SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: TOPCOAT® PVDF Coating

TRADE NAME: N/A

CHEMICAL NAME / SYNONYM: N/A

CHEMICAL FAMILY: N/A

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: HAZARD IDENTIFICATION

NFPA and HMIS RATINGS:

<table>
<thead>
<tr>
<th>NFPA Hazard Rating</th>
<th>HMIS Hazard Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health 2</td>
<td>Health 2</td>
</tr>
<tr>
<td>Flammable 0</td>
<td>Flammable 0</td>
</tr>
<tr>
<td>Reactive 0</td>
<td>Reactive 0</td>
</tr>
<tr>
<td>Special Hazards</td>
<td>Personal Protection X</td>
</tr>
</tbody>
</table>

GHS LABEL ELEMENTS:

GHS CLASSIFICATION: Eye Irritant - Category 2A
Skin Irritant - Category 2
Target Organ (SE) - Category 2
Target Organ (RE) - Category 2
Acute Toxicity - Category 4
Carcinogen - Category 2
Hazardous to the Aquatic Environment (chronic) - Category 4
ADDITIONAL HAZARD IDENTIFICATION INFORMATION:

PRIMARY ROUTE OF EXPOSURE: Inhalation, Skin Contact, Eye Contact

SIGNS & SYMPTOMS OF EXPOSURE

EYES: Exposure to vapors can cause irritation to the eyes.

SKIN: Prolonged exposure can cause irritation to the skin.

INGESTION: Not expected to be ingested.

INHALATION: May cause nose throat and lung irritation. Symptoms of excessive exposure may be anesthetic effects; dizziness and drowsiness may be observed.

ACUTE HEALTH HAZARDS: Contains high molecular weight polymers. Decomposition gives toxic and corrosive products. Inhalation of fumes may cause flu-like symptoms; headache, drowsiness, nausea, weakness.

CHRONIC HEALTH HAZARDS: None known

CARCINOGENICITY: IARC has determined that occupational exposure to Titanium Dioxide is possibly carcinogenic to humans (Group 2B). IARC concluded lung tumors were observed in rats following high dose exposure by inhalation and in female rats exposed by intra-tracheal instillation. Other studies have shown no tumors in rats following inhalation exposure and no tumors in mice or rats following oral exposure.
### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### OCCUPATIONAL EXPOSURE LIMITS

<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>Diproylene glycol monomethyl ether</td>
<td>34590-94-8</td>
<td>0-5</td>
<td>600 mg/m³</td>
<td>100 ppm SKIN</td>
<td>100 ppm –TWA 150 ppm –STEL SKIN. DES – can be absorbed through skin. NE</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>10-20</td>
<td>15 mg/m³ total</td>
<td>10mg/m³ total</td>
<td>NE</td>
</tr>
<tr>
<td>Water</td>
<td>-</td>
<td>35-45</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Non-Hazardous Ingredients</td>
<td>-</td>
<td>35-45</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

NE = Not Established

### SECTION 4: FIRST AID MEASURES

#### FIRST AID PROCEDURES

- **EYES:** Flush eyes with water for 15 minutes. If irritation persists, call a physician.
- **SKIN:** Wash area thoroughly with soap and water. If irritation persists, call a physician.
- **INHALATION:** Remove person to fresh air. If signs/symptoms continue, get medical attention.
- **INGESTION:** If swallowed, seek medical attention.

#### NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

Hazardous decomposition products including toxic and corrosive Hydrogen fluoride (HF) may be liberated during processing at high temperatures. If thermal decomposition of this product occurs additional first aid measures are required and treatment for HF exposure.

### SECTION 5: FIRE FIGHTING PROCEDURES

#### SUITABLE EXTINGUISHING MEDIA:

Water spray, carbon dioxide, dry chemical or foam.
HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, carbon monoxide and hydrogen fluoride.

RECOMMENDED FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus recommended.

UNUSUAL FIRE & EXPLOSION HAZARDS: When Burned, the following hazardous product of combustion can occur: Carbon oxides and Hydrogen fluoride.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Contain spill to prevent spreading. Use absorbent material to dry up the compound. Provide adequate ventilation in closed areas.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Store in a well ventilated area.

OTHER PRECAUTIONS: None

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS / VENTILATION: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure limits.

RESPIRATORY PROTECTION: Use NIOSH-approved respirator.

EYE PROTECTION: Safety goggles or safety glasses with side shields.

SKIN PROTECTION: Wear appropriate impermeable gloves and protective clothing as necessary to prevent skin contact.

OTHER PROTECTIVE EQUIPMENT: N/A

WORK HYGIENIC PRACTICES: Wash exposed skin prior to eating, drinking, or smoking and at the end of each shift.

EXPOSURE GUIDELINES: N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR: Heavy, white liquid with ammonia odor.
FLASH POINT: 200 F  LOWER EXPLOSIVE LIMIT: No data

METHOD USED: TCC  UPPER EXPLOSIVE LIMIT: No data

EVAPORATION RATE: 1  BOILING POINT: No data

pH (undiluted product): 8.2  MELTING POINT: No data

SOLUBILITY IN WATER: Dilutable in water  SPECIFIC GRAVITY: 1.39 g/ml

VAPOR DENSITY: No data  PERCENT VOLATILE: No data

VAPOR PRESSURE: No data  MOLECULAR WEIGHT: No data

VOC WITH WATER (LBS/GAL): No data  WITHOUT WATER (LBS/GAL): No data

SECTION 10: STABILITY AND REACTIVITY

THERMAL STABILITY:  STABLE ☒  UNSTABLE ☐

CONDITIONS TO AVOID (STABILITY): None known.

INCOMPATIBILITY (MATERIAL TO AVOID): Strong oxidizing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon monoxide, carbon dioxide and hydrogen fluoride.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: No information available. See section 3.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No information available.
SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose in accordance with all federal, state and local waste disposal regulations.
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: The components are listed on the TSCA 8(b) inventory.
CERCLA: None
SARA

311/312 HAZARD CATEGORIES: Acute Health Hazard, Chronic 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. Cancer: Titanium Dioxide

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>Dipropylene glycol monomethyl ether</td>
<td>34590-94-8</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
SECTION 16: OTHER INFORMATION

ADDITIONAL COMMENTS: None

DATE OF PREVIOUS SDS: May 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.