SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: EnergyGuard™ Fiberboard Roof Insulation, EnergyGuard™ Perlite Cant Strip, EnergyGuard™ Perlite Recover Board, EnergyGuard™ Perlite Roofing Insulation, EnergyGuard™ Perlite Tapered Roof Insulation, EnergyGuard™ Perlite Tapered Edge Strip

TRADE NAME: N/A

CHEMICAL NAME / SYNONYM: Insulation/ Mixture

CHEMICAL FAMILY: Mixture

MANUFACTURER: GAF

ADDRESS: 1 Campus Drive, Parsippany, NJ 07054

24-HOUR EMERGENCY PHONE (CHEMTREC): 800 – 424 – 9300

INFORMATION ONLY: 800 – 766 – 3411

PREPARED BY: Corporate EHS

APPROVED BY: Corporate EHS

SECTION 2: HAZARDS IDENTIFICATION

As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200, the products listed above are considered articles and do not require an SDS. In addition, articles are not included in the scope of the Globally Harmonization System (GHS). As such, the GHS labeling elements are not included on this SDS. All components listed for this product are bound within the product. When handled as intended and under normal conditions of use, there is no evidence that any of the ingredients are released in amounts that pose a significant health risk. Although these products are not subject to the OSHA Standard or GHS labeling elements, GAF would like to disclose as much health and safety information as possible to ensure that this product is handled and used properly. This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and be made available for employees and other users of this product. In addition, the recommendations for handling and use of these products should be included in worker training programs.

ADDITIONAL HAZARD IDENTIFICATION INFORMATION:

PRIMARY ROUTE OF EXPOSURE: The primary hazards from this product are due to dust particles released during physical handling or cutting of the material. Breathing dust from this product may cause a scratchy throat,
congestion, and slight coughing. Getting dust on the skin, or in the
eyes may cause itching, rash, or redness. The asphalt contained in
the product has been solidified and will not present a fume hazard.

SIGN & SYMPTOMS OF EXPOSURE

EYES: Temporary irritation (itching) or redness may occur.

SKIN: Temporary irritation (itching) or redness may occur.

INGESTION: Product is not intended to be ingested or eaten under normal
conditions of use. If ingested, it may cause temporary irritation to
the gastrointestinal (GI) tract, and should be treated
symptomatically.

INHALATION: Irritation of the upper respiratory tract (scratchy throat), coughing,
and congestion may occur in extreme.

ACUTE HEALTH HAZARDS: As with any dust, pre-existing upper respiratory, eye and lung
diseases or conditions due to the large size of the particles,
minimal exposure to airborne dust is expected.

CHRONIC HEALTH HAZARDS: Chronic affects are associated with prolonged exposure to dust

CARCINOGENICITY: The Occupational Safety and Health Administration (OSHA),
National Toxicology Program (NTP), International Agency for
Research on Cancer (IARC), and American Conference of
Governmental Industrial Hygienists (ACGIH) have not classified
this product in its entirety as a carcinogen.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>% (BY WT)</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perlite, expanded</td>
<td>93763-70-3</td>
<td>35 – 75</td>
<td>15 mg/m³ (total dust); 5mg/m³ (respirable fraction)</td>
<td>NE</td>
<td>REL: 10 mg/m³ (total dust); 5mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Cellulose Fiber</td>
<td>65996-61-4</td>
<td>20 – 50</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Asphalt, oxidized</td>
<td>64742-93-4</td>
<td>3 – 20</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Starch</td>
<td>9005-25-8</td>
<td>1 – 11</td>
<td>15 mg/m³ (total dust); 5 mg/m³ (respirable fraction)</td>
<td>10 mg/m³</td>
<td>REL: 10 mg/m³ (total dust); 5 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Polymeric latex</td>
<td>-</td>
<td>0 – 10</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Sodium silicate</td>
<td>1344-09-8</td>
<td>0 – 1.0</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>
SECTION 4: FIRST AID MEASURES

FIRST AID PROCEDURES

EYES: Remove to fresh air. Drink water to clear throat, and blow nose to remove dust.

SKIN: Wash gently with soap and warm water to remove dust and fibers. Wash hands before eating or using the restroom.

INHALATION: Do not rub or scratch your eyes. Dust particles may cause the eye to be scratched. Flush eyes with large amounts of water for 5-15 minutes. If irritation persists, contact a medical professional.

INGESTION: Product is not intended to be ingested or eaten. If this product is ingested, irritation of the gastrointestinal (GI) tract may occur, and should be treated symptomatically. Rinse mouth with water to remove material or dust, and drink plenty of water to help reduce the irritation. No chronic effects are expected following ingestion.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

SECTION 5: FIRE FIGHTING PROCEDURES

SUITABLE EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water spray or foam

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide. Hazardous emissions may occur during processing at elevated temperatures.

RECOMMENDED FIRE FIGHTING PROCEDURES: Small Fire: Use dry chemical, carbon dioxide, water spray or foam. Large Fire: Use water spray, fog or foam. DO NOT use water jet. All fires produce toxic gases. Fire fighter should use self-contained breathing apparatus and full protective gear.

UNUSUAL FIRE & EXPLOSION HAZARDS: None

SECTION 6: ACCIDENTAL RELEASE MEASURES
ACCIDENTAL RELEASE MEASURES: Pick up large pieces. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation. These procedures will help to minimize potential exposures.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Use protective equipment. Warehouse storage should be in accordance with package directions, if any. Material should be kept dry, and protected from the elements.

OTHER PRECAUTIONS: None

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS / VENTILATION: Local exhaust ventilation should be provided at areas of cutting to remove airborne dust and fibers. General dilution ventilation should be provided as necessary to keep airborne dust and fibers below the applicable exposure limits and guidelines. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.

RESPIRATORY PROTECTION: A respirator should be used if ventilation is unavailable, or is inadequate for keeping dust and fiber levels below the applicable exposure limits.

EYE PROTECTION: Safety glasses with side shields are recommended to keep dust out of the eyes.

SKIN PROTECTION: Leather or cotton gloves are recommended.

OTHER PROTECTIVE EQUIPMENT: Protective equipment should be used as necessary to prevent irritation of the throat, eyes, and skin, and to keep exposures.

WORK HYGIENIC PRACTICES: Wash hands with soap and water after application.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPEARANCE &amp; ODOR:</td>
<td>Brown to light brown with an asphalt odor.</td>
</tr>
<tr>
<td>FLASH POINT:</td>
<td>No Data</td>
</tr>
<tr>
<td>LOWER EXPLOSIVE LIMIT:</td>
<td>No Data</td>
</tr>
<tr>
<td>METHOD USED:</td>
<td>No Data</td>
</tr>
<tr>
<td>UPPER EXPLOSIVE LIMIT:</td>
<td>No Data</td>
</tr>
<tr>
<td>EVAPORATION RATE:</td>
<td>No Data</td>
</tr>
<tr>
<td>BOILING POINT:</td>
<td>400 °F</td>
</tr>
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</table>
**SECTION 10: STABILITY AND REACTIVITY**

**THERMAL STABILITY:**

<table>
<thead>
<tr>
<th>STABLE</th>
<th>UNSTABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**CONDITIONS TO AVOID (STABILITY):** None known.

**INCOMPATIBILITY (MATERIAL TO AVOID):** None known.

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Carbon monoxide, carbon dioxide. Hazardous emissions may occur at elevated temperatures.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**TOXICOLOGICAL INFORMATION:** The dusts and fumes from this product are irritants and may cause transitory irritation to exposed areas such as eyes, skin, and upper respiratory passages.

**SECTION 12: ECOLOGICAL INFORMATION**

**ECOLOGICAL INFORMATION:** No information available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHOD:** This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal.

**RCRA HAZARD CLASS:** None
SECTION 14: TRANSPORTATION INFORMATION

U.S. DOT TRANSPORTATION

PROPER SHIPPING NAME: This product is not classified as a hazardous material for transport.

HAZARD CLASS: N/A

ID NUMBER: N/A

PACKING GROUP: N/A

LABEL STATEMENT: N/A

OTHER: N/A

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA: This product and its components are listed on the TSCA 8(b) inventory.

CERCLA: None

SARA

311/312 HAZARD CATEGORIES: Acute Health Hazard

313 REPORTABLE INGREDIENTS: None

CALIFORNIA PROPOSITION 65: This product contains a chemical known to the state of California to cause cancer and birth defects, or other reproductive harm

Other state regulations may apply. Check individual state requirements. The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perlite, expanded</td>
<td>93763-70-3</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Cellulose Fiber</td>
<td>65996-61-4</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Asphalt, oxidized</td>
<td>64742-93-4</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Starch</td>
<td>9005-25-8</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Substance</td>
<td>CAS Number</td>
<td>Fire</td>
<td>Explosion</td>
<td>Reactivity</td>
<td>Reactivity</td>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
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<td>Polymeric latex</td>
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<td>No</td>
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<td>N/A</td>
<td>No</td>
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<td>No</td>
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<td>Sodium silicate</td>
<td>1344-09-8</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

SECTION 16: OTHER INFORMATION

ADDITIONAL COMMENTS: None

DATE OF PREVIOUS SDS: October 2013

CHANGES SINCE PREVIOUS SDS: Headquarters Address Change

This information relates to the specific material designated and may not be valid for such material used on combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation, warranty or guarantee, expressed or implied, is made as to its accuracy, reliability, or completeness. It is the user’s responsibility to satisfy himself as to the suitability and completeness of such information for his particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license of valid patents.