloride

- **New Jersey Special Hazardous Substance List:**
  None of the ingredients are listed.

- **Pennsylvania Right-to-Know List:**
  7631-86-9 Silicon Dioxide

- **Pennsylvania Special Hazardous Substance List:**
  None of the ingredients are listed.

- **Carcinogenic categories:**
  - **EPA (Environmental Protection Agency):**
    None of the ingredients are listed.
  - **TLV (Threshold Limit Value established by ACGIH):**
    9002-86-2 Polyvinyl chloride
  - **NIOSH-Ca (National Institute for Occupational Safety and Health):**
    None of the ingredients are listed.

- **GHS label elements**
  The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**
  ![GHS07](image) ![GHS08](image)

- **Signal word:** Danger

- **Hazard-determining components of labeling:**
  Polyvinyl chloride
  di-"isononyl" phthalate
  dibutyl phthalate
  BBP

- **Hazard statements:**
  H302 Harmful if swallowed.
  H317 May cause an allergic skin reaction.
  H350 May cause cancer.
  H360 May damage fertility or the unborn child.

- **Precautionary statements:**
  P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
  P280 Wear protective gloves.
  P264 Wash thoroughly after handling.
  P270 Do not eat, drink or smoke when using this product.
  P272 Contaminated work clothing must not be allowed out of the workplace.
  P201 Obtain special instructions before use.
  P202 Do not handle until all safety precautions have been read and understood.
  P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

(Contd. on page 10)
Trade name: PSI PolyClay Canes and PSI PolyClay Bricks

P363 Wash contaminated clothing before reuse.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P330 Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of water.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**National regulations:**
The product is subject to be classified according with the latest version of the regulations on hazardous substances.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other Information**
The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

**Date of preparation / last revision:** 08/28/2016 / 4

**Abbreviations and acronyms:**
- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- 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)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Acute Tox. 3: Acute toxicity – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
- Skin Sens. 1: Skin sensitisation – Category 1
- Carc. 1A: Carcinogenicity – Category 1A
- Carc. 2: Carcinogenicity – Category 2
- Repr. 1: Reproductive toxicity – Category 1
- Repr. 1A: Reproductive toxicity – Category 1A
- Repr. 1B: Reproductive toxicity – Category 1B
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

*Data compared to the previous version altered.*

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