



SECTION 1: PRODUCT AND COMPANY INFORMATION

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|--|---|
| PRODUCT NAME: | Ruberoid® HW Granule FR, Ruberoid® HW Granule Ruberoid® MOP Granule FR Ruberoid® MOP Granule Liberty™ SBS Self-Adhering Cap Sheet |
| TRADE NAME: | Roll Roofing |
| CHEMICAL NAME / SYNONYM: | N/A |
| CHEMICAL FAMILY: | N/A |
| 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 |

SECTION 2: HAZARDS IDENTIFICATION

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.

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: This product is not intended to be ingested. If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

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: IARC has determined that occupational exposure to oxidized asphalt and its emissions is probably carcinogenic to humans (Group 2A). IARC concluded that available data from cancer studies in humans points to an association between exposures to oxidized asphalts during roofing and lung cancer and tumors in the upper aero-digestive tract. In addition, IARC found sufficient evidence of carcinogenicity in experimental animals for extracts and fume condensates of oxidized asphalts.

NIOSH has concluded that the collective data from human, animal, genotoxicity and exposure studies provide sufficient evidence that roofing asphalt fumes are a potential occupational carcinogen.

Occupational exposure to respirable crystalline silica is classified as a known carcinogen in humans. IARC has determined that respirable crystalline silica is carcinogenic to humans (Group 1), based on findings of sufficient evidence of carcinogenicity in both humans and experimental animals. NTP has classified respirable crystalline silica as a known human carcinogen based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between occupational exposure to respirable crystalline silica and increased lung cancer rates. NIOSH has determined that respirable crystalline silica is a potential occupational carcinogen.

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

| CHEMICAL NAME | CAS # | % (BY WT) | OCCUPATIONAL EXPOSURE LIMITS | | |
|----------------------------|------------|-----------|---|---|--|
| | | | OSHA | ACGIH | OTHER |
| Oxidized Asphalt | 64742-93-4 | 40-45 | NE | 0.5 mg/m ³ (inhalable fraction, as benzene-soluble aerosol) | 5 mg/m ³ – ceiling (15 min. fumes) |
| Granules | - | ~30 | NE | NE | NE |
| Limestone | 1317-65-3 | ~15 | 5 mg/m ³ resp. 15 mg/m ³ total | 3 mg/m ³ resp. 10 mg/m ³ total | REL: 5 mg/m ³ resp. 15 mg/m ³ total |
| Titanium Dioxide | 13463-67-7 | 0 – 4 | 15 mg/m ³ total | 10 mg/m ³ total | |
| Silica, Crystalline Quartz | 14808-60-7 | 0.1-1 | 10 mg/m ³ / (% SiO ₂ + 2) – resp. | 0.025 mg/m ³ | REL: 0.05 mg/m ³ – resp. |

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: If contacted by hot asphalt. Cool with ice or water. Do not attempt to remove asphalt immediately. Consult medical personnel.

INHALATION: Remove to fresh uncontaminated air.

INGESTION: Not expected to be ingested.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Water-Jel has been shown to be an effective agent in softening and removing asphalt.

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:

N/A

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Pick up large pieces. Avoid creating dusts during clean up.

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:

Avoid breathing the fumes from hot asphalt.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS / VENTILATION:

N/A

RESPIRATORY PROTECTION:

N/A 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:

None

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

| | | | |
|----------------------------------|--|---------------------------------|---------|
| APPEARANCE & ODOR: | Thin black sheet in roll form, may be surfaced with granules, talc, sand or film. Slight asphalt odor. | | |
| FLASH POINT: | >500° F | LOWER EXPLOSIVE LIMIT: | No Data |
| METHOD USED: | COC | UPPER EXPLOSIVE LIMIT: | No Data |
| EVAPORATION RATE: | No Data | BOILING POINT: | No Data |
| pH (undiluted product): | No Data | MELTING POINT: | No Data |
| SOLUBILITY IN WATER: | No Data | SPECIFIC GRAVITY: | No Data |
| 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 X** **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: None available for the product. See section 3.

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: N/A
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: None

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:

| 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: December 2014

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.