



# GARLAND INDUSTRIES

## Material Safety Data Sheet (MSDS)

**MSDS Status:** Current  
**Product Name:** MILLENNIUM, MILLENNIUM MINERAL,  
MILLENNIUM FR MINERAL, MILLENNIUM BASE  
**Product Code:** 4601, 4602, 4603, 4620

**Product Status:** Active  
**Revision Date:** 2005-07-15  
**Version:** 2005.1

### SECTION I - CHEMICAL PRODUCT/COMPANY IDENTIFICATION

**Chemical Name:** Mixture

**CAS No.:** Not Applicable

**Product Description:** Rolled roofing

**Hazard Classification:** **Health-** 2      **Flammability-** 1      **Reactivity-** 0

**Manufacturer/Supplier:** THE GARLAND COMPANY, INC.      GARLAND CANADA, INC.  
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24 HR EMERGENCY ASSISTANCE: 1-800-762-8225

### SECTION II - HAZARDOUS INGREDIENTS/COMPOSITION

Ingredient:	CAS Number:	Weight %
Coal Tar Pitch	65996-93-2	55-65
Roofing Granules (metamorphous silico-alumina rock)	N/A	0-25
Mineral Fillers*	N/A	8-20
Styrene-Butadiene-Styrene Block Copolymer	9003-55-8	8-15
Fire Retardant (FR only)	68333-79-9	5-15
Petroleum oil	64742-65-0	7-10
Petroleum oil	64742-52-5	3-5
Fiberglass Mat (or Polyester)	N/A	1-4
Sand	N/A	1-4

\*Includes: metamorphous silico-alumina slate shist, calcium borate, limestone

Trace impurities and additional material names not listed above may appear in the Regulatory Information section towards the end of the MSDS. These may be listed for local Right-To-Know compliance and other reasons.

### SECTION III - HAZARDS IDENTIFICATION

#### Emergency Overview:

Vapors generated during installation may cause moderate to severe irritation of eyes, nose, throat and respiratory tract. Liquid can cause burning and itching with reddening of the skin, which is accentuated by sunlight. Burning may emit hazardous fumes, which can form flammable or explosive mixtures.

**Potential Health Hazards:**

- SKIN:** Contact with skin can result in irritation which when not washed off or when accentuated by sunlight, can result in minor burns. Contact with heated material can cause severe thermal burns.
- EYES:** Overexposure to fumes, vapors or dust can result in irritation and burning. eye contact with product will result in irritation, which in the absence of recommended first aid can result in effects ranging from minor burns to severe corneal injury. Contact with heated material can cause severe thermal burns.
- INHALATION:** Overexposure to fumes, vapors or dust may result in irritation to respiratory tract. Prolonged exposure in significant excess of permissible air concentrations can result in acute toxic effects, such as coughing, sneezing, headache, dizziness respiratory difficulty and convulsions.
- INGESTION:** Irritation of the gastrointestinal tract followed by nausea and vomiting, abdominal discomfort, or rapid pulse.
- OTHER:** Individuals with chronic respiratory disorders, a history of central nervous system (CNS) functional illness or preexisting skin disorders may be more susceptible to the effects of exposure when working with this material.
- DELAYED EFFECTS:** Prolonged and repeated skin exposure over many months to years, in the absence of recommended hygiene practices, may lead to changes in skin pigmentation and benign skin growths. These effects appear to be exacerbated by simultaneous exposures to ultraviolet light (sunlight). Long term exposure to coal tar pitch volatiles has been associated with the development of skin, bladder, scrotum, and lung cancer.

**SECTION IV - FIRST AID PROCEDURES**

- INHALATION:** Remove victim from exposure area immediately to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. Keep person warm and quiet.
- SKIN CONTACT:** For contact with **molten** product, do not remove contaminated clothing. Immediately flush skin with large amounts of cold water. If possible, submerge area in cold water. Pack with ice and seek immediate medical attention. For other contact, remove contaminated clothing/shoes and wash exposed area with non-abrasive soap and water. Do not use solvents on skin as they promote absorption of this material. If irritation persists, get medical attention. Do not re-use work clothing until they have been thoroughly cleaned.
- EYE CONTACT:** If eye contact occurs, flush eyes immediately with large amounts of water for 15 minutes, occasionally lifting eyelids and get medical attention.
- INGESTION:** Give 3-4 glasses of water, but DO NOT induce vomiting. Get IMMEDIATE medical attention.
- Advice to Physician:** Depending on amount ingested, observation and symptomatic treatment may be best. If gastric lavage is necessary, perform in accordance with procedures for ingestion of petroleum products.

## SECTION V - FIRE AND EXPLOSION HAZARD DATA

**FLASH POINT:** > 374<sup>0</sup>F  
**AUTOIGNITION TEMPERATURE:** Not Determined  
**LEL (LOWER EXPLOSION LIMIT):** Not Determined  
**UEL (UPPER EXPLOSION LIMIT):** Not Determined  
**EXTINGUISHING MEDIA:** Carbon dioxide, foam, dry chemicals, or water fog.

**SPECIAL FIRE FIGHTING PROCEDURES:** Self-contained (full face MSHA/NIOSH) breathing apparatus and full protective clothing should be worn when fumes and/or smoke are present.

Water or foam can be used to contain unconfined tar fires, however, water may cause frothing or Or splattering. Normal fire fighting procedures may be used. Use water or water spray to cool fire exposed containers and structures and to protect personnel.

**UNUSUAL FIRE AND EXPLOSION HAZARD:** Burning may emit hazardous fumes/vapors which may be in concentrations greater than PEL/TLVs. Coal tar pitch at elevated temperatures may generate vapors that can form flammable/explosive mixtures in the presence of air and a source of ignition. Liquid molten pitch at elevated temperatures will sustain combustion.

## SECTION VI - ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IF RELEASED OR SPILLED:** Material is not normally involved in a spill/release Scenario. Avoid breathing vapors and contact with the skin and eyes. Avoid sources of ignition. Ventilate the area if release occurs indoors. Use of water spray will aid in solidifying material and minimize vapor emissions. Contain runoff of fire control water. Do not allow runoff to enter into sewers, waterways or open bodies of water.

## SECTION VII - SAFE HANDLING AND STORAGE

**HANDLING AND STORAGE PRECAUTIONS:** Avoid prolonged and repeated contact with skin or breathing of vapors, dusts, or fumes. Ensure work area is well ventilated.

DO NOT LET AIR INTAKES DRAW ODOR INDOORS.  
KEEP OUT OF REACH OF CHILDREN.

## SECTION VIII - EXPOSURE CONTROL/PERSONAL PROTECTION

**VENTILATION:** Use in areas with adequate natural ventilation or provide sufficient local/general exhaust ventilation in pattern/volume to maintain concentrations below the PEL/TLV and to maintain areas below flammable or explosive level concentrations.

**GLOVES:** Use chemical resistant, if needed, to avoid prolonged or repeated skin contact.

**EYE PROTECTION:** Use safety glasses, goggles or face shield when eye contact may occur.

**RESPIRATOR:** If under normal conditions of use, irritation occurs, or if the TLV is exceeded, use a NIOSH/MSHA approved air purifying respirator with organic vapor cartridges or canisters and a dust/mist pre-filter. Not required for properly ventilated areas.

**SKIN PROTECTION:** For exposed skin, use protective barrier creams. Also protect skin from direct sunlight. For outdoor work use approved waterproof sunscreen with an SPF of 25 or greater. Re-apply every 90 minutes while in direct sun.

**CLOTHING:** Full long-sleeved clothing closed at the neck and non-porous gloves are recommended. To further reduce skin exposure, apply approved creams to form an un-penetrable barrier on the skin. A complete change of work clothing should be used each day. Launder separately from other household clothing.

**HYGIENIC PRACTICES:** Wash hands thoroughly before eating, drinking, smoking or using the restroom. A complete soap/water shower and/or steam bath should be taken at the end of every work day. Provide readily available eye wash and wash stations.

**EXPOSURE GUIDELINES:**

<u>Ingredient</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
Cola Tar Pitch Volatiles	0.2 mg/m <sup>3</sup>	0.2 mg/m <sup>3</sup>

**SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS**

**APPEARANCE:** Dull black rolled roofing with sand and/or colored rock surface  
**PHYSICAL STATE:** Solid  
**ODOR:** Aromatic odor  
**MELTING POINT:** Not Applicable  
**SOLUBILITY IN WATER:** Negligible  
**pH:** Not Applicable  
**DENSITY:** Greater than 8.4

**SECTION X - STABILITY AND REACTIVITY DATA**

**STABILITY:** Stable under normal conditions.  
**CONDITIONS TO AVOID:** Open flames and intense heat.  
**MATERIALS TO AVOID:** None known.

**HAZARDOUS DECOMPOSITION:** Material does not decompose under normal conditions of use. Upon heating or burning, the material decomposes, and may emit hazardous carbon monoxide and dioxide, oxides of nitrogen and sulfur, hydrocarbons.

**WILL POLYMERIZATION OCCUR:** No

**SECTION XI - TOXICOLOGICAL INFORMATION**

**IMMEDIATE (ACUTE) EFFECTS:** Acute exposure to coal tar pitch volatiles can be irritating to the skin, eyes and respiratory tract and can cause dermatitis and photosensitivity.

**DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:** Long term exposure to Coal Tar Pitch Volatiles (CTPV), above the recommended exposure limit, has been associated with the development of skin, kidney, lung, bladder and scrotum cancer.

**OTHER DATA:** IARC Group 1 - Sufficient evidence of carcinogenicity in humans. No scientific study supports an association between coal tar pitch exposure and human reproductive hazards. Available data characterizes coal tar pitch as a mutagen.

**SECTION XII - ECOLOGICAL INFORMATION**

Not Determined.

**SECTION XIII - DISPOSAL CONSIDERATIONS**

**RCRA**

Is the unused product a RCRA hazardous waste if discarded: No

Dispose of in accordance with local, federal, state, and municipal regulations.

## SECTION XIV - TRANSPORTATION INFORMATION

Material Not Regulated

## SECTION XV - REGULATORY INFORMATION

### Toxic Substances Control Act (TSCA)

TSCA INVENTORY STATUS: All components of product are listed on EPA's TSCA Inventory.

OTHER TSCA ISSUES: Substance of unknown or variable composition.

### SARA Title III/CERCLA

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<u>Ingredient</u>	<u>CAS#</u>	<u>SARA/CERCLA RQ (lb)</u>	<u>SARA EHS TPQ (lb)</u>
Acenaphthene	83-32-9	100	
Anthracene	120-12-7	5000	
Benzo(a)anthracene	56-55-3	10	
Benzo(c)acridine	225-51-4	100	
Benzo(b)fluoranthene	205-99-2	1	
Benzo(k)fluoranthene	207-08-9	5000	
Benzo(j)fluoranthene	205-82-3	---	
Benzo(g,h,i)perylene	191-24-2	5000	
Benzo(a)pyrene	50-32-8	1	
Benzo(e)pyrene	192-97-2	---	
Chrysene	218-01-9	100	
Dibenz(a,h)anthracene	53-70-3	1	
Dibenzofuran	132-64-9	100	
Fluoranthene	206-44-0	100	
Fluorene	86-73-7	5000	
Indeno(1,2,3-cd)pyrene	193-39-5	100	
2-Methylnaphthalene	91-57-6	---	
Naphthalene	91-20-3	100	
Phenanthrene	85-01-8	5000	
Pyrene	129-00-0	5000	1000/10,000*

\*see 40 CFR 355.30(2)(i)

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [800-424-8802] and your Local Emergency Planning Committee.

Section 313 Hazard Class: Immediate, Delayed, Fire

**SARA 313 Toxic Chemicals**

The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are Found in Section II.

<u>Ingredient</u>	<u>CAS#</u>	<u>Weight %</u>
Benzo(a)anthracene	56-55-3	0.5
Benzo(b)fluoranthene	205-99-2	0.3
Benzo(k)fluoranthene	207-08-9	0.5 (includes (k))
Benzo(k)fluoranthene	207-08-9	included above
Benzo(j)fluoranthene	205-82-3	0.1
Benzo(g,h,i)perylene	191-24-2	0.1
Chrysene	218-01-9	0.1
Indeno(1,2,3-cd)pyrene	193-39-5	0.1
Phenanthrene	85-01-8	1.2
Polycyclic Aromatic Compounds (20 compounds)	---	2.1

*\*Also included in "polycyclic aromatic compound" category*

**CA PROP 65:** This product contains chemicals known to the State of California to cause cancer, birth defects & other reproductive harm.

**WHMIS Classification (Canada):** Class D, Division 2, Subdivision A

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

**Foreign Inventory Status:** Listed on the EINECS Inventory - ID# 2660282 (coal tar pitch)  
Listed on Canadian Inventory Domestic Substance List (DSL) - coal tar pitch

**SECTION XVI - ADDITIONAL INFORMATION**

**CHANGES:** New MSDS

**Disclaimer**

The information contained in this Material Safety Data Sheet has been prepared in accordance with the OSHA Hazard communication Standard CFR 1910.1200. This information relates specifically to the product designated and may not be valid for the product when used in combination with any other materials or products or in a particular process. The information is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness, whether originating within the company or not. The user should review this information, satisfy itself as to its suitability and completeness, and pass on the information to its employees or customers in accordance with applicable federal, state or local hazard communications requirements. We do not accept responsibility for any loss or damage which may occur from the use of this information.

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**Date:** 07-15-2005

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