

MATERIAL SAFETY DATA SHEET

MSDS Number: T027000

Revision Date: August 2005

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: Rubberized Pour Crackfiller

LABEL: TAMKO

USE & DESCRIPTION: Asphalt Roofing Products

CHEMICAL FAMILY: Asphalt Mixture

MANUFACTURED FOR:

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

EMERGENCY TELEPHONE NUMBERS;

General Information: 1-904-284-7571 (8 a.m. - 5 p.m. EST)
1-620-429-1800 (8 a.m. - 5 p.m. CST)
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	<50	5 fume	NE	0.5 fume	NE	mg/M ³
Limestone**	1317-65-3	<20	NE	NE	NE	NE	--
Acrylic	Mixture	<10	NE	NE	NE	NE	--
Clay**	12174-11-7	<05	15 total dust 5 resp. dust	NE	10 total dust 5 resp. dust	NE	mg/M ³
Water	None	<30	N/A	N/A	N/A	N/A	--
Hydrogen Sulfide (in vapor spaces in tanks, tank cars, etc.)	7783-06-4		10	15	10	15	ppm
**contains: crystalline silica >5% quartz	14808-60-7	>0.1	0.05	NE	0.05	NE	mg/M ³
crystobalite	14464-46-1		0.05	NE	0.05	NE	mg/M ³

See Section 8 for additional relevant exposure limits

NE = Not established

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING!

VAPORS, MISTS OR FUMES MAY IRRITATE THE EYES AND RESPIRATORY TRACT ELEVATED TEMPERATURE MATERIAL MAY CAUSE THERMAL BURNS

HEATING MAY RELEASE TOXIC HYDROGEN SULFIDE GAS (H₂S) WHICH MAY ACCUMULTE IN CONFINED SPACES.

<u>HMIS Rating:</u> Health - 0 Flammability - 1 Reactivity - 0	<u>NFPA Rating:</u> Health - 0 Flammability - 1 Reactivity - 0
---	---

Potential Health Effects

EYE CONTACT:

May cause eye irritation resulting in tearing, stinging, redness or swelling. Vapors, mists or fumes may be irritating.

SKIN CONTACT:

May cause skin irritation. Redness, drying and cracking of the skin (dermatitis), may occur following prolonged and repeated contact. In addition, prolonged and repeated exposure to asphalt fumes has been reported to cause skin discoloration, and may increase sensitivity to the sun (photo sensitization).

SKIN ABSORPTION:

Not expected to be significant with short-term skin contact. However, prolonged or repeated skin contact may result in absorption of hazardous components.

INGESTION:

This product may cause irritation of the digestive tract followed by vomiting and central nervous system depression (see "Inhalation" for symptoms). Avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis.

INHALATION:

Exposure to fumes, vapors or mists may cause irritation of the nose and throat, and possible signs of central nervous system depression (symptoms may include headache, dizziness, loss of coordination, and drowsiness). Loss of consciousness can occur in poorly ventilated or confined spaces. Additional signs and symptoms of exposure may include reduced appetite and abnormal fatigue. Use of this product in well-ventilated working conditions is not expected to cause adverse effects.

Hydrogen sulfide (H₂S), an extremely toxic gas, may be emitted from heated asphalt and may accumulate in storage tanks and other confined spaces. At low concentrations (< 1 ppm), H₂S can be irritating to the eyes, nose and throat, and at high concentrations (>500 ppm) can cause rapid unconsciousness and death. The odor of H₂S cannot be used as an indicator of exposure, because the gas causes rapid olfactory fatigue which deadens the sense of smell.

Use this product only under well-ventilated working conditions.

CHRONIC EFFECT/CARCINOGENICITY/SPECIAL TOXIC EFFECTS

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. The National Institute of Occupational Safety and Health (NIOSH) has concluded that at higher temperatures roofing asphalt fumes are a potential occupational carcinogen. If this product is heated or comes in contact with heated material, avoid breathing fumes.

This product may contain small amounts of polycyclic aromatic hydrocarbons (PAH's) which are recognized carcinogens in humans and experimental animals.

This product contains small amounts of respirable crystalline silica (quartz and cristobalite). 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 physical nature of this product may help limit any inhalation hazard from crystalline silica during application and in its hardened state. However, physical forces such as grinding, drilling and other demolition work on the hardened product may liberate crystalline silica dust. Prolonged and repeated exposure to respirable silica-containing dust may have serious lung effects, including silicosis, bronchitis, and lung cancer.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Pre-existing medical conditions that may be aggravated by exposure include disorders of the skin and respiratory tract including asthma.

4. FIRST AID MEASURES**EYE CONTACT:**

Flush immediately with clear water for 20 minutes. Seek medical attention promptly.

SKIN CONTACT:

Clean exposed skin with warm soapy water. Use a waterless hand cleaner to help remove the 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. Avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis. 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 overexposure to vapors, mists, or fumes occurs, remove person to fresh air. If not breathing give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT (METHOD)

425°+ F (COC)

FLAMMABLE LIMITS (% VOLUME IN AIR - SOLVENT COMPONENT)

Lower = N/A

Upper = N/A

AUTOIGNITION TEMPERATURE

Greater than 905° F

EXTINGUISHING MEDIA

Use CO₂ foam, dry chemical, Halon, or water fog to extinguish.

SPECIAL FIRE FIGHTING PROCEDURES

Use of SCBA and full protective equipment (bunker gear). Keep personnel removed from and upwind of the fire. Cool adjacent structures and storage drums with water spray. Evacuate area. Prevent runoff, from fire control dilution, from entering streams or drinking water supply.

UNUSUAL FIRE OR EXPLOSION HAZARDS

Incomplete burning can produce carbon monoxide. Water or foam may cause frothing, which can be violent and endanger fire fighters, especially if sprayed into containers of hot liquids.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL

Treat spill as an oil spill. Shut off and eliminate all sources of ignition. Remove leaking containers to a safe area. Contain and remove by mechanical means. Guard against contamination of water supplies. Solidified asphalt can be scraped up from the ground using mechanical dredges or lifts. Report spills to appropriate authorities. Dispose of in accordance with Federal, State and Local regulations. Do not burn.

WATER SPILL

Solidified asphalt may be removed from water with mechanical dredges or lifts. Runoff may create fire or explosion hazard in sewers. Report spills to appropriate authorities. Dispose of in accordance with Federal, State and Local regulations. Avoid breathing vapors.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store away from ignition sources in a cool area. When materials are heated to application temperatures, precautions should be taken to prevent thermal burns.

NOTE: Hydrogen sulfide (H₂S), an extremely toxic gas, may be emitted from heated asphalt and may accumulate in storage tanks and other confined spaces

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION

Approved respiratory protection must be used when vapor or mist concentrations are unknown or exceed the TLV. Avoid prolonged or repeated breathing of vapor or mists.

EYE PROTECTION

Eye and face protection is recommended when contact with material may occur.

SKIN

Use whole body protection, including impervious gloves and boots.

VENTILATION

Use in well ventilated areas.

EXPOSURE GUIDELINES

Use away from all ignition sources.

Additional potentially relevant exposure limits are listed in Section 2.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR

Black-brown viscous liquid to solid

BOILING POINT

800-1400 °F

PH

N/A

MELTING POINT

92 °F

SPECIFIC GRAVITY

0.9-1.1

VAPOR PRESSURE

N/A

VAPOR DENSITY (AIR = 1)

1

% VOLATILE, BY VOLUME

No data available

SOLUBILITY IN WATER

Negligible

EVAPORATION RATE (BUTYL ACETATE = 1)

10. STABILITY AND REACTIVITY

STABILITY

This product is stable.

CONDITIONS TO AVOID

Keep away from strong oxidizers. Do not store near open flame.

HAZARDOUS POLYMERIZATION

Does not occur.

INCOMPATIBILITY (MATERIALS TO AVOID)

Avoid strong acids, alkalies, oxidizers and water.

HAZARDOUS DECOMPOSITION PRODUCTS

Incomplete burning can produce carbon monoxide, hydrogen sulfide.

11. TOXICOLOGICAL INFORMATION

According to a December 2000 NIOSH report (No. 2001-110) titled "Hazard Review - Health Effects of Occupational Exposure to Asphalt," research has identified low levels of polycyclic aromatic hydrocarbons (PAH's) in laboratory generated asphalt fumes. Benzo(a)pyrene, a PAH and known carcinogen, has been identified in field-generated asphalt fumes. Asphalt roofing fume condensates and fractions have been shown to contain chemicals known as PAH's, which have a chemical structure similar to known carcinogens and genotoxins. Laboratory-generated asphalt fumes have been shown to be genotoxic. Laboratory-derived roofing asphalt fume condensates have been shown to be mutagenic, clastogenic, and inhibit intracellular communication in mammalian cells.

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. May cause mechanical damage to aquatic organisms. The mineral spirit component is expected to volatilize in the environment and to be moderately toxic to both freshwater and marine organisms. The bioaccumulation potential is unknown.

13. DISPOSAL CONSIDERATIONS

EPA Hazard Class: Acute Hazard/Chronic Hazard/Fire Hazard. Dispose of in accordance with Federal, State and Local regulations. Do not burn.

14. TRANSPORT INFORMATION**DOT PROPER SHIPPING NAME**

Elevated Temperature Liquid N.O.S.

DOT HAZARD CLASSIFICATION

N.o.s. 9. Not hazardous for DOT Transport under 49 CFR or for vessel transport under IMDG Code

DOT LABELING REQUIREMENTS**UN/NA NUMBER**

UN 3257 PG III

PACKING GROUP

PG III

NAERG96 NUMBER

128

15. REGULATORY INFORMATION**SARA TITLE III/SUPER FUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 - SECTIONS 302,304,311, 312, AND 313****SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES:**

40 CFR PARTS 300 & 355 (52 FR 13378, 15412 - APRIL 28, 1987; 52 FR 48072 - DECEMBER 12, 1987; 53 FR 5574 - FEBRUARY 15, 1988).

This product can contain the following component(s) identified on Appendix A and B of the extremely hazardous substance list:

Component	Reportable Quantity (lbs)	Threshold Planning Quantity (lbs)
Hydrogen Sulfide	100	500

SECTION 304 - EMERGENCY RELEASE NOTIFICATIONS:

40 CFR PART 355 (52 FR 13378, 15412 - APRIL 28, 1987, 52 FR 48072 - DECEMBER 17, 1987, 53 FR 5574 - FEBRUARY 25, 1988).

This product contains the following component(s) identified either as an extremely hazardous substance (see Section 302) or a CERCLA Hazardous substance 40 CFR 302 (51 FR 34547 - SEPTEMBER 29, 1988), which in case of a spill or release may be subject to reporting requirements under Section 304 of Title III.

HYDROGEN SULFIDE

SECTION 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS:

40 CFR PART 370 (52 FR 38344 - OCTOBER 15, 1987)

Depending on local, state and federal regulations, material safety data sheets (MSDS's) or lists of MSDS's (product names) may be required to be submitted to the State Emergency Response Commission, Local Emergency Planning Committee, and Local Fire Department if you have:

10,000 pounds or more of an OSHA Hazardous substance or
500 pounds or the threshold planning quantity whichever is less,
of an extremely hazardous substance.

* Reportable Quantity levels can vary from state to state and year to year depending on applicable state and/or federal regulations

This product is covered under the criteria defined in OSHA's Hazard Communication Standard 29 CFR 1910.1200 (52 FR 31852 - AUGUST 24, 1987) and should be reported under the following EPA categories:

- XX Immediate (ACUTE) Health Hazard
- Delayed (CHRONIC) Health Hazard
- Fire Hazard
- Sudden Release of Pressure Hazard
- Reactive Hazard

CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

16. OTHER INFORMATION

Preparation Date: February 02, 2000

Revised: July 2002; October 2002 for formatting issues; May 2004 for Prop 65 language; August 2004 for formatting and DOT Transport Information; August 2005 for changes in Emergency Contact Information.

Replaces: None

Disclaimer of Liability

The information and recommendations contained herein are to the best of **TAMKO Roofing Products'** knowledge and belief, accurate and reliable as of the date issued. **TAMKO Roofing Products** does not warrant or guarantee their accuracy or reliability, and **TAMKO Roofing Products** 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 not the user's responsibility to satisfy itself that they are suitable and complete for its particular use.