

# MATERIAL SAFETY DATA SHEET

## COAL TAR ROOFING PITCH

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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**PRODUCT NAME:** COAL TAR ROOFING PITCH

**OTHER/GENERIC NAMES:** Roofing Pitch

**PRODUCT USE:** Commercial/Industrial Roofing

**MANUFACTURER:** Durapax LLC  
Commercial Roofing Systems  
400 Old Reading Pike, Suite 304  
Pottstown PA 19464

**FOR MORE INFORMATION CALL:**  
(Monday-Friday, 8:00am-4:30pm EST)  
1-610-579-9075

**IN CASE OF EMERGENCY CALL:**  
(24 Hours/Day, 7 Days/Week)  
1-610-579-9075  
Chemtrec 1-800-424-9300

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

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<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Coal Tar Pitch*	65996-93-2	100

\* Mixture of organic compounds, primarily 3 to 40 ringed polynuclear aromatic hydrocarbons, including some substituted compounds. It is estimated that as many as 4500+ compounds may be present.

Trace impurities and additional material names not listed above may also appear in Section 15 towards the end of the MSDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

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### 3. HAZARDS IDENTIFICATION

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**EMERGENCY OVERVIEW:** Vapor can cause moderate to severe irritation of eyes, nose, throat and respiratory tract. Can cause burning and itching with reddening of the skin, which is accentuated by sunlight. Burning may emit hazardous fumes, which can form flammable or explosive mixtures.

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#### POTENTIAL HEALTH HAZARDS

**SKIN:** Contact with skin can result in irritation, which when not washed off or when accentuated by sunlight, can result in minor burns. Contact with heated or molten material can cause severe thermal burns.

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**EYES:** Overexposure to product fumes, vapors or dust can result in irritation and burning. Eye contact with product will result in irritation, which in the absence of recommended first aid can result in effects ranging from minor burns to severe corneal injury, including keratitis, conjunctivitis and corneal abrasion. Contact with heated material may cause thermal burns.

**INHALATION:** Overexposure to fumes, vapor or dust may result in irritation to respiratory tract. Prolonged exposure in significant excess of permissible air concentrations can result in acute toxic effects, such as coughing, sneezing, headache, dizziness, respiratory difficulty and convulsions.

**INGESTION:** Irritation of the gastrointestinal tract followed by nausea and vomiting, abdominal discomfort, rapid pulse, etc.

**OTHER:** Individuals with chronic respiratory disorders, a history of central nervous system (CNS) functional illness or preexisting skin disorders may be more susceptible to the effects of exposure when working with this material.

**DELAYED EFFECTS:** Prolonged and repeated skin exposure over many months to years, in the absence of recommended hygiene practices, may lead to changes in skin pigmentation and benign skin growths. In some cases, skin cancer may occur after many years of exposure. These effects appear to be exacerbated by simultaneous exposure to ultraviolet light (sunlight). Long term exposure to coal tar pitch volatiles has been associated with the development of skin, kidney, bladder, scrotum and lung cancer.

Ingredients found on one of the OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
Coal Tar Pitch	Known Carcinogen	1 – Known	Carcinogen

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### 4. FIRST AID MEASURES

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**SKIN:** For contact with **MOLTEN** product, do not remove contaminated clothing. Immediately flush skin with large amounts of cold water. If possible, submerge area in cold water. Pack with ice and seek immediate medical attention. For other contact, remove contaminated clothing and wash thoroughly with waterless hand cleaners, olive oil or nonabrasive soap and water. Avoid solvents.

**EYES:** Flush eyes immediately with large amounts of water or olive oil for at least 15 minutes. Call a physician.

**INHALATION:** Remove immediately to fresh air. If not breathing, give artificial respiration; preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

**INGESTION:** If conscious, first induce vomiting, then take 2 tablespoons of activated charcoal (USP-drug grade) in water. Do not give anything by mouth to an unconscious person. Get immediate medical attention.

**ADVICE TO PHYSICIAN:** None

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### 5. FIRE FIGHTING MEASURES

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#### FLAMMABLE PROPERTIES

**FLASH POINT:** 190 °C (374 °F) [minimum]

**FLASH POINT METHOD:** Pensky-Martens Closed Cup

**AUTOIGNITION TEMPERATURE:** >399 °C (750 °F)

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**UPPER FLAME LIMIT (volume % in air):** Not Determined  
**LOWER FLAME LIMIT (volume % in air):** Not Determined  
**FLAME PROPAGATION RATE (solids):** Not Applicable  
**OSHA FLAMMABILITY CLASS:** Not Determined

**EXTINGUISHING MEDIA:** Water fog, carbon dioxide, foam, dry chemicals, sand or steam

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Sensitive to static discharge. Burning may emit hazardous fumes/vapors which may be in concentrations greater than PEL/TLV's. Coal tar pitch at elevated temperatures may generate vapors that can form flammable/explosive mixtures in the presence of air and a source of ignition. Airborne pitch dust may form explosive mixtures with air. Cloud ignition temperature is 710 °C (1310 °F) minimum. Explosive concentration (dust) is 0.035 ounces/ft<sup>3</sup> (1000 mg/0.03m<sup>3</sup>). Closed containers may explode when exposed to extreme heat. Liquid (molten) pitch at elevated temperatures will sustain combustion.

**SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:** Wear complete fire service protection equipment, including full-face NIOSH/MSHA approved self-contained breathing apparatus. Use water or water spray to cool fire-exposed containers and structures and to protect personnel. Water/fog can control unconfined pitch fires, but may cause frothing or eruption in closed tanks.

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## 6. ACCIDENTAL RELEASE MEASURES

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**IN CASE OF SPILL OR OTHER RELEASE:** (Always wear recommended personal protective equipment.)

Avoid breathing vapors and contact with skin and eyes. Avoid contact with hot liquid/fumes/vapors. Avoid sources of ignition (sparks or open flame). Try to stop the source of the leak, if possible, without hazard. Ventilate the area if spill occurs indoors. If hot liquid is spilled, contain by diking/berming with absorbent solids, such as sand, earth, or other inert material. Use of water spray will aid in solidifying molten material and minimize vapor emissions. Release or spillage of solid pitch can be managed as a coal spillage and recovery made avoiding skin and eye contact. Shovel material into dry, labeled containers and secure cover. Contain runoff of fire control water. Do not allow to enter into sewers, waterways or open bodies of water.

Provide cleanup personnel with appropriate protective clothing. Contaminated materials may need to be handled and managed as RCRA Hazardous Waste and treated before disposal in approved facilities (see Section 13). In cases involving release to the environment in the U.S., report releases to Federal, State and Local authorities, as required. Due to the concentration of Benzo(a)pyrene in coal tar pitch and a reportable quantity (RQ) of one (1) pound for this compound, CERCLA (Superfund) release of approximately 18 gallons (200 pounds) of coal tar pitch requires National Response Center notification.

**Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.**

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## 7. HANDLING AND STORAGE

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**NORMAL HANDLING:** (Always wear recommended personal protective equipment.)

Avoid prolonged and repeated contact with skin or breathing of dust/fumes/vapors. Avoid creating aerosols. Avoid contact with molten materials. Wear clothing closed at the neck, long sleeves and cotton, leather or non-porous type gloves, [e.g. neoprene, butyl rubber, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)].

### **STORAGE RECOMMENDATIONS:**

Recommended temperature for storage is 50 °C (122 °F) above the softening point.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use in areas with adequate natural ventilation or provide sufficient general/local exhaust ventilation in pattern/volume to maintain concentrations below the recommended PEL/TLV and to maintain areas below flammable vapor or explosive dust concentrations.

#### PERSONAL PROTECTIVE EQUIPMENT

**SKIN PROTECTION:** Avoid skin contact, whenever possible by using gloves. For exposed skin, use protective creams (for example; MSA's Fend AE-2, Kerodex 51, Jergens SBS-46). Protect exposed skin from direct sunlight. For outdoor work use approved waterproof sunscreens with a SPF 25 or greater; reapply every 90 minutes while in direct sun.

**EYE PROTECTION:** Safety glasses (with side shields), goggles and/or face shield. Chemical splash goggles or face shield are highly recommended when handling molten material. Do not wear contact lenses when handling this material.

**RESPIRATORY PROTECTION:** Use a NIOSH/MSHA approved respirator with suitable cartridge (organic vapor/high efficiency particulate air filter) as necessary to control exposures to levels below the TLV or PEL. Not required for properly ventilated areas.

**ADDITIONAL RECOMMENDATIONS:** Work clothing should be laundered separately from other household clothing. Wash exposed areas thoroughly before eating, drinking, using tobacco products or using a restroom. It is recommended that a complete soap and water shower and/or steam bath be taken at the end of each working day.

#### EXPOSURE GUIDELINES

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER LIMIT</u>
Coal Tar Pitch Volatiles, CTPV	0.2mg/m <sup>3</sup>	0.2mg/m <sup>3</sup>	- - -

\* = Workplace Environmental Exposure Level (AIHA).

\*\* = Biological Exposure Index (ACGIH).

**OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:** None

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL STATE:</b>	Black solid (at 70 °F) or black viscous liquid
<b>MOLECULAR WEIGHT:</b>	700 – 900
<b>CHEMICAL FORMULA:</b>	Mixture of organic compounds
<b>ODOR:</b>	Aromatic
<b>SPECIFIC GRAVITY (water = 1.0):</b>	1.3 ± 0.04 @ 15.5 °C (60 °F)
<b>SOLUBILITY IN WATER (weight %):</b>	Negligible
<b>pH:</b>	Not Applicable
<b>BOILING POINT:</b>	>240 °C (464 °F)
<b>MELTING POINT:</b>	41 – 64 °C (106 – 147 °F)
<b>VAPOR PRESSURE:</b>	None at 20 °C (68 °F)
<b>VAPOR DENSITY (air = 1.0):</b>	>1
<b>EVAPORATION RATE:</b>	<1
<b>% VOLATILES:</b>	Not Determined
<b>FLASH POINT:</b>	190 °C (374 °F) [minimum]

**COMPARED TO:** Butyl Acetate = 1

(Flash point method and additional flammability data are found in Section 5.)

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### **10. STABILITY AND REACTIVITY**

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**NORMALLY STABLE? (CONDITIONS TO AVOID):** Product stable under normal conditions. Avoid loading or unloading near open flame.

**INCOMPATIBILITIES:** Avoid contact with water when confined and in a molten state. Avoid contact with strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose under normal conditions of use. Upon excessive heating or burning, the material decomposes, and may emit hazardous fumes/vapors of lower molecular weight compounds, CO<sub>2</sub>, CO, NO<sub>x</sub>, and SO<sub>2</sub>.

**HAZARDOUS POLYMERIZATION:** Will not occur.

### **11. TOXICOLOGICAL INFORMATION**

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**IMMEDIATE (ACUTE) EFFECTS:** Refer to Section 3.

**DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:** Long term exposure to Coal Tar Pitch Volatiles (CTPV), above the recommended exposure limit, has been associated with the development of skin, kidney, lung, bladder, and scrotum cancer.

**OTHER DATA:** IARC Group 1 – Sufficient evidence of carcinogenicity in humans. No scientific study supports an association between coal tar pitch exposure and human reproductive hazards. Available data characterizes coal tar pitch as a mutagen.

### **12. ECOLOGICAL INFORMATION**

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Not determined.

### **13. DISPOSAL CONSIDERATIONS**

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#### **RCRA**

**Is the unused product a RCRA hazardous waste if discarded?** NO

**If yes, the RCRA ID number is:** Not Applicable

#### **OTHER DISPOSAL CONSIDERATIONS:**

In the U.S., dispose of the material as required by applicable federal, state and local regulations. In Canada, dispose of the material in accordance with provincial regulations.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

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### 14. TRANSPORT INFORMATION

**SOLID:**

**US DOT HAZARD CLASS:** UN 3077

**US DOT ID NUMBER:** RQ, Environmentally Hazardous Substance, Solid, N.O.S., (Benzo(a)pyrene, Dibenz(a,h)anthracene), 9, UN 3077, III

RQ, Other Regulated Substance, Solid, N.O.S., (Benzo(a)pyrene, Dibenz(a,h)anthracene), 9, NA 3077, III

For Domestic Shipments: either shipping name

For Marine Shipments: Use UN 3077, Environmentally Hazardous Substance shipping name

**LIQUID (Transported above flash point):**

**US DOT HAZARD CLASS:** UN 3256

**US DOT ID NUMBER:** RQ, Elevated Temperature Liquid, Flammable, N.O.S., (Benzo(a)pyrene, Dibenz(a,h)anthracene), 3, UN 3256, III

**LIQUID (Transported below flash point):**

**US DOT HAZARD CLASS:** UN 3257

**US DOT ID NUMBER:** RQ, Elevated Temperature Liquid, Flammable, N.O.S., (Benzo(a)pyrene, Dibenz(a,h)anthracene), 9, UN 3257, III

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

### 15. REGULATORY INFORMATION

#### TOXIC SUBSTANCES CONTROL ACT (TSCA)

**TSCA INVENTORY STATUS:** Listed on EPA's TSCA Inventory

**OTHER TSCA ISSUES:** Substance of unknown or variable composition

#### SARA TITLE III/CERCLA

The following substances are considered hazardous by one or more regulatory agencies and were identified in "typical" coal tar pitch samples at concentrations greater than 0.01 percent by weight.

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<u>INGREDIENT NAME</u>	<u>CAS #</u>	<u>SARA/CERCLA RQ (lb)</u>	<u>SARA EHS TPQ (lb)</u>
Acenaphthene	83-32-9	100	
Anthracene	120-12-7	5000	
Benzo(a)anthracene	56-55-3	10	
Benzo(c)acridine	225-51-4	100	
Benzo(b)fluoranthene	205-99-2	1	
Benzo(k)fluoranthene	207-08-9	5000	
Benzo(j)fluoranthene	205-82-3	---	
Benzo(g,h,i)perylene	191-24-2	5000	
Benzo(a)pyrene	50-32-8	1	
Benzo(e)pyrene	192-97-2	---	
Chrysene	218-01-9	100	

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Dibenz(a,h)anthracene	53-70-3	1	
Dibenzofuran	132-64-9	100	
Fluoranthene	206-44-0	100	
Fluorene	86-73-7	5000	
Indeno(1,2,3-cd)pyrene	193-39-5	100	
2-Methylnaphthalene	91-57-6	- - -	
Naphthalene	91-20-3	100	
Phenanthrene	85-01-8	5000	
Pyrene	129-00-0	5000	1000/10,000*

\* See 40 CFR 355.30(2)(i)

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

**SECTION 311 HAZARD CLASS:** Immediate, Delayed, Fire

### **SARA 313 TOXIC CHEMICALS:**

The following ingredients are SARA 313 "Toxic Chemicals". Also see Section 2.

### INGREDIENT NAME

### CAS #

### **WEIGHT %**

*Benzo(a)anthracene	56-55-3	0.7
*Benzo(a)pyrene	50-32-8	0.4
*Benzo(b)fluoranthene	205-99-2	0.8 (includes (k))
*Benzo(k)fluoranthene	207-08-9	included above
*Benzo(j)fluoranthene	205-82-3	0.2
*Benzo(g,h,i)perylene	191-24-2	0.2
*Chrysene	218-01-9	0.2
*Indeno(1,2,3-cd)pyrene	193-39-5	0.2
Phenanthrene	85-01-8	1.8
Polycyclic Aromatic Compounds (20 compounds)	-	3.2

\* Also included in "polycyclic aromatic compound" category

### STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

### INGREDIENT NAME

### WEIGHT % COMMENT

No ingredients listed in this section

**ADDITIONAL REGULATORY INFORMATION:** California Proposition 65 material - Contains chemicals known to the State of California to cause cancer, birth defects, & other reproductive harm.

**WHMIS CLASSIFICATION (CANADA):** Class D, Division 2, Subdivision A  
Class D, Division 2, Subdivision B

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

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**FOREIGN INVENTORY STATUS:** Listed on the EINECS Inventory – ID# 2660282  
Listed on Canadian Inventory Domestic Substance List (DSL)

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### **16. OTHER INFORMATION**

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**CURRENT ISSUE DATE:** April 2005  
**PREVIOUS ISSUE DATE:**

**CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:**  
**None**