

October 18, 2004

MATERIAL SAFETY DATA SHEET

PERMA-PATCH®

MATERIAL INFORMATION BULLETIN

(Approved-“Essentially similar” to Form OSHA 20 and OSHA 174 Material Safety Data Sheet)

IDENTITY (As used on Label and List)
PERMA-PATCH

MANUFACTURER'S NAME
The National Paving & Contracting Company
6115 Oakleaf Ave.
Baltimore, Maryland 21215
Emergency Phone: Chemtrec 800-424-9300
Telephone for information: 410-764-7117

<u>TYPICAL COMPOSITION</u>	<u>OSHA PEL</u>	<u>ACGIH PEL</u>	<u>%</u>
Petroleum Asphalt with Petroleum Distillate	None	5 mg/cu.m	5
Limestone	15 mg/cu.m	10 mg/cu.m	94
Additives	Non-established by OSHA		1

**PHYSIOLOGICAL AND
HEALTH EFFECTS**

Expected to cause no more than minor
eye irritation.

Expected to produce no more than minor irritation,
but prolonged or frequently repeated skin contact
may be harmful. See additional health data.

Prolonged breathing of high vapor concentrations
can cause central nervous system depression.
See additional health data.
(ONLY PERTAINS TO LIQUID FORM)

**EMERGENCY AND FIRST AID
PROCEDURES**

EYES

Wash eye with fresh water for at least
15 minutes. If irritation continues, see
a doctor.

SKIN

Remove heavily contaminated clothing
and wash skin thoroughly with soap
and water. DO NOT use solvents or
thinners to remove materials from skin.
Asphalt can be removed with vegetable
oil or mineral oil.

INHALATION

If there are any signs or symptoms as
described in this bulletin due to
breathing this material, move the
person to fresh air. If any of these
effects continue, see a doctor.

MATERIAL SAFETY DATA SHEET

PAGE 2

INGESTION

Not expected to be acutely toxic by ingestion.
NOTE TO PHYSICIAN: This material contains light hydrocarbon liquid and an aspiration hazard may exist.

If a large volume of this material is swallowed give a large amount of water to drink, induce vomiting and call a doctor.

SPECIAL PROTECTIVE INFORMATION

Eye Protection: Avoid contact with eyes. Eye contact can be avoided by wearing chemical safety goggles.

Skin Protection: Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective clothing including rubber gloves. If skin contact occurs, a washing facility should be available nearby.

Respiratory Protection: If operating conditions create high airborne concentrations which exceed the exposure standard, the use of an approved respirator is recommended. (ONLY PERTAINS TO LIQUID FORM)

Ventilation: Use adequate ventilation to keep the airborne concentrations of this material below the exposure standard.

FIRE PROTECTION

Liquid evaporates and forms vapor(fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 85 degrees F. (ONLY PERTAINS TO LIQUID FORM)

ENVIROMENTAL PROTECTION

Environmental Impact: This material is not expected to present any environmental problems.

Precautions if Material is Released or Spilled: Eliminate open flames in vicinity of spill or released vapor. Clean up spills as soon as possible, observing precautions in Special Protective Information and product label. Place spilled material in disposable containers. Hydrocarbons material such as kerosene or mineral oil can be used to dissolve any remaining material; and this material may be absorbed with clay or diatomaceous earth.

MATERIAL SAFETY DATA SHEET

PAGE 3

Waste Disposal Methods: Place contaminated material in disposal containers and bury in approved dumping area.

Reactivity Data: Stability (Thermal, Light, etc.) Stable.

Petroleum Asphalt with Petroleum Distillate and Additives:

LIQUID ONLY

Flash Point: (TOC) 150 F (Min)

Auto ignition Temperature: 480 F (Min)

Flammability Limits: (Asphalt)

LEL 0.9

VEL 6.0

Extinguishing Media: CO2, Dry Chemical, Foam, Water Spray. NFPA ratings: Health 0; Flammability 2; Reactivity 0; Special NDA; (Least-0 Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association or if applicable, The National Paint and Coating Association, and do not necessarily reflect the hazard evaluation of the National Paving & Contracting Co. Read the entire document and label before using this product. This liquid is mixed with ¼" limestone and is only 5% of the finished product (60 lb. bag). This description refers only to the pure liquid and not to the finished product.

Special Fire Fighting Procedures: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self contained breathing apparatus. See Hazardous Decomposition Products. Read the entire bulletin. (**ONLY PERTAINS TO LIQUID FORM**)

SPECIAL PRECAUTIONS

See page Four (4)

Incompatibility (Materials to Avoid): May react with strong oxidizing materials.

Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor, and may produce oxide sulfur, incomplete combustion can produce carbon monoxide. (only pertains to liquid form)

Hazardous Polymerization: Will not occur.

Solubility: Soluble in most halogenated hydrocarbons and benzene; insoluble in water and alcohols.

Appearance: (Color, Odor, etc): Oily smelling, black viscous liquid.

Initial Boiling Point: 270 F (Min)

Melting Point: N/A

Specific Gravity: 0.98 @ 15.6/15.6C

Vapor Pressure: 2 mm Hg @ 100 F

Vapor Density: (Air=1):NDA

Percent Volatile (Volume 96): 25 %

Evaporation;(=1): N/A

Viscosity: 250-500 cSt @
140 F

N/A=Not Available

NDA= No Data Available

MATERIAL SAFETY DATA SHEET

PAGE 4

The information listed on the previous page is based on data of which we are aware and is believed to be correct as of date here. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. The information is furnished upon the condition that the person receiving it shall make his/her own determination of the suitability of the material for his/her particular purpose.

Additional Health Data

Signs and symptoms of ventral nervous system depression may include one or more of the following: headache, dizziness, loss of appetite, weakness and loss of coordination. Affected persons usually experience complete recovery when removed from the exposure area.

No association has been established between industrial exposure to petroleum asphalt and cancer in humans. Asphalts contain small amounts of polynuclear aromatic hydrocarbons (ONS's) which when concentrated, have been shown to cause skin cancer in mice after prolonged and frequent contact. Studies in which mice were exposed to a variety of whole asphalts did not result in any increased cancer rate. Brief or intermittent skin contact with this asphalt product is not expected to produce any serious effects. While normal handling of this product is not likely to cause cancer in humans, skin contact and breathing of mists, fumes or vapors should be reduced to a minimum. We strongly recommend that the precautions outlined in this bulletin be followed when handling this material.

SPECIAL PRECAUTIONS

READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

DO NOT USE OR STORE NEAR FLAME, SPARKS OR HOT SURFACES. USE ONLY IN WELL VENTILLATED AREA. (ONLY PERTAINS TO LIQUID FORM).