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**SECTION 1: PRODUCT AND COMPANY INFORMATION**

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**PRODUCT NAME:** Ruberoid® HW Plus Granule  
Ruberoid® HW Plus Granule FR  
Ruberoid® HW Plus Granule FR EnergyCap™  
Ruberoid® MOP Plus Granule FR™  
Ruberoid® MOP Plus Granule  
Ruberoid® MOP Plus Granule FR EnergyCap™  
Intec Flex PRF

**TRADE NAME:** Roll Roofing

**MANUFACTURER:** GAF

**ADDRESS:** 1 Campus Drive, Parispany, NJ 07054

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

**INFORMATION ONLY:** 800 – 766 – 3411

**PREPARED BY:** Corporate EHS

**APPROVED BY:** Corporate EHS

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**SECTION 2: HAZARDS IDENTIFICATION**

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As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200, the products listed below 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.

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**ADDITIONAL HAZARD IDENTIFICATION INFORMATION:**

**PRIMARY ROUTE OF EXPOSURE:** Occasional nuisance dust, Inhalation

**SIGNS & SYMPTOMS OF EXPOSURE**

**EYES:** May cause irritation to the eyes.

**SKIN:** May cause irritation to the skin.

**INGESTION:** Not applicable.

**INHALATION:** May cause irritation to the respiratory tract.

**ACUTE HEALTH HAZARDS:** NIOSH has found that studies of workers exposed to asphalt fumes have repeatedly found irritation of the serous membranes of the conjunctivae (eye irritation) and the mucous membranes of the upper respiratory tract (nasal and throat irritation).

**CHRONIC HEALTH HAZARDS:** Studies in humans have found that exposure to respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. Silicosis is a serious and irreversible disease; it may be progressive even after exposure has ceased; it can lead to disability and death. Human studies also have found that silicosis is a risk factor for tuberculosis, and that occupational exposure to respirable crystalline silica is associated with chronic obstructive pulmonary disease, including bronchitis and emphysema. Some studies show excess numbers of cases of scleroderma, connective tissue disorders, lupus, rheumatoid arthritis, chronic kidney diseases and end-stage kidney disease in workers exposed to respirable crystalline silica.

**CARCINOGENICITY:** Crystalline Silica: The International Agency for Research on Cancer (IARC) Group 1 - Known Human Carcinogen (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources).

IARC has determined that occupational exposure to oxidized asphalt and its emissions is probably carcinogenic to humans (Group 2A).

IARC has determined that occupational exposure to Titanium Dioxide is possibly carcinogenic to humans (Group 2B).

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% (BY WT)	OCCUPATIONAL EXPOSURE LIMITS		
			OSHA	ACGIH	OTHER
Oxidized Asphalt	64742-93-4	40-45	NE	0.5 mg/m <sup>3</sup> (inhalable fraction, as benzene-soluble aerosol)	5 mg/m <sup>3</sup> – ceiling (15 min. fumes)
Granules	-	~30	NE	NE	NE
Limestone	1317-65-3	~15	5 mg/m <sup>3</sup> resp. 15 mg/m <sup>3</sup> total	3 mg/m <sup>3</sup> resp. 10 mg/m <sup>3</sup> total	REL: 5 mg/m <sup>3</sup> resp. 15 mg/m <sup>3</sup> total
Titanium Dioxide	13463-67-7	0 – 4	15 mg/m <sup>3</sup> total	10 mg/m <sup>3</sup> total	

Silica, Crystalline Quartz	14808-60-7	0.1-1	50 ug/m3 / (% SiO <sub>2</sub> + 2) – resp.	0.025 mg/m3	REL: 0.05 mg/m3 – resp.
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NE = Not Established

#### SECTION 4: FIRST AID MEASURES

##### FIRST AID PROCEDURES

- EYES:** Hold eyelids open and wash with gentle stream of water for at least 15 minutes preferably at eyewash fountain.
- SKIN:** Wash exposed skin with soap and water. If irritation develops or persists, seek medical attention.
- INHALATION:** Move individual to area with fresh air and provide oxygen if breathing is difficult. Consult medical personnel.
- INGESTION:** Consult medical personnel.
- NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:** Dust from the product may cause mechanical irritation of the eyes, skin, and upper respiratory tract. Treat symptomatically.

#### SECTION 5: FIRE FIGHTING PROCEDURES

- SUITABLE EXTINGUISHING MEDIA:** Water spray, Alcohol foam, Carbon Dioxide, or Dry chemical.
- HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide and carbon monoxide.
- RECOMMENDED FIRE FIGHTING PROCEDURES:** NIOSH-approved self contained breathing apparatus is recommended for smoke protection.
- UNUSUAL FIRE & EXPLOSION HAZARDS:** None.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

- ACCIDENTAL RELEASE MEASURES:** Pick up pieces and dispose off properly. Vacuum dust. Use a dust suppressant if sweeping is necessary.

#### SECTION 7: HANDLING AND STORAGE

- HANDLING AND STORAGE:** Hot asphalt is used to apply many of these products; appropriate

personal protective equipment should be worn handling this material.

**OTHER PRECAUTIONS:**

When heated, small amounts of hydrogen sulfide may be given off. Hydrogen sulfide is a flammable, toxic gas. Avoid breathing fumes.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS / VENTILATION:**

Not Applicable.

**RESPIRATORY PROTECTION:**

Not applicable under normal use conditions. In circumstances where dust or fumes are generated and may exceed recognized allowable exposure levels, appropriate NIOSH approved respiratory protection is recommended.

**EYE PROTECTION:**

Safety glasses with side shields

**SKIN PROTECTION:**

Cotton or leather gloves are recommended when handling.

**OTHER PROTECTIVE EQUIPMENT:**

Work shoes.

**WORK HYGIENIC PRACTICES:**

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

**EXPOSURE GUIDELINES:**

These products should be handled using methods and techniques that minimize or eliminate dust or fume generation.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE &amp; ODOR:</b>	Thin black sheet in roll form, may be surfaced with granules, talc, sand or film. Slight asphalt odor.		
<b>FLASH POINT:</b>	>500° F	<b>LOWER EXPLOSIVE LIMIT:</b>	No Data
<b>METHOD USED:</b>	COC	<b>UPPER EXPLOSIVE LIMIT:</b>	No Data
<b>EVAPORATION RATE:</b>	No Data	<b>BOILING POINT:</b>	No Data
<b>pH (undiluted product):</b>	No Data	<b>MELTING POINT:</b>	No Data
<b>SOLUBILITY IN WATER:</b>	No Data	<b>SPECIFIC GRAVITY:</b>	No Data
<b>VAPOR DENSITY:</b>	No Data	<b>PERCENT VOLATILE:</b>	No Data
<b>VAPOR PRESSURE:</b>	No Data	<b>MOLECULAR WEIGHT:</b>	No Data
<b>VOC WITH WATER (LBS/GAL):</b>	No Data	<b>WITHOUT WATER (LBS/GAL):</b>	No Data

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**SECTION 10: STABILITY AND REACTIVITY**

THERMAL STABILITY:                                          STABLE                                           UNSTABLE

CONDITIONS TO AVOID (STABILITY):                          None known.

INCOMPATIBILITY (MATERIAL TO AVOID):                          None known.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:                          None known.

HAZARDOUS POLYMERIZATION:                                  Will Not Occur

**SECTION 11: TOXICOLOGICAL INFORMATION**

**TOXICOLOGICAL INFORMATION:**

Crystalline silica is considered a hazard by inhalation. The International Agency for Research on Cancer (IARC) has classified crystalline silica as a Group 1 substance, carcinogenic to humans. This classification is based on the findings of laboratory animal studies (inhalation and implantation) and epidemiology studies that were considered sufficient for carcinogenicity. Excessive exposure to crystalline silica can cause silicosis, a non-cancerous lung disease.

IARC has determined that occupational exposure to oxidized asphalt and its emissions is probably carcinogenic to humans (Group 2A).

IARC has determined that occupational exposure to Titanium Dioxide is possibly carcinogenic to humans (Group 2B).

**SECTION 12: ECOLOGICAL INFORMATION**

ECOLOGICAL INFORMATION:                                  No information available

**SECTION 13: DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD:                                  Dispose of waste material according to Local, State, and Federal, environmental regulations.

**SECTION 14: TRANSPORTATION INFORMATION**

**DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**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:** None**313 REPORTABLE INGREDIENTS:** None**CALIFORNIA PROPOSITION 65:** This product contains silica and titanium dioxide, chemicals known to the State of California to cause cancer.

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

Chemical Name	CAS #	CA	MA	MN	NJ	PA	RI
Oxidized Asphalt	64742-93-4	No	No	No	No	No	No
Crystalline Silica	14808-60-7	Yes	Yes	Yes	Yes	Yes	Yes
Titanium Dioxide	13463-67-7	No	Yes	Yes	Yes	Yes	Yes
Limestone	1317-65-3	No	Yes	Yes	No	Yes	Yes

**SECTION 16: OTHER INFORMATION****ADDITIONAL COMMENTS:** None**DATE OF PREVIOUS SDS:** October 2016**CHANGES SINCE PREVIOUS SDS:** Product Name 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.