The Niches are a composite insert of 2lb density EPS expanded polystyrene foam insulation, as a base material. The entire assembly is coated with Water Armor waterproof membrane. A finish coat of latex-modified, cementitious coating is then applied. This MSDS will be treated as a two-part document covering: (A) the expanded polystyrene foam thermal insulation and (B) the waterproof coating.

(A) EXPANDED POLYSTYRENE THERMAL INSULATION

1. **Product and Company Identification:**
   - **Product Name:** Chang He EPS
   - **Manufacturer:** Chang He Foam Company; Tianjin, China

2. **Composition/Information on Ingredients:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TLV</th>
<th>PEL</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polystyrene</td>
<td></td>
<td></td>
<td>009003-53-6</td>
</tr>
<tr>
<td>Flame Retardant Additive</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   This document was prepared pursuant to the OSHA hazard communication standard (29 CFR 1910.1200). In addition, other substances not hazardous per this OSHA standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard. This part of the document has been taken from MSDS information supplied to us from THE MANUFACTURER.

3. **Physical and Chemical Properties:**

   - Boiling Point: Not Applicable
   - Melting Point: Softens at 175 °F to 220 °F
   - Percent Volatiles: <4% (pentane and water)
   - Vapor Pressure: Not Applicable
   - Vapor Density: Not Applicable
   - Evaporation Rate: None
   - Solubility in water: Insoluble
   - Specific Gravity/Density: 2.0 pcf to 3.0 pcf
   - Appearance: White Panels
   - Odor: Slight Hydrocarbon Odor
   - pH: Not Applicable
   - Physical State: Solid

4. **Fire and Explosion Hazard Data:**

   - Flash Point: 610 °F Min.
   - Method Used: ASTM D 1929
   - Flammable Limits LFL: Not Applicable
   - Flammable Limits UFL: Not Applicable
   - Extinguishing Media: Water Fog, Carbon Dioxide, Dry Chemical, Foam

Revised 5/25/10
Hazardous Combustion Products: Not Applicable

Fire-fighting Instructions: Keep people away. Isolate fire area and deny unnecessary entry. If material is molten, do not apply direct water stream. Use fine water spray or foam. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone.

Protective Fire-fighting Equipment: Use approved self-contained breathing apparatus and personal protective clothing (turn out gear)

5. Reactivity Data:

Stability: This is a stable material, avoid sources of ignition

Incompatibility with Other Materials: Reactive with oxidizing agents. Organic solvents, esters, amines and aldehydes will dissolve product. High temperature, poor ventilation with freshly expanded product may create hazardous, explosive or fire conditions.

Hazardous Decomposition Products: Does not normally decompose. Evolution of small amounts of hydrogen halides occurs when heated above 250°C. Under high heat, non-flaming conditions, small amounts of aromatic hydrocarbons such as styrene and ethylbenzene are generated. Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Hazardous decomposition products may include and are not limited to ethylbenzene, aromatic compounds, aldehydes, hydrogen bromide, hydrogen chloride, hydrogen fluoride, polymer fragments, and styrene.

Hazardous Polymerization: Will not occur

6. Health Hazard Data:

Eye: Dust particles may cause eye irritation and/or injury
Skin Contact: None. May produce slight irritation is a few individuals
Ingestion: Biologically inert. May act as an obstruction if swallowed.
Inhalation: Little or no smell. May cause dizziness in a few individuals.
Systemic (Other Target Organ) Effects: None.
Cancer Information: None.
Teratology (Birth Defects): None.
Reproductive Effects: None.

7. First Aid:

Eyes: Flush eyes with water for 15 minutes. Seek medical attention if irritation persists.
Skin: Wash with mild soap and running water. Remove and launder contaminated clothing before reuse. Seek medical attention if irritation persists.

Ingestion: Ingestion of this material is unlikely. If it does occur, do not induce vomiting, seek medical attention.

Inhalation: Move person to fresh air. Seek medical attention if irritation persists.

Note to Physician:

8. Handling and Storage:

Handling: Use protective equipment (gloves, safety glasses, etc.) when handling uncontained material. Avoid breathing dusts from this material.

Storage: Store in a well ventilated area. Avoid direct exposure to very high heat, open flame or other source of ignition.

9. Accidental Release Measures: (See Section NUM for Regulatory Information)

Protect People: Clear non-emergency personnel from area. Use appropriate safety equipment. For additional information, refer to Section 10, Exposure Controls/Personal Protection.

Protect the Environment: Fire/water run off may be toxic.

Cleanup: Pick up, or if dust or in small pieces, sweep up and place in suitable container for disposal. See Section 11, Disposal Considerations.

10. Exposure Controls/Personal Protection:

Engineering Controls: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, including but not limited to saw, router, or hot wire cutting, use an approved air-purifying respirator. In dusty atmospheres, use an approved dust respirator.

Skin Protection: No precaution other than clean body-covering clothing should be needed.

Eye Protection: Use Safety Glasses. If there is a potential for exposure to particles, which could cause mechanical injury to the eye, wear chemical goggles.
11. Ecological Information:

Ecotoxicity: This product has not been tested. Based on information related to all raw materials in the finished product, it is not expected to harm the ecosystem through its applied use.

12. Disposal Considerations: (See Section NUM for Regulatory Information)

Disposal:

For unused & uncontaminated product,

For additional information, refer to Section NUM, Handling & Storage Information.

THE MANUFACTURER can provide names of information resources to help identify waste management companies and other facilities, which recycle, reprocess or manage PRODUCT TYPES. Call MANUFACTURER at PHONE for further details.

13. Transportation Information:

Department of Transportation (DOT): This product is not regulated by the D.O.T. when shipped domestically by land.

Canadian TDG Information: This product is not regulated by the T.D.G. when shipped domestically by land.

14. Regulatory Information: (Not meant to be all-inclusive - selected regulations represented)

NOTICE: The information contained herein is based on data considered to be accurate. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with Federal, State/Provincial, and local laws. While the information is believed to be reliable, NO Warranty, expressed or implied, is given in regards to the accuracy of this data or the results to be obtained from the use thereof. Since the use of this information and the conditions and use of this product are controlled by the user, it is the user’s obligation to determine the conditions of safe use of the product. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

U.S. Regulations

SARA 313 Information: This product contains the following substances subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
**Chemical Name** | **CAS Number** | **Concentration**
---|---|---
Chlorodifluoroethane | 000075-00-3 | < 15%

**SARA Hazard Category:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA, Title III) and is considered, under applicable definitions, to meet the following categories:

Not to have met any hazard category.

**State Right-to-Know:** The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorodifluoroethane</td>
<td>000075-00-3</td>
<td>NJ2 PA1 NJ3</td>
</tr>
<tr>
<td>Talc</td>
<td>014807-96-6</td>
<td>PA1 NJ3</td>
</tr>
</tbody>
</table>

NJ2=New Jersey Environmental Hazardous Substance (present at greater than or equal to 1.0%)

NJ3=New Jersey Workplace Hazardous Substance (present at greater than or equal to 1.0%)

PA1=Pennsylvania Hazardous Substance (present at greater than or equal to 1.0%)

**OSHA Hazard Communication Standard:** This product is not a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Canadian Regulations**

**WHMIS Information:** The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

This Product is not a “Controlled Product” under WHMIS.

**Canadian Environmental Protection Act (CEPA):** All substances in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

**15. Other Information:**

**National Fire Protection Association (NFPA) Ratings:**

- Health: 0
- Flammability: 2
- Reactivity: 0

**HMIS Ratings:**

- Health: 0
- Flammability: 2
- Reactivity: 0
(B) WATER ARMOR WATERPROOF MEMBRANE

1. Product and Company Identification:

   Product Name: Water Armor
   Company: T. Clear Corporation, 3255 Symmes Road, Hamilton, Ohio 45015
   Emergency Contact: (800) 544-7398

2. Composition/Information on Ingredients:

   Chemical Name | WT% | TLV (mg/m\(^3\)) | PEL (mg/m\(^3\)) | CAS Number | STEL | CEIL
   Silica, Crystalline Quartz | 15.00 – 40.00 | 0.05 | 0.1 | 14808-60-7 | (NE) | (NE)

   (T) - Total        (R) - Respirable        (NE) - Not Established        (P) - Proprietary

This document was prepared pursuant to the OSHA hazard communication standard (29 CFR 1910.1200). In addition, other substances not hazardous per this OSHA standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard. This document has been taken from MSDS information supplied to us from Degussa Wall Systems.

3. Physical and Chemical Properties:

   Boiling Point: No data available
   Melting Point: No data available
   Freeze Point: No data available
   Vapor Pressure: No data available
   Vapor Density: Heavier than air
   Partition coefficient (n-octanol/water): No data available
   Evaporation Rate: Slower than Butyl acetate
   Solubility in water: Dilutable
   Specific Gravity/Density: 1.5
   Viscosity: No data available
   Odor: Mild acrylic
   Odor Threshold: No data available
   pH: 9-10
   Physical State: Liquid
   VOC Concentration as applied: 11 g/l
   (less than water and exempt solvents)

4. Fire and Explosion Hazard Data:

   Flash Point: >200.01°F (93.34°C)
   Flammable Limits LFL: No data available
   Flammable Limits UFL: No data available
   Extinguishing Media: Water fog, foam, carbon dioxide (CO2), dry chemical

   Hazardous Combustion Products: No data available.
Fire-fighting Instructions: Suitable extinguishing methods include water fog, foam, carbon dioxide (CO2), and dry chemical.

Protective Fire-fighting Equipment: As in any fire, wear pressure demand self-contained breathing apparatus (NIOSH approved or equivalent) and full protective gear.

5. Reactivity Data:

Stability: Stable under recommended storage conditions.

Conditions To Avoid - No data available.

Materials to Avoid - Strong acids and strong bases.

Hazardous Decomposition Products: No data available.

Hazardous Polymerization: Will not occur under normal conditions.

6. Health Hazard Data:

Eye: Can cause slight irritation.

Skin Contact: Can cause slight irritation.

Ingestion: Can cause slight irritation.

Inhalation: Can cause slight irritation.

Systemic (Other Target Organ) Effects: No data available

Cancer Information: This product contains Crystalline (quartz) Silica, which has been listed as a human carcinogen by NTP (Group 1) and IARC (Human Carcinogen) and a Suspected Human Carcinogen by ACGIH (category A2). Repeated or prolonged over exposure to free respirable Crystalline (quartz) Silica can cause silicosis or other delayed and serious lung injury. No exposure to respirable Crystalline (quartz) Silica anticipated with recommended use of this product.

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, Crystalline Quartz</td>
<td>Suspected human carcinogen</td>
<td>Human carcinogen</td>
<td>(NE)</td>
<td>(NE)</td>
</tr>
</tbody>
</table>

Teratology (Birth Defects): No data available.

Reproductive Effects: No data available.

7. First Aid:

Eyes: Flush eyes with water, lifting upper and lower lids occasionally for 15 minutes. Seek medical attention.

Skin: Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists seek medical attention. Wash contaminated clothing before reuse.
F i n P a n  I n c.
PF N I C H E S
PREFORMED UNDERLAYMENT COMPONENTS

MATERIAL SAFETY DATA SHEET

Ingestion: Do not induce vomiting without medical advice. If conscious, drink plenty of water. If a person feels unwell or symptoms of skin irritation appear, consult a physician. If a person vomits, place him/her in the recovery position. Never give anything by mouth to an unconscious person.

Inhalation: Remove victim from exposure. If there is difficulty with breathing, administer oxygen. If breathing has stopped, administer artificial respiration, preferably mouth-to-mouth. Seek immediate medical attention.

8. Handling and Storage:

Handling: Keep out of reach of children. For personal protection see section 10.

Storage: Keep tightly closed.

9. Accidental Release Measures: (See Section 15 for Regulatory Information)

Containment Procedures: Take action to eliminate source of leak; contain spill by diking.

Cleanup Procedures: Wear appropriate protective equipment (refer to section 10). Take action to eliminate source of leak; prevent from entry into open streams or sewers; contain spill by diking; vacuum up liquid or use absorbent media; remove to storage for disposal and rinse residual stain with water.

Special Procedures: None known.

10. Exposure Controls/Personal Protection:

Engineering Controls: Local exhaust ventilation can be necessary to control any air contaminants to within their TLV’s during the use of this product.

Respiratory Protection: In case of insufficient ventilation wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use NIOSH approved respirators.

Skin Protection: Wear as appropriate: impervious clothing, preventive skin protection and/or impervious gloves.

Eye Protection: Wear as appropriate: safety glasses with side-shields, goggles and/or face shield.

Hygienic Practices: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas. Wash hands before breaks and at the end of the workday. When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practices.
11. **Toxicological Information:**

**Acute inhalation toxicity**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Type</th>
<th>Value</th>
<th>Species</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>LC50</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Component

Silica, Crystalline Quartz | LC50 | No data available |

**Acute oral toxicity**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Type</th>
<th>Value</th>
<th>Species</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>LD50 (Oral)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Component

Silica, Crystalline Quartz | LD50 (Oral) | 1,300 mg/kg |

**Acute dermal toxicity**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Type</th>
<th>Value</th>
<th>Species</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>LD50 (Dermal)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Component

Silica, Crystalline Quartz | LD50 (Dermal) | No data available |

12. **Ecological Information:**

*Movement & Partitioning:* No data available.

*Degradation & Persistence:* No data available.

*Ecotoxicity:* There is no data available for this product.

13. **Disposal Considerations:** (See Section 15 for Regulatory Information)

*Disposal:* Handle disposal of waste material in a manner, which complies with local, state, province and federal regulations.

For *unused & uncontaminated product*, use excess product in an alternate beneficial application.
FinPan Inc.
PF NICHEs
PREFORMED UNDERLAYMENT COMPONENTS

MATERIAL SAFETY DATA SHEET
For additional information, refer to Section 8, Handling & Storage Information.

Degussa Wall Systems can provide names of information resources to help identify waste management companies and other facilities, which recycle, reprocess or manage Water Armor. Call Degussa Wall Systems at (800) 424-9300 for further details.

14. Transportation Information:

*Department of Transportation (DOT):* Proper shipping name - Not regulated.

*International Air Transport Association (IATA):* Proper shipping name - Not regulated.

15. Regulatory Information: (Not meant to be all-inclusive - selected regulations represented)

**NOTICE:** The information contained herein is based on data considered to be accurate. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer’s responsibility to ensure that its activities comply with Federal, State/Provincial, and local laws. While the information is believed to be reliable, NO Warranty, expressed or implied, is given in regards to the accuracy of this data or the results to be obtained from the use thereof. Since the use of this information and the conditions and use of this product are controlled by the user, it is the user’s obligation to determine the conditions of safe use of the product. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

**SARA 311/312 (RTK):** This product has been reviewed according to the EPA “Hazard Categories” promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions to meet the following categories:

**IMMEDIATE (ACUTE) HEALTH HAZARD**

**SARA 313:** This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>WT%</th>
<th>CAS Number</th>
</tr>
</thead>
</table>
| This product contains no chemical subject for the SARA 313 supplier notification requirements.

**CERCLA:** CERCLA section 103(a) specifically requires the person in charge of a vessel or facility to report immediately to the National Response Center (NRC) a release of a hazardous substance whose amount equals or exceeds the assigned RQ. The following hazardous substances are contained in this product:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>RQ</th>
<th>CAS Number</th>
</tr>
</thead>
</table>
| NO CERCLA chemicals exist in this product above reportable concentrations.

Water Armor® is a registered trademark of T. Clear Corporation
**MATERIAL SAFETY DATA SHEET**

*TSCA Section 12(b) Export Notification:* This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b), if exported from the United States:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl Chloride</td>
<td>100-44-7</td>
</tr>
</tbody>
</table>

*California Proposition 65:* The chemical(s) below, and contained in this product, are known to the state of California to cause cancer, birth defects or other reproductive harm. Unless otherwise specified in Section 2 of this MSDS, these chemicals are present at <0.1%:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, Crystalline Quartz</td>
<td>14808-60-7</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
</tr>
<tr>
<td>Benzyl Chloride</td>
<td>100-44-7</td>
</tr>
<tr>
<td>Ethylene Oxide</td>
<td>75-21-8</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
</tr>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
</tr>
<tr>
<td>Inorganic Lead</td>
<td>7439-92-1</td>
</tr>
<tr>
<td>Arsenic</td>
<td>7440-38-2</td>
</tr>
<tr>
<td>4-Vinylcyclohexene</td>
<td>100-40-3</td>
</tr>
<tr>
<td>1,3-Butadiene</td>
<td>106-99-0</td>
</tr>
<tr>
<td>Ethyl Benzene</td>
<td>100-41-4</td>
</tr>
</tbody>
</table>

16. **Other Information:**

*HMIS Ratings:*

- Health ............................................ 1*
- Flammability .................................... 1
- Physical Hazard ................................. 0

*WHMIS Class:* D2B