



CCAP - PATCH

SDS Number: AMI-500

Revision Date: 2/1/2019

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1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

Asphalt Materials, Inc.
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Indianapolis, Indiana 46268

Vendor

Asphalt Materials, Inc.
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Product Name: CCAP - PATCH
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Common Name: Asphalt Mix
CAS Number: Mixture
Chemical Family: Mixture of Petroleum Asphalt with Limestone and Aggregates
Synonyms: Asphalt Patch Mixture, Cold Mix, Paving Asphalt Mixture
Product Use: Highway Patching, Paving Applications, and Mixtures

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):
Health, Acute toxicity, 5 Inhalation
Health, Acute toxicity, 5 Dermal

GHS Label elements, including precautionary statements

GHS Signal Word: WARNING

GHS Hazard Pictograms:

no GHS pictograms indicated for this product

GHS Hazard Statements:

H333 - May be harmful if inhaled
H313 - May be harmful in contact with skin

GHS Precautionary Statements:

P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Hazards not otherwise classified (HNOC) or not covered by GHS

Inhalation:

Breathing vapors, fumes, or mists may cause irritation to nasal and respiratory tract and central nervous system effects. Symptoms may include labored breathing, sore throat, coughing, wheezing, headache, and nausea. Some asphalts may contain sulfur compounds, which may form Hydrogen Sulfide when heating.

Exposure to lower concentrations of Hydrogen Sulfide can result in eye irritation, sore throat and cough, nausea, shortness of breath, and fluid in the lungs. Long-term, low level exposure may result in fatigue, loss of appetite, headaches, irritability, poor memory, and dizziness.

0.02 ppm Odor threshold.
10 ppm 8-hour per day exposure limit to Hydrogen Sulfide.
10-20 ppm Borderline concentration for eye irritation.



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- 10-100 ppm Leads to eye damage.
- 100-150 ppm Olfactory nerve paralyzed after a few minutes, sense of smell disappears, and often awareness of danger.
- 320-530 ppm Leads to pulmonary edema with the possibility of death.
- 530-1,000 ppm Causes strong stimulation of central nervous system and rapid breathing.
- 800 ppm Lethal concentration of 50% of humans for a 5-minute exposure (LC50).
- >1,000 ppm Immediate collapse with loss of breathing, even after inhalation of a single breath.

Do not depend on sense of smell for warning. Hydrogen Sulfide causes rapid olfactory fatigue (deadens sense of smell).

Skin Contact: Contact with hot asphalt can cause thermal burns. Prolonged exposure to vapors, fumes, or mists may cause irritation and redness.

Eye Contact: Contact with hot asphalt can cause thermal burns to the eyes. Prolonged exposure to vapors, fumes, or mists may cause irritation, redness, and tearing.

Ingestion: Ingestion is not likely. Ingestion may cause thermal burns. If ingestion of molten material occurs, keep victim's head below their hips to prevent asphalt from reaching the lungs. Take victim to obtain medical assistance immediately.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
0	3-8%	Petroleum Asphalt CM-90 Product
1317-65-3	92-97%	Limestone

Asphalt: Asphalt is a complex mixture of high molecular weight hydrocarbons produced from crude petroleum. Composition varies depending on the source of the crude and the specifications of the final product.

Aggregate: Mixture of Limestone and Natural Sand.

Other Components: Depending on the specifications of the final product, small quantities of crumb rubber, blast furnace slag, latex polymer, etc. may be added.

Hydrogen Sulfide: Trace amounts of Hydrogen Sulfide may be present as a naturally-occurring constituent in the petroleum stream and are not added separately to the product.

4 FIRST AID MEASURES

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

Skin Contact: Hot Molten 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 burn area as this may further tissue damage. Take the victim to obtain medical assistance immediately.

Cold Material: Remove cold 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 material with solvents.

Eye Contact: 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 victim to obtain medical assistance.

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



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5 FIRE FIGHTING MEASURES

Flammability: NFPA Class IIIA
Flash Point: >450°F
Flash Point Method: ASTM D-93
Autoignition Temp: >800°F
LEL: 1 %
UEL: 6 %

Fire and Explosion Hazards:

Fire and explosion very unlikely in Cold Mix Asphalt unless heated to temperatures above recommended mixing temperatures for the grade of paving mixture.

Extinguishing Media:

Foam, Carbon Dioxide, Dry Chemical, and water spray may all be suitable in extinguishing fires involving this product.

Fire Fighting Instructions:

Use water spray to cool exposed surfaces and to assist in solidifying hot asphalt material.

6 ACCIDENTAL RELEASE MEASURES

Spillage of cold mixed asphalt should cause no environmental damage unless the asphalt used in the mixture is an emulsion and contact with a water stream is made. Should an emulsion-based mix enter a water stream, petroleum containment absorbent materials must be placed on the water to contain the oil. Emulsions may somewhat dissolve in water. Non-emulsion asphalt mixtures will probably cause aesthetic damage and be unsightly. Once cold mix asphalt spills have cooled and solidified, scoop the material and dispose as industrial waste as appropriate if unable to use or recycle.

7 HANDLING AND STORAGE

Handling Precautions: Do not overheat.

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 BURN OR EXPLODE AND CAUSE INJURY OR DEATH.

Hot Material Warning: Hot material (above 212°F) contact with water results in a violent expansion as water turns to steam. This can lead to a dangerous boilover and a pressurized container or cargo tank, which can cause damage, rupture of the container or cargo tank, and thermal burn injuries. Never load hot asphalt product into cargo tanks with water condensation or emulsion residue from the previous load without servicing the cargo tank. Keep away from incompatible materials.

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

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Personal Protective Equipment: Eye and Face Protection: Safety glasses or chemical splash goggles should be worn with faceshield if splashing is anticipated.

Skin Protection: Insulated, oil-impervious gloves for hot asphalt or cloth gloves for cold asphalt. Long-sleeve shirts and long pants should be worn at all times around hot asphalt to prevent thermal burns.



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Respiratory Protection: Respiratory protection is not normally required under normal conditions and adequate ventilation. If high vapors and expected, use a respirator approved for organic vapors. Observe respirator protection factor criteria cited in ANSI Z88.2 (1980) and other OSHA requirements found in 29 CFR 1910.134. Use air-supplied respirators or self-contained breathing apparatus for fire fighting and in confined spaces when asphalt vapor or Hydrogen Sulfide gas exceeds permissible limits.

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.

Other Protection: Wear body-covering clothes to avoid prolonged or repeated exposure. Launder before reuse.

PETROLEUM ASPHALT CM-150 PRODUCT:

- 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.

LIMESTONE and AGGREGATES:

- ACGIH TLV: 10 mg/m³ (total dust)
OSHA PEL: 15 mg/m³ (total dust), 5 mg/m³ (dust respirable fraction)

HYDROGEN SULFIDE:

- ACGIH TLV: 1 ppm (1.4 mg/m³) for 8 hours
ACGIH STEL: 5 ppm (7 mg/m³) for 15 minutes

9 PHYSICAL AND CHEMICAL PROPERTIES

Table with 2 columns: Property and Value. Properties include Appearance, Physical State, Spec Grav./Density, Boiling Point, Evap. Rate, Molecular weight, Odor, Solubility, Softening Point, Flash Point, Auto-Ignition Temp, and UFL/LFL.

10 STABILITY AND REACTIVITY

Table with 2 columns: Property and Value. Properties include Chemical Stability, Conditions to Avoid, Materials to Avoid, Hazardous Decomposition, and Hazardous Polymerization.

11 TOXICOLOGICAL INFORMATION

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).



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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://inchem.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.

12 ECOLOGICAL INFORMATION

May cause fouling of water. Cutback asphalt and asphalt emulsion mixtures will flow with running water and rainfall until such mixtures are dry and cured hard. Once solidified, this product will no longer exhibit these characteristics.

13 DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state, and federal regulations. After cooling, waste or contaminated asphalt mixtures may be scooped and stockpiled for later recycling into asphalt pavement mixtures, pugmilled into cold mix, or disposed in an approved special waste, industrial waste, or construction debris landfill.

RCRA Information:

This material, if discarded as produced, is not a RCRA "listed" or "characteristic" 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

This product as produced and shipped is not considered a hazardous material by the U.S. Department of Transportation.

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Petroleum Asphalt CM-90 Product (0) [3-8%]

Limestone (1317-65-3) [92-97%] MASS, OSHAWAC, PA, TSCA, TXAIR

Regulatory CODE Descriptions

- MASS = MA Massachusetts Hazardous Substances List
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level



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OTHER INFORMATION

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

Asphalt Materials, Inc.