

TAMKO BUILDING PRODUCTS, INC. SAFETY DATA SHEET – T10M2015**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****TRADE NAME:** TAMKO TAM-SEAL Roof Patch Cartridge**LABEL:** TAMKO**PRODUCT USE & DESCRIPTION:** Roofing Cements**CHEMICAL FAMILY:** Asphalt Mixture**MANUFACTURED BY:**TAMKO Building Products, Inc.
P. O. Box 1404
Joplin, MO 64802-1404
www.TAMKO.com**EMERGENCY TELEPHONE NUMBERS:**General Information: 1-417-624-6644 (8 a.m. - 5 p.m. CST)
Chemtrec: 1-800-424-9300 (24 HOURS)**2. HAZARDS IDENTIFICATION****SIGNAL WORD:** Danger**GHS CLASSIFICATION:**Carcinogenicity – Category 1A
Skin Irritation – Category 2
Eye Irritation – Category 2B
Specific Target Organ Toxicity, Repeated Exposure – Category 1
Flammable Liquid – Category 3**HAZARD STATEMENTS:**May cause cancer.
Causes skin and eye irritation.
Causes damage to organs through prolonged or repeated exposure.
Flammable liquid and vapor.

Additional hazard information: Can cause silicosis and other permanent lung damage.

PRECAUTIONARY STATEMENTS:Prevention

Obtain special instructions before use.	Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/mist/vapors/spray.	Wear protective gloves/protective clothing/eye protection/face protection.
Ground/bond container and receiving equipment.	Take precautionary measures against static discharge.
Use only non-sparking tools.	Keep away heat/sparks/open flames/hot surfaces. - No smoking.
Use explosion-proof equipment.	Wash hands and exposed skin thoroughly after handling.
Keep container tightly closed.	Do not eat, drink or smoke when using this product.

Response

If on skin: Wash with plenty of water.	Get medical advice/attention: If exposed or concerned or you feel unwell, if eye and or skin irritation persists.
Specific treatment: See section 4-First Aid	In case of fire: See Section 5.
If on skin (or hair): Take off immediately all contaminated clothing, wash before reuse. Rinse skin with water/shower.	
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	

Storage

Store locked up, in a well-ventilated place. Keep cool.

Disposal

Dispose in accordance with Federal, State, and Local regulations. (See section 13 for additional information).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	% by Weight	
Asphalt	8052-42-4	40-53	
Limestone*	1317-65-3	20-30	
Mineral Spirits	8052-41-3	15-21	
Clay*	12174-11-7 and 1332-58-7	5-14	
Cellulose fibers	9004-34-6	5-9	
*Contains Crystalline Silica (Quartz)	14808-60-7	0-1	NE = not established

4. FIRST AID MEASURES**EYE CONTACT:** Immediately flush eyes with plenty of cool water for at least 20 minutes, occasionally lifting the eye lids to ensure thorough rinsing. Get medical attention if irritation persists.**SKIN CONTACT:** Clean any exposed skin with warm soapy water if possible. If not, and a waterless hand cleaner is used, it should be without pumice. 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. If vomiting occurs, keep head lower than hips to avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis. Call poison control center or get immediate medical attention.**INHALATION:** If inhalation of dust 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 and get immediate medical attention.**NOTES TO PHYSICIAN:** Treatment should be based on removing the source of irritation with treatment of symptoms as necessary.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Dry chemical, CO₂, or foam fire extinguisher should be used. Avoid use of straight-stream water.

SPECIAL FIRE FIGHTING PROCEDURES: Flammable. 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 may cause thick black smoke. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture.

SEE SECTION 10 FOR COMBUSTION PRODUCTS

6. ACCIDENTAL RELEASE MEASURES

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED: Flammable. Handling equipment must be grounded to prevent sparking. Remove ignition sources, ventilate area, and avoid inhalation, eye or skin contact by using appropriate precautions outlined in Section 8 of this SDS. Stop leak and contain spilled material with absorbent material. Collect adsorbed product and clean up materials in appropriate container for proper disposal. Move containers from spill area. For larger spills, keep unnecessary people away. Stay upwind of and away from spill. Notify proper authorities. Prevent materials from entering drains, sewers, or waterways. Spills entering surface waters or sewers entering/leading to surface waters that cause a sheen must be reported to the National Response Center 1-800-424-8802.

WASTE DISPOSAL METHODS: This product could be classified as a hazardous waste due to ignitability. Dispose in accordance with applicable Federal, State, and Local regulations. Do not burn.

7. HANDLING AND STORAGE

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

THIS PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Follow recommended work practices and use recommended personal protective clothing and equipment. See Section 8 of this SDS. Avoid all ignition sources. Storage areas should be ventilated to reduce fire and explosion hazards, and possible overexposure of personnel to fumes and vapors. Keep containers closed when not in use. Do not store near food and beverages or smoking materials. Empty containers retain residue (liquid and/or vapor) and can be dangerous. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.** Do not attempt to clean since residue is difficult to remove. For work on tanks, refer to OSHA regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding or other contemplated operations. See Section 13 for disposal.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

Components	CAS No.	OSHA		ACGIH		Unit
		TWA	STEL	TWA	STEL	
Raw Products						
Asphalt	8052-42-4	NE	NE	0.5** I	NE	mg/m ³
Limestone†	1317-65-3	15/5***	NE	10/3***	NE	mg/m ³
Mineral Spirits	8052-41-3	500	NE	100	NE	ppm
Clay†	12174-11-7	15/5***	NE	10/3***	NE	mg/m ³
Cellulose fibers	9004-34-6	15/5***	NE	10/3***	NE	mg/m ³
†Crystalline Silica Quartz	14808-60-7	See 1910.1000 Table Z.3	NE	0.025	NE	mg/m ³

NE= Not established

* Note: Due to the form of the product, hazardous exposures from this product are not expected to occur. Gloves must be worn when handling and adequate ventilation must be provided during roofing related activities.

** Asphalt Fume as benzene-soluble inhalable aerosol (Bitumen)

I = Inhalable Fraction

*** Total Nuisance Dust/Respirable Dust

RESPIRATORY PROTECTION: Normally not needed in well-ventilated areas. If applicable exposure standards are exceeded or can be exceeded, use a NIOSH approved air-purifying respirator. If 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/SCBA use, fitting, training standards, and regulations.

VENTILATION: Use only with adequate ventilation to maintain exposures below applicable exposure limits. Local exhaust ventilation and/or enclosure of the process may be required. All equipment must be explosion proof.

EYE PROTECTION: Chemical safety goggles with side-shields or face shield must be used if eye contact is possible.

SKIN: Chemical resistant gloves, apron, or other protective clothing needed to prevent skin contact. . Remove and clean contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Black, putty-like material with solvent odor.	Upper/Lower Flammability or Explosive Limits:	7.0 / 0.8
Odor Threshold	Not Applicable	Vapor Pressure:	2mm @ 70 °F
pH:	Not Applicable	Vapor Density (Air = 1):	5
Boiling Point:	320 °F	Specific Gravity/Relative Density:	1.0 – 1.23
Melting Point:	No Data Available	Solubility (IES):	Negligible
Flash Point:	112 °F COC	Initial Boiling Point and Boiling Range:	No Data Available
Autoignition Temperature:	460 °F	Evaporation Rate (Butyl Acetate = 1):	<0.1
Viscosity:	Not Applicable	Flammability(Solid and Gas):	Not Applicable
Decomposition Temperature:	No Data Available	Partition Coefficient: N-Octanol/Water:	No Data Available

10. STABILITY AND REACTIVITY

STABILITY: Stable

REACTIVITY: Non-reactive.

CONDITIONS TO AVOID: Keep from heat, sparks, open flame and other sources of ignition. Avoid contact with strong oxidizing agents. Prevent vapor accumulation. **THIS PRODUCT SHOULD NOT BE HEATED OR BURNED USING A DIRECT FLAME DEVICE.**

HAZARDOUS REACTION: Polymerization will not occur.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong acids or bases, oxidizing agents and selected amines.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, ozone, hydrogen sulfide, oxides of sulfur and various hydrocarbons.

11. TOXICOLOGICAL INFORMATION

EYE – Can cause eye irritation.

SKIN – Can cause skin irritation.

INHALATION – Cured product particles, fume and vapor may cause upper respiratory irritation.

INGESTION – May cause harmful effects if swallowed.

THE FOLLOWING COMPONENT DATA IS PROVIDED FOR USER INFORMATION:

SILICA

Cancer - This product contains crystalline silica (quartz). IARC has determined that crystalline silica inhaled in the form of quartz from occupational sources is carcinogenic to humans (Group 1). IARC concluded that there was sufficient evidence in humans and animals for the carcinogenicity of inhaled crystalline silica in the form of quartz from occupational sources. The NTP has classified silica as known to be a human carcinogen. 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 sawing, grinding, drilling and other demolition work on this product may liberate crystalline silica dust.

Acute Effects - Exposure to silica dust can cause irritation of the eyes, nose and throat. Exposure to high concentrations can also cause Accelerated Silicosis causing progressive shortness of breath, fever, coughing, and weight loss.

Chronic Effects – In addition to cancer, breathing of silica over a period of time can cause damage to the lung tissue or silicosis after long exposure at low concentrations causing shortness of breath, fever, coughing, and weight loss. Prolonged and repeated exposure to respirable silica-containing dust may cause autoimmune disease, kidney disease, tuberculosis, and nonmalignant respiratory disease, and bronchitis.

PETROLEUM HYDROCARBON SOLVENT (MINERAL SPIRITS)

Cancer - This product contains petroleum hydrocarbon solvent. This product also may contain small amounts of polyaromatic hydrocarbons and other hydrocarbons that are recognized carcinogens in humans and experimental animals.

Acute Effects - Inhalation of cured product particles, fumes, vapors, or mist may cause nose, throat, lung, and mucous membrane irritation. Inhalation may cause central nervous system depression. Eye contact may cause irritation, stinging, tearing, redness, and swelling. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and dizziness, staggering gait, drowsiness, loss of consciousness, and delirium, as well as additional central nervous system effects. Aspiration into the lungs during vomiting may result in severe lung damage or death.

Chronic Effects - Chronic effects may include damage to the following target organs: kidneys, lungs, liver, mucous membranes, upper respiratory tract, skin, central nervous system, eye, lens or cornea, and/or auditory system. Reports have associated prolonged or repeated occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as "Solvent or Painter's Syndrome"). Intentional misuse by deliberately inhaling vapors of this product may be harmful or fatal. Chronic effects of ingestion and subsequent aspiration into the lungs may cause chronic lung dysfunction.

ASPHALT

Cancer - This product contains cutback asphalt. In 1987 IARC classified "extracts of steam and air- refined bitumens" (cutback asphalt) as Group 2B, "possibly carcinogenic to humans." In 2011 IARC did not specifically classify cutback asphalt as Group 2B. NIOSH has also concluded that the fumes of heated roofing asphalt are a potential occupational carcinogen. Asphalt may also cause irritation of the respiratory tract. The physical nature of this product may help limit any inhalation hazard from asphalt after curing. However, physical forces such as sawing, grinding, drilling and other demolition work on this product may liberate cured product particles containing asphalt. Burning or heating of the product may cause fumes, vapors or mists.

Acute Effects - Inhalation of cured product particles, fumes, or vapors may cause nose, throat, and mucous membrane irritation. Eye contact may cause severe irritation, redness, tearing, and blurred vision. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea.

Chronic Effects - In addition to cancer, prolonged or repeated skin contact may result in dryness and irritation of the skin. Long term skin exposure to asphalt can increase sensitivity to the sun, and may cause discoloration. Asphalt may also cause irritation of the respiratory tract.

12. ECOLOGICAL INFORMATION:

Ecotoxicity – No specific data available on this product. Product may cause mechanical damage to aquatic organisms. The mineral spirits components is expected to volatilize in the environment and to be moderately toxic to both freshwater and marine organisms.

Persistence and degradability – No data available

Bioaccumulative potential – No data available

Mobility in Soil – No data available

Other adverse effects (GHG, Ozone) - No data available

13. DISPOSAL CONSIDERATIONS:

This product could be classified as a hazardous waste due to ignitability. Dispose in accordance with Federal, State, and Local regulations. Prevent materials from entering drains, sewers, or waterways. Do not dump on the ground. Do not burn.

14. TRANSPORT INFORMATION:

This product is regulated as a hazardous material for transport under 49 CFR and for vessel transport under the IMDG Code.

DOT PROPER SHIPPING NAME: TAR, LIQUID

DOT HAZARD CLASSIFICATION: Combustible liquid, non-hazardous in non-bulk quantities (less than 119 gallons each). This exception to 49 CFR cited at 173.150(f).

DOT LABELING REQUIREMENTS: Combustible liquid

UN/NA NUMBER: UN 1999

PACKING GROUP: PG III

IMDG CODE: Hazardous for vessel transport under the IMDG Code

IMDG SHIPPING NAME: Tars, liquid

IMDG HAZARD CLASS: 3

UN/ID NUMBER: UN 1999

PACKING GROUP NUMBER: PG III

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA): Some 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: Immediate Health; Delayed Health; Fire Hazard

Section 313 Reportable Ingredients: None

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

<u>HMS Rating:</u>	<u>NFPA Rating:</u>
Health - * 2	Health - 2
Flammability - 2	Flammability - 2
Reactivity - 0	Reactivity - 0

Preparation Date: **April 2015**

Disclaimer of Liability

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