



## SECTION 4 - PRIMARY ROUTES OF ENTRY AND EMERGENCY FIRST AID PROCEDURES

**Eye Contact:** Petroleum distillate (mineral spirits), petroleum asphalt, fibers and minerals can cause severe irritation, redness, tearing, and blurred vision. Fibers and minerals may cause mechanical irritation, Amine Salts are corrosive.

**Skin:** Petroleum Distillate and Asphalt - prolonged or repeated contact can cause moderate irritation, defatting dermatitis. Remove contaminated clothing, thoroughly wash exposed area with soap and water. If irritation or redness develops and persists, get medical attention. Amine salts may cause skin sensitivities, an allergic reaction, which becomes evident on overexposure.

**Inhalation:** Mineral Spirits and Aromatic Petroleum Distillate - excessive inhalation of vapors can cause irritation of nose or throat, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and even asphyxiation. Remove individual to fresh air; if breathing is difficult, administer oxygen, if breathing has stopped, give artificial respiration. Keep person warm and quiet. **GET MEDICAL ATTENTION.**

**Ingestion:** Aspiration hazard. DO NOT INDUCE VOMIT - transport to hospital immediately. **GET MEDICAL ATTENTION IMMEDIATELY.** Note to Physician - perform gastric lavage in accordance with procedures for ingestion of petroleum products. Amine salts may be corrosive to mouth, esophagus, and stomach.

## SECTION 5 - FIRE AND FIRE-FIGHTING MEASURES

**Flash Point:** (Minimum) 100°F TCC (Mineral Spirits) ASTM D 3143

**Autoignition Temperature:** Greater than 400°F, ASTM E 659

**National Fire Protection Association (NFPA 704) - Hazard Identification:** Health - 1 Flammability - 2 Reactivity - 0

**Handling Precautions:** Keep containers tightly closed. Keep containers cool, dry, and away from sources of ignition. Use this product with adequate ventilation. Material is COMBUSTIBLE. Material requires electrical grounding during material transfer process. All electrical equipment in storage or handling areas should be installed per NFPA requirements.

**Flammable or Explosive Limits:** (Approximate percent by volume in air): Lower (LEL) 0.9% Upper (UEL) 6.7%

**Extinguishing Media and Fire Fighting Procedures:** Extinguish with dry chemical and CO<sub>2</sub>. Universal type foam and water fog are effective, but may cause frothing. DO NOT USE WATER. Petroleum-based compounds can float on water.

**Decomposition Products under Fire Conditions:** May form toxic materials, carbon dioxide and carbon monoxide, and nitrogen oxides.

**"Empty" Container Warning:** Dispose of in an environmentally safe manner and in accordance with governmental regulations. "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 regulation ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Steps to be taken if spilled or released:**

- Shut off and eliminate all ignition sources.
- Keep people away.
- Recover free product; add sand, earth, or other suitable absorbents.
- Minimize skin contact and breathing vapors.
- Ventilate confined spaces; open all windows and doors.
- Keep product out of sewers and water courses by diking or impounding.
- Advise authorities if product has entered or may enter sewers, water courses or extensive land areas.
- ASSURE CONFORMITY WITH APPLICABLE GOVERNMENTAL REGULATIONS.

## SECTION 7 - HANDLING AND STORAGE

**Handling and Storage Precautions:** Store in closed container. Keep product and vapor away from heat, sparks and flame. Do not store in direct sunlight. Prevent inhalation of vapor, ingestion, and contact with skin and eyes. Keep container closed when not in use. Vapor may migrate to sources of ignition. Do not smoke, weld, generate sparks, or use flame near container. Change soiled work clothes frequently. Clean hands thoroughly after handling. To prevent gases, vapors or fumes from migrating into occupied sections of the building, close or cover all openings including windows, doors, and air intakes during and after application until gases, vapors or fumes dissipate. Precautions also apply to emptied containers.

## SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Ventilation:** Use only with ventilation sufficient to prevent exceeding recommended exposure limit or build-up of explosive concentrations of vapor in air. Use explosion-proof equipment. No smoking or open lights.

**Respiratory Protection:** Use supplied air respiratory protection in confined or enclosed spaces, if needed.

**Protective Gloves:** Use chemical resistant gloves, if needed, to avoid prolonged or repeated skin contact.

**Eye Protection:** Use splash goggles or face shield when eye contact may occur.

**Other Protective Equipment:** Use chemical resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

**Work Practices/Engineering Controls:** Keep containers closed when not in use. DO NOT STORE NEAR HEAT, SPARKS, FLAME OR STRONG OXIDANTS. To prevent fire or explosion risk from static accumulations and discharge, effectively ground product transfer system in accordance with NFPA standard for petroleum products.

**Personal Hygiene:** Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry clean before reuse. Remove contaminated shoes and thoroughly clean and dry before reuse. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

**SECTION 9 - PHYSICAL DATA**

The following are approximate or typical values and should not be used for precise design purposes.

<b>Physical State:</b> Silvery liquid	<b>Odor:</b> Petroleum solvent
<b>Boiling Range:</b> 300°F IBP (ASTM D 86), Mineral Spirits	<b>Vapor Pressure:</b> Approximately 2.9 mm Hg @ 20°C, Mineral Spirits
<b>Specific Gravity:</b> Greater than 1.00	<b>Vapor Density:</b> Approximately 4.9 (air = 1.0), Mineral Spirits
<b>Molecular Weight:</b> N/A - complex mixture of hydrocarbons	<b>Percent Volatile by Volume:</b> Less than 40
<b>pH:</b> N/A	<b>Solubility in Water @ 1 ATM and 77°F:</b> Negligible, less than 0.1 (solvent portion)

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Stability:</b> _____ unstable <input checked="" type="checkbox"/> stable	<b>Hazardous Polymerization:</b> _____ may occur <input checked="" type="checkbox"/> will not occur
<b>Hazardous Decomposition Products:</b> Hazardous decomposition products include: carbon dioxide, carbon monoxide, and nitrogen oxides.	
<b>Incompatibility (Material to Avoid):</b> Avoid contact with strong oxidizing agents such as: liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.	
<b>Conditions to Avoid:</b> Keep from heat, sparks, open flame.	

**SECTION 11 - TOXICOLOGICAL INFORMATION (REFER TO SECTION 3)**

**Carcinogenicity:** The following table indicates whether or not each agency has listed the ingredients as a carcinogen:

Ingredient	ACGIH	IARC	NTP	OSHA
Extracts of steam and air refined bitumens (Mineral Spirits Cutback Asphalt)	No	Yes	No	No
Mineral Spirits	No	No	No	No
Hydrogen Sulfide	No	No	No	No
Petroleum Asphalt		<b>LD<sub>50</sub> Oral (g/kg)</b>	<b>LD<sub>50</sub> Dermal (g/kg)</b>	<b>LC<sub>50</sub> Inhalation (4 hours)</b>
		Not Available	Not Available	Not Available
Mineral Spirits		>5 (rat)	Not Available	>5.5 g/m <sup>3</sup> (rat)
Hydrogen Sulfide		Not Available	Not Available	444 ppm (rat)

**Petroleum Asphalt:** In March, 1987, the International Agency for Research on Cancer (IARC) classified extracts of steam and air refined bitumens (such as mineral spirits cutback asphalt) as possible carcinogenic to humans (Group 2B). This classification was based on a combined evaluation of published human and animal studies. IARC concluded that the human studies did not provide adequate evidence that extracts of steam and air refined bitumens caused cancer in humans. No epidemiological study of workers exposed only to bitumens is available. The 2B classification was substantially based on experimental animal studies. Some bitumens (asphalt) diluted, dissolved or liquified in solvents (e.g. cutback asphalt) have produced skin cancer in laboratory animals at the site of application. NIOSH recently conducted mouse skin painting studies using selected fractions of asphalt fume condensate. Skin application of the condensate fractions resulted in skin tumors in laboratory mice. Based on skin painting data, IARC regards it prudent to treat a material for which there is sufficient evidence of carcinogenicity in animals as if it is possibly carcinogenic in humans.

**SECTION 12 - ECOLOGICAL INFORMATION**

This material may cause harm to animals, plants, or fish.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

**Characteristic hazardous waste:** RCRA Class D001 - Ignitable Liquid or Solid Waste (RQ = 100.0 lbs.)    **EPA Reportable Quantities:** None

Disposal Method: Subject to hazardous waste treatment, storage and disposal requirements under RCRA. Incinerate at EPA-approved facility or dispose of in compliance with federal, state, and local regulations.

**SECTION 14 - TRANSPORTATION DATA**

**Transportation Incident Information:** For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Guidebook for Hazardous Materials Incidents, DOT P 5800.3.

<b>DOT Shipping Name(s):</b> Not Regulated	<b>Hazard Class or Division:</b> N/A
<b>UN/NA Number:</b> N/A	<b>DOT Label:</b> Hazardous
<b>Packing Group:</b> None	<b>Packaging Exceptions:</b> None
<b>Special Provisions:</b> N/A	<b>Bulk Packaging:</b> N/A
<b>Non-bulk Packaging:</b> N/A	<b>RQ:</b> 100 lbs.
<b>EPA Hazardous Substances:</b> Hydrogen Sulfide	<b>Marine Pollutants:</b> White Spirits (Mineral Spirits)
<b>Quantity Limitations:</b> N/A	<b>Hazardous Material Shipping Description:</b> Marine Pollutant (White Spirits)
<b>Freight Description:</b> Asphalt	<b>ERG Number:</b> N/A

## SECTION 15 - REGULATORY INFORMATION

**TSCA Status:** On TSCA Inventory

**NSR Status (Canada):** Each ingredient is on the DSL.

**OSHA Status:** N/A

<u>OSHA Hazardous Components</u>	<u>CAS Number</u>
Asphalt <sup>1</sup>	64742-93-4
Trimethylbenzenes (Mixed isomers)	25551-13-7
Stoddard Solvent (Mineral Spirits)	8052-41-3

<sup>1</sup> Chemical is listed as an IARC, NTP, OSHA or ACGIH Carcinogen

### SARA Title III:

Hazard Categories:

Acute Health: Yes  
 Chronic Health: Yes  
 Fire Hazard: Yes  
 Pressure Hazard: No  
 Reactivity Hazard: No

Reportable Ingredients:

Sec. 302/304: Hydrogen Sulfide

Sec. 313:

This information may be subject to the provisions of the Community Right-to-Know Reporting Requirements (40 CFR 370) if threshold quantity criteria are met.

**California Proposition 65:** This material contains detectable amounts of some chemicals known to the State of California to cause cancer, birth defects, or other reproductive effects.

**Clean Water Act/Oil Pollution Act:** This product has ingredient classified as an oil under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Act of 1990. Discharge or spills which produce a visible sheen on either surface water or in waterways/sewers which lead to surface water, must be reported to the National Response Center at: (800) 424-8802.

**CERCLA:** This product contains ingredients derived from a fraction of crude oil and is excluded from the spill reporting requirements by CERCLA Section 101 (14) (F). The petroleum exclusion for this product may terminate and an accidental spill may require reporting to the National Response Center at: (800) 424-8802.

This product contains approximately 0.3% of Xylene. The reportable quantity of Xylene is 100 pounds. This product contains approximately 0.2% of Cumene. The reportable quantity of Cumene is 5,000 pounds.

## SECTION 16 - OTHER INFORMATION

The information and recommendations contained herein are to the best of PALMER ASPHALT'S knowledge and belief, accurate, and reliable as of the date issued. PALMER ASPHALT does not warrant or guarantee their accuracy or reliability, and PALMER ASPHALT shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the users consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use.

The Environmental Information included under Section 12 hereof as well as the Hazardous Material Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by PALMER ASPHALT COMPANY in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with PALMER ASPHALT'S interpretation of the available data.

### For Other Product Information Contact:

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