



MATERIAL SAFETY DATA SHEET

24 HOUR EMERGENCY ASSISTANCE	GENERAL MSDS INFORMATION
NEXUS 1-574-383-7061	Office: 574-287-2828

HMIS RATING:

HEALTH	FIRE	REACTIVITY	HAZARD RATING
2	1	0	LEAST-0 SLIGHT-1 MODERATE-2 HIGH-3 EXTREME-4

*FOR ACUTE AND CRONIC HEALTH EFFECTS REFER TO SECTION 9

1. PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER	MANUFACTURER
BIT MAT PRODUCTS INDIANA 24359 SR 23 South Bend, IN. 46614 Office: 574-287-2828 Fax: 574-233-7363	BIT MAT PRODUCTS INDIANA 24359 SR 23 South Bend, IN. 46614 Office: 574-287-2828 Fax: 574-233-7363

PRODUCT NAME	BIO-250, BM-90
SYNONYMS	LOW VOC COLD MIX ASPHALT
CHEMICAL FAMILY	PETROLEUM HYDROCARBON MIXTURE
RECOMMENDED USES	COLD MIX
EMERGENCY CONTACTS	NEXUS 1-574-383-7061
MSDS NUMBER	12-012
MSDS REVISION DATE:	1/26/2015

2. HAZARDS IDENTIFICATION

Eye Hazards

Contact with product at elevated temperatures can result in THERMAL-BURNS. Prolonged exposure to vapors, fumes, or mist may cause irritation to the eyes.

Skin Hazards

Only contact with product at elevated temperatures can result in THERMAL-BURNS. Prolonged or repeated skin contact with this product, may possibly lead to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" or an "irritant" by OSHA criteria.

Ingestion Hazards

If ingested, DO NOT induce vomiting. This product is presumed to be no more than Slightly Toxic if ingested.

Inhalation Hazards

Asphalt Cement at elevated temperatures may produce Hydrogen Sulfide Gas. Inhalation of vapors, mist or fumes containing Hydrogen Sulfide at concentrations between 10ppm-20ppm may cause irritation to nose, throat and respiratory system. Concentrations >100ppm are considered IDLH can lead to serious health concerns up to and including death.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS#	APPROXIMATE CONCENTRATION
Asphalt Cement	8052-42-4	60-99%
Agricultural Based Organic	Proprietary	1-40%
Hydrogen Sulfide	7783-06-4	<1.0%

4. FIRST AID MEASURES

Eye

Gently flush immediately with cold water for 15 minutes. Do not attempt to remove solidified material from the eye, as this may further injury. Take the victim to obtain medical assistance.

Skin

Hot Asphalt Material - Cool the affected body parts immediately by submerging in cold water until the material has cooled. Do not attempt to remove solidified material from the burn area as this may further tissue damage. Take the victim to obtain medical assistance immediately. Once product has cooled, remove asphalt by soaking dressing in mineral oil and place over affected area for 2-3 hours. If irritation occurs, call a physician. Never try to remove the material with solvents.

Ingestion

Ingestion is not likely. If large amounts are swallowed, do not induce vomiting and immediately call a physician.

4b. FIRST AID MEASURES-continued

Inhalation

If irritation occurs from inhalation overexposure, immediately remove victim from source to fresh air and seek medical attention

5. FIRE FIGHTING MEASURES

Flash Point: >290°C(>550°F)

Autoignition Point: NOT TESTED

Lower Explosive Limit: NOT TESTED

Upper Explosive Limit: NOT TESTED

Extinguishing Media

Foam, Carbon Dioxide, Dry Chemical, and Water Spray may all be suitable in extinguishing fires involving this product. Avoid using water streams to prevent frothing. Use water spray to cool exposed surfaces.

6. ACCIDENTAL RELEASE MEASURES

Stop source of leak. Eliminate sources of ignition. Contain by diking or impounding. Absorbents can be used to contain spill. After containment, emulsified asphalt can be collected for disposal. Advise authorities if product has entered a sewer or water source. Assure conformity with local, state, and federal governmental regulations for disposal.

7. HANDLING AND STORAGE

Handling And Storage Precautions

When opening covers and outlet cap on storage tanks, use faceshield and gloves to avoid possible injury from pressurized asphalt. Hydrogen sulfide can be generated and accumulated in storage tanks and bulk transport compartments. Stay upwind and vent storage hatches before unloading. Keep heating units and flues in storage tanks covered with at least 12 inches of asphalt. Do not overheat.

Additional Handling and Storage Precautions

Empty Container Warning: 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.

Work/Hygienic Practices

Skin contact and the breathing of mists, fumes, or vapors should be reduced to a minimum to avoid any ill effects. Thoroughly wash exposed skin areas after work to avoid dermatitis. Consider the use of lanolin skin treatments before handling or working around asphalt mixtures.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls

Local or general exhaust required if in an enclosed area to remain below the TLV. If work place exposure limits are exceeded, a NIOSH/MSHA approved air supplied respirator is advised in the absence of proper environmental engineering controls.

Eye/Face Protection

Safety goggles or chemical splash goggles if splashing is anticipated.

Skin Protection

Thermal resistant, Oil impervious gloves to protect hands, such as PVC, All cotton, long sleeve shirt. All cotton full length pants. Leather work boots.

Respiratory Protection

Asphalt cement at elevated temperatures may release Hydrogen Sulfide vapors. Respiratory protection is not normally required under normal conditions and adequate ventilation. If high

Other/General Protection

Wear body covering clothes to avoid prolonged or repeated exposure. Launder before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Ingredient(s) - Exposure Limits

PETROLEUM ASPHALT

- OSHA PEL: Not established for this material.
- ACGIH TLV: 0.5 mg/m³ as benzene-extractable inhalable particulate (or equivalent method).
- NIOSH REL: 5.0 mg/m³ as a 15-minute ceiling limit measured as total particulates

Hydrogen Sulfide

ACGIH TLV (United States, 1/2009)

- STEL: 21mg/m³ 15 minute(s)
- STEL: 15ppm, 15 minute(s)
- TWA: 14mg/m³, 8 hours
- TWA: 10ppm, 8 hours

OSHA PEL Z2 (United States, 11/2006)

- AMP: 50ppm, 10 minutes
- CEIL: 20ppm
- IDLH, 100ppm

9. PHYSICAL AND CHEMICAL PROPERTIES-CONT.

Appearance

-Black, brown Liquid

Odor

-Characteristic Asphalt Odor

Chemical Type: Mixture

Physical State: Viscous Liquid

Flash Point: Closed Cup: >290°C(>550°F)[ATSM D-92 Cleveland]

Specific Gravity: 0.95-1.05

1020 to 1040 kg/m³ at ambient temperatures

Vapor Pressure: 1mm-40mm Hg @ 77 F

Vapor Density: >1.0

pH Factor: 5-9

Solubility : Slightly soluble in water

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous Polymerization: Will not occur

Incompatible Materials:

-Strong Oxidizers

Hazardous Decomposition Products:

-Fumes, Smoke, Carbon Monoxide, Hydrogen Sulfide, Sulfur Dioxide, Aldehydes, and Hydrocarbons

11. TOXICOLOGICAL INFORMATION

11.a. International Agency for Research on Cancer Ruling

Occupational exposures to straight-run bitumens and their emissions during road paving

-On the basis of an earlier meta-analysis, the IARC multi-center study and several more recent independent studies, the Working Group concluded that there was inadequate evidence in humans for the carcinogenicity of occupational exposures during road paving with straight-run bitumens. Also, there was inadequate evidence in experimental animals for the carcinogenicity of extracts and of fume condensates of this type of bitumens. However, studies of workers exposed to bitumen emissions during paving with straight-run bitumens showed mutagenic and genotoxic/cytogenetic effects in these workers. Similar effects were also observed in experimental systems under controlled conditions. This strong mechanistic evidence led to the classification of occupational exposures to straight-run bitumens and their emissions during road paving as "possibly carcinogenic to humans" (Group 2B). However, the IARC Working Group did not make a classification specific to asphalt emulsions. Asphalt emulsions are handled and applied at lower temperatures; therefore if properly handled are not expected to cause cancer in humans.

11.b. Health Hazard Characterization:

-Uncertainties exist in the hazard characterization of asphalt fumes by many factors including its chemical complexity, limitation of the information, the inclusion of coal tar in asphalts in past decades, other confounders and mixed results of human studies. Concise International Chemical Assessment Documents relating to asphalt and fumes can be obtained on the internet at <http://incem.org/documents/cicads/cicads/cicad59.htm>. Despite conflicting reports, the following bullet points should be noted:

- Currently classified as A4 (not classifiable as a human carcinogen). Asphalt Coal Tar Free
- Breathing of mists, fumes, or vapors should be reduced to a minimum to avoid any ill effects.
- Asphalt and asphalt fumes contain trace levels of polynuclear aromatic hydrocarbons that are known carcinogens.
- Chronic health effects would not be expected as long as good hygiene and proper safety precautions are practiced and exposures are less than the TLVs/RELS.
- After using material or being around fumes, wash exposed areas thoroughly with soap and water. Showering immediately after work is a good personal hygiene practice.

11.b. Health Hazard Characterization Continued-

Chronic human health effects would not be expected as long as good personal hygiene and proper safety precautions are practiced.

12. ECOLOGICAL INFORMATION

No testing has been performed by the manufacturer.

13. DISPOSAL CONSIDERATIONS

Waste or contaminated asphalt is normally disposed in a special waste or industrial landfill. Consider recycling into pavement mixtures whenever possible. Disposal of this product should at

RCRA Information

This material, if discarded as produced, is not a RCRA "listed" hazardous waste. Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. It is the responsibility of the generator to fully characterize for toxicity and other RCRA parameters prior to disposal (40 CFR 261). Along with properly characterizing all waste materials, consult state and local regulations regarding proper disposal of this material.

14. TRANSPORT INFORMATION

DOT Classification: Elevated temperature liquid, n.o.s., UN number:UN3257, 9, PGIII

15. REGULATORY INFORMATION

U.S. Regulatory Information

Toxic Substances Control Act: This product is listed on the US TSCA Chemical Inventory Section 8(b).

Clean Water Act: Petroleum hydrocarbons are considered hazardous if released into navigable waters.

OSHA Hazard Communication: See individual state requirements for Right-To-Know lists.

SARA Hazard Classes

-Acute Health Hazard

NFPA RATING:

HEALTH: 2

FLAMABILITY:1

REACTIVITY:0

16. OTHER INFORMATION

VAPOR MAY CONTAIN HYDROGEN SULFIDE(H₂S) GAS WHICH CAN BE HARMFUL OR FATAL IF INHALED. MAY CAUSE RESPIRATORY TRACT AND EYE IRRITATION. ELEVATED TEMPERATURE PRODUCT CAN CAUSE THERMAL BURNS.

This material safety data sheet and the information herein is offered in good faith as accurate. The information has been compiled from sources considered to be reliable and accurate to the best of our knowledge, but is not guaranteed to be so. Health and safety precautions in this data sheet may not be adequate for all individuals under all circumstances. It is the users obligation to evaluate and use this product safely and to comply with all applicable laws and regulations whether they be federal, state, or local. No warranty is made, either expressed or implied through the issuance of this MSDS.