

MATERIAL SAFETY DATA SHEET

MSDS Number: T029000

Revision Date: September, 2000

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: Shingles

LABEL: TAMKO

USE & DESCRIPTION: Roofing Shingles

CHEMICAL FAMILY: Mixture

CONTACT INFORMATION:

TAMKO Roofing Products, Inc.
P.O. Box 1404
Joplin, MO 64802-1404

EMERGENCY TELEPHONE NUMBERS:

General Information: 1-417-624-6644 (8 a.m. - 5 p.m. CST)
Chemtrec: 1-800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS No. | % by Wt | Exposure Limits | | | | Unit |
|------------------------------------|----------------|---------|-------------------------------|------|-------------------------------|------|-------------------|
| | | | OSHA* | | ACGIH* | | |
| | | | TWA | STEL | TWA | STEL | |
| Petroleum asphalt | 8052-42-4 | <30 | 5 fume | NE | .5 fume | NE | mg/M ³ |
| Limestone | 1317-65-3 | <40 | 15 total dust 5 resp. dust | NE | 10 total dust 3 resp. dust | NE | mg/M ³ |
| Mineral Granules | NE | <40 | NE | NE | NE | NE | |
| MAT | | <8 | | | | | |
| Continuous Filament Fiber Glass | 65997-17-3 | | 15 total dust 5 resp. dust | NE | NE | NE | mg/M ³ |
| Polyester | NE | | NE | NE | | | |
| Felt | NE | | NE | NE | 1 fiber/cc | NE | |
| Sand quartz | 14808-60 -7 | <10 | 0.1 | NE | 0.05 | NE | mg/M ³ |
| Talc | 4807-96- 6 | <10 | 2 | NE | 2 | NE | mg/M ³ |

NE = Not established

* NOTE: Due to the form of the product, hazardous exposures are not expected to occur. Exposure limits are provided for information purposes only.

HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Under normal conditions of use, the product not expected to create any emergency hazards.

Inhalation of product dust may cause temporary upper respiratory irritation - remove affected individuals to fresh air.

Skin irritation may be treated by washing area with soap and water.

Eye irritation may be treated by flushing eyes with large amounts of water.

| | |
|---|---|
| HMIS Rating: Health - 1 Flammability - 1 Reactivity - 0 | NFPA Rating: Health - 1 Flammability - 1 Reactivity - 0 |
|---|---|

Potential Health Effects

EYE CONTACT

If particles enter eye, may cause irritation resulting in tearing, stinging, redness or swelling.

SKIN CONTACT

Primary route of exposure is skin contact. Repeated contact may cause skin irritation due to roughness of product. Redness, drying and cracking of the skin (dermatitis) may occur following prolonged and repeated contact.

INGESTION

In general, asphalt products have low toxicity when swallowed. However, this product may cause irritation of the digestive tract followed by vomiting. If vomiting occurs, small amounts of material can be aspirated into the lung and cause inflammation or damage.

INHALATION

Irritation of the upper respiratory tract, coughing and congestion may result from extreme exposures.

CHRONIC EFFECTS/CARCINOGENICITY/SPECIAL TOXIC EFFECTS

This roofing material that is the subject of this MSDS has not specifically been tested. Thus, the potential hazards must be evaluated based on the characteristics of the individual ingredients

This product contains petroleum asphalt. Petroleum asphalt is not listed as a carcinogen by OSHA or NTP. The International Agency for Research on Cancer (IARC) has determined there is inadequate evidence that asphalt alone is carcinogenic to humans, and that there is inadequate evidence for the carcinogenicity of undiluted air-refined asphalts in experimental animals.

Although there are no studies to indicate that asphalt causes cancer in humans, this product may contain small amounts of polyaromatic hydrocarbons which are recognized carcinogens in humans and experimental animals. Brief or intermittent skin contact with this product is not expected to result in harmful effects. However, it is important to practice good personal hygiene and to follow all precautionary measures outlined in this MSDS.

This product may contain small amounts of respirable crystalline silica. IARC and NTP have determined that there is sufficient evidence for the carcinogenicity of respirable crystalline silica in experimental animals and limited evidence for its carcinogenicity in humans.

The presence of crystalline silica in this product is not expected to present an inhalation hazard. Prolonged and repeated exposure to respirable silica-containing dust may have serious lung effects, including silicosis, bronchitis, and lung cancer.

This product may contain non-woven glass mat made up of filament glass fiber. Filament glass fiber has not been classified as to its carcinogenicity.

4. FIRST AID MEASURES

EYE CONTACT

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the eye lids to ensure thorough rinsing. Get medical attention if irritation persists.

SKIN CONTACT

Clean exposed skin with warm soapy water. Use a waterless hand cleaner to help remove asphalt. Do not use solvents or thinners to remove material from skin. Get medical attention if irritation persists or develops.

INGESTION

If swallowed do not induce vomiting, unless recommended by a doctor, because of danger of aspirating material into lungs, resulting in damage and chemical pneumonia. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration. Get immediate medical attention.

INHALATION

If inhalation occurs, remove person to fresh air. Drink water to clear throat or blow nose to clear. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

NOTES TO PHYSICIAN

This product is a mechanical irritant and is not expected to produce any chronic health effects from exposure. Treatment should be based on removing the source of irritation with treatment of symptoms as necessary.

5. FIRE FIGHTING MEASURES

FLASH POINT

N/A

FLAMMABLE LIMITS

N/A

AUTOIGNITION TEMPERATURE

460 °c /860 degrees °f

EXTINGUISHING MEDIA

Dry chemical, CO², or foam preferred. Avoid use of straight-stream water.

SPECIAL FIRE FIGHTING PROCEDURES

Combustible. Avoid breathing fumes. Firefighters should not enter confined spaces without wearing NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

UNUSUAL FIRE OR EXPLOSION HAZARDS

When heated, fumes may burn if ignition source is provided. Petroleum asphalt fumes can explode if emitted in an enclosed environment and supplied with an ignition source. Burning product will cause thick black smoke.

6. ACCIDENTAL RELEASE MEASURES

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED

Pick up large pieces. Do not dry sweep dusts or blow with air in confined area.

WASTE DISPOSAL METHODS

Dispose in accordance with applicable Federal, State, and Local regulations.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE

Store away from heat and all ignition sources and open flames in accordance with applicable laws and regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Follow protective controls outlined in this MSDS (see Section 8).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION

Normally not needed in well-ventilated areas. If applicable standards are exceeded or are likely to be exceeded, use a NIOSH/MSHA approved, contaminant-specific, air-purifying respirator. If such concentrations are sufficiently high that this respirator is inadequate, or high enough to cause oxygen

deficiency, use a positive pressure self-contained breathing apparatus (SCBA). Follow all applicable respirator use, fitting, and training standards and regulations.

EYE PROTECTION

Chemical safety goggles or face shield needed if eye contact is possible.

SKIN

Leather or cotton gloves if necessary.

VENTILATION

Use only with adequate ventilation to maintain exposures below appropriate exposure limits.

EXPOSURE GUIDELINES

See section 2 for component materials.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR

Dark mat. Some products may have granular surface.

BOILING POINT

>700 °F

PH

Not applicable

MELTING POINT

>200 °F

SPECIFIC GRAVITY

Variable

VAPOR PRESSURE

Not applicable

VAPOR DENSITY (AIR = 1)

Not applicable

% VOLATILE, BY VOLUME

Not applicable

SOLUBILITY IN WATER

Negligible

EVAPORATION RATE (BUTYL ACETATE = 1)

<0.1

OTHER PHYSICAL AND CHEMICAL DATA

None

10. STABILITY AND REACTIVITY

STABILITY

Stable

CONDITIONS TO AVOID

Keep from heat, sparks, open flame, and other sources of ignition. Avoid contact with strong oxidizing agents.

HAZARDOUS POLYMERIZATION

Will not occur.

INCOMPATIBILITY (MATERIALS TO AVOID)

Strong acids or bases, oxidizing agents and selected amines

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide, carbon dioxide, ozone, hydrogen sulfide, oxides of sulfur and various hydrocarbons

11. TOXICOLOGICAL INFORMATION

Laboratory studies have shown chemical extracts of asphalt fumes to be carcinogenic to the skin of experimental animals following lifetime exposures, and to show positive mutagenicity in screening bioassays. The relevance of these studies to human exposures is not known at this time. Inhalation studies have not been conclusive regarding asphalt's carcinogenic potential; however, adverse lung effects were seen in several species of laboratory animals.

Skin application of undiluted air-refined (oxidized) asphalt to experimental animals has not resulted in skin tumors. The results were weakly positive when the samples were applied in a solvent vehicle.

12. ECOLOGICAL INFORMATION

No specific data on this product.

13. DISPOSAL CONSIDERATIONS

This product has not been regulated as a hazardous waste by the USEPA. Dispose in accordance with Federal, State, and Local regulations.

14. TRANSPORT INFORMATION

This product is not regulated as a hazardous material for transport.

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

The components in this product are listed on the TSCA Inventory

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA)

None

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES:

None

SECTION 311/312 HAZARD CATEGORIES:

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Immediate Health

Delayed Health

Fire Hazard

SECTION 313 REPORTABLE INGREDIENTS:

None

CALIFORNIA PROPOSITION 65

This product may contain chemicals, including some polynuclear aromatic hydrocarbons and/or silica, known to the State of California to cause cancer.

16. OTHER INFORMATION

Preparation Date: May, 2000

Replaces: None

Disclaimer of Liability

The information and recommendations contained herein are to the best of **Tamko Roofing Products, Inc.**'s knowledge and belief, accurate and reliable as of the date issued. **Tamko Roofing Products, Inc.** does not warrant or guarantee their accuracy or reliability, and **Tamko Roofing Products, Inc.** shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use.