

## 300/400LA Pen Asphalt

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	300/400LA Pen Asphalt
<b>Other Means of Identification</b>	Henry - 300/400LA Pen Asphalt
<b>Recommended Use</b>	Mainly used for road paving, roofing, Miscellaneous industrial applications.
<b>Restrictions on Use</b>	None known.
<b>Manufacturer/Supplier Identifier</b>	McAsphalt Industries Ltd, 8800 Sheppard Ave East, Toronto, Ontario, M1B 5R4, 416-281-8181
<b>Emergency Phone No.</b>	CANUTEC, (613) 996 - 6666, 24 hours McAsphalt Industries Ltd., 1 - (800) - 268 - 4238, 8AM-5PM Monday to Friday

### SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).

**Classification**

Acute toxicity (Inhalation) - Category 4; Carcinogenicity - Category 2

**Label Elements**



**Warning**

Harmful if swallowed, in contact with skin or if inhaled.

Avoid breathing dust/fume/gas/mist/vapours/spray.

For hot asphalt splash, cool affected body part with water immersion or shower. Do not attempt to remove asphalt from the skin. Natural separation will occur in about 48-72 hours.

IF exposed or concerned: Get medical advice or attention.

**Other Hazards**

At higher concentrations of H<sub>2</sub>S (above 10 ppm), inhalation may become extremely toxic and may cause respiratory-tract irritation and respiratory failure, coma or death. Pulmonary edema can occur up to 24 hours after hydrogen sulphide exposure. While hydrogen sulphide emits a strong odour of rotten eggs, detection by smell is not sufficient as a warning property for exposure to this substance, as it may deaden the sense of smell quickly.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Asphalt (Bitumen)	8052-42-4	100		Asphalt

**Notes**

During storage or transit of hot asphalt, hydrogen sulphide may be generated.

## SECTION 4. FIRST-AID MEASURES

### First-aid Measures

#### Inhalation

Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Loosen tight clothing such as collar, tie, belt or waist band. Get medical attention immediately. If breathing has stopped, trained personnel should begin rescue breathing.

#### Skin Contact

For hot asphalt splash, cool affected body part with water immersion or shower. Do not attempt to remove asphalt from the skin. Once the bitumen has cooled, it will do no further harm and in fact provide a sterile covering over a burnt area. As healing takes place, the bitumen plaque, the bitumen plaque will detach itself, usually after a few days. For skin soiling without underlying burn, cleanse with mineral oil followed by soap and water. Use olive oil in vicinity of eyes.

#### Eye Contact

If a contact lens is present, DO NOT delay flushing or attempt to remove the lens. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open.

#### Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting.

### Most Important Symptoms and Effects, Acute and Delayed

If on skin: may cause mild irritation. May cause moderate to severe irritation.

The vapour also irritates the eyes. Symptoms include sore, red eyes, and tearing.

At higher concentrations (above 10 ppm), hydrogen sulphide is extremely toxic by inhalation, may cause respiratory-tract irritation and respiratory failure, coma and death. Pulmonary edema can occur up to 24 hours after hydrogen sulphide exposure. While hydrogen sulphide emits a strong odour of rotten eggs, detection by smell is not sufficient as a warning property for exposure to this substance, as it may deaden the sense of smell quickly.

### Immediate Medical Attention and Special Treatment

#### Special Instructions

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

#### Medical Conditions Aggravated by Exposure

Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated skin exposure can produce local skin destruction or dermatitis see toxicological information (Section 11).

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Not combustible. Use extinguishing agents compatible with product and suitable for surrounding fire. Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

#### Unsuitable Extinguishing Media

Do not spray water onto tank, vessel containing liquid asphalt as water reacts violently with product at elevated temperatures; risk of steam explosion.

### Specific Hazards Arising from the Product

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Low fire hazard. This material must be heated before ignition will occur. Hydrogen sulphide may be released if the product is overheated and may accumulate in the tank headspace or any other confined space.

Carbon oxides (CO, CO<sub>2</sub>), smoke and irritating vapours as products of incomplete combustion. Hydrogen sulphide, smoke, fume, aldehydes, sulphur oxides, incomplete combustion products, oxides of carbon.

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## Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Dike and recover contaminated water for appropriate disposal. Use water spray to dilute spills to non-flammable mixtures.

Fire-fighters should enter area wearing specialized protective equipment. (Bunker Gear will not provide adequate protection.) chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and Materials for Containment and Cleaning Up

Small spills or leaks: stop or reduce leak if safe to do so. Ventilate the area to prevent the gas from accumulating, especially in confined spaces. Contain and soak up spill with absorbent that does not react with spilled product. Do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. Do NOT use combustible materials such as sawdust. Cover the spill surface with the appropriate type of foam to reduce the release of vapour. Place used absorbent into suitable, covered, labelled containers for disposal. Contaminated absorbent poses the same hazard as the spilled product. Large spills or leaks: dike spilled product to prevent runoff. Knock down gas with fog or fine water spray. Do not direct water at spill or source. Dike and recover contaminated water for appropriate disposal. Let product solidify. Avoid generating dust. Avoid dry sweeping. If necessary, use a dust suppressant such as water. Do not use compressed air for clean-up. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. If possible, turn leaking container so that gas escapes rather than liquefied gas. Do not return spilled product to its original container. Store recovered product in suitable containers that are: review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid contact with skin, eyes and clothing. Avoid breathing fumes, gas, or vapours. Use only with adequate ventilation. Wash thoroughly after handling and wear appropriate personal protective equipment. Harmful concentrations of hydrogen sulfide (H<sub>2</sub>S) gas can accumulate in low-lying areas as well as the vapour space of storage and bulk transport compartments. Stay upwind and vent open hatches before unloading.

### Conditions for Safe Storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Asphalt (Bitumen)	0.5 mg/m <sup>3</sup> (l) A4 BEI		Not established			

(asphalt bitumen) fume, as benzene soluble aerosol (H<sub>2</sub>S) consult local authorities for acceptable exposure limits.

### Appropriate Engineering Controls

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General ventilation is usually adequate. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

#### Individual Protection Measures

##### Eye/Face Protection

Wear safety glasses; chemical goggles (if splashing is possible). Wear chemical goggles; face shield (if handling molten material).

##### Skin Protection

Wear chemical protective clothing e.g. gloves, long sleeves, boots.  
Suitable materials are: Leather or Aluminize Gloves.

##### Respiratory Protection

If a risk assessment indicates that it is necessary (i.e. H<sub>2</sub>S concentration is above 10ppm exposure limit), use a properly fitted, air-purifying or air-fed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: organic vapour filter cartridge or canister with a dust, fume or mist filter (R, or P series) may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	Dark black Semi-solid.
<b>Odour</b>	Characteristic asphaltic odour or "rotten egg" odour if H <sub>2</sub> S present, but odour is an unreliable warning, since it may deaden the sense of smell.
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Melting Point/Freezing Point</b>	Not available (melting); Not available (freezing)
<b>Initial Boiling Point/Range</b>	Not available
<b>Flash Point</b>	298 °C (568 °F) (open cup)
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	1.027 at 15 °C (59 °F)
<b>Solubility</b>	Insoluble in water; Soluble in all proportions in common organic solvents.
<b>Partition Coefficient, n-Octanol/Water (Log K<sub>ow</sub>)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic)
<b>Other Information</b>	
<b>Physical State</b>	Liquid
<b>Bulk Density</b>	Not available

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

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## Chemical Stability

Normally stable.

## Possibility of Hazardous Reactions

Contact between heated Asphalt and water can cause a violent eruption. Can react with strong oxidizing agents, peroxides, acids and alkalies.

## Conditions to Avoid

Under normal conditions of storage and use, hazardous polymerisation will not occur. Will violently react to water/moisture i.e., steam expansion.

## Incompatible Materials

Reactive with oxidizing agents.

## Hazardous Decomposition Products

May release CO<sub>x</sub>, NO<sub>x</sub>, SO<sub>x</sub>, PO<sub>x</sub>, H<sub>2</sub>S, hydrocarbons, smoke and irritating vapours when heated to decomposition.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

See toxicological information (Section 11) skin contact; eye contact; inhalation.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Asphalt (Bitumen)	> 94.4 mg/m <sup>3</sup> (rat)	> 5000 mg/kg (rat)	> 2000 mg/kg (rabbit)

### Skin Corrosion/Irritation

May cause mild irritation to skin. Signs/symptoms may include localized redness, swelling, and itching. Hot liquid product may cause serious thermal burns on direct contact. Asphalt fumes can increase susceptibility to sunburn.

### Serious Eye Damage/Irritation

May cause mild irritation to eyes. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Hot liquid product may cause serious thermal burns on direct contact. Hydrogen sulphide may cause eye irritation at 1 - 20 ppm and acute conjunctivitis at higher concentrations. Above 50 ppm H<sub>2</sub>S, eye irritation may include symptoms of redness, severe swelling, tearing, sensitivity to light and the appearance of 'Halos' around lights.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

At higher concentrations of H<sub>2</sub>S (above 10 ppm), hydrogen sulphide is extremely toxic by inhalation, may cause respiratory-tract irritation, nose and throat irritation, depression of the central nervous system, respiratory failure, unconsciousness and/or death. Pulmonary edema can occur up to 24 hours after hydrogen sulphide exposure. While hydrogen sulphide emits a strong odour of rotten eggs, detection by smell is not sufficient as a warning property for exposure to this substance, as it may deaden the sense of smell quickly.

#### Skin Absorption

Thermal burns from heat.

#### Ingestion

May cause severe irritation or burns to the mouth, throat and stomach.

### Aspiration Hazard

Not known to be an aspiration hazard.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

Prolonged or repeated contact may dry skin and cause irritation. This product contains small quantities of Polycyclic aromatic hydrocarbons. Prolonged contact with these compounds has been associated with the induction of skin and lung tumours, anemia, disorders of the liver, bone marrow and lymphoid tissues. Long term inhalation of Benzene or Xylene vapours can result in bone marrow abnormalities with damage to blood forming tissues and may cause anemia and other blood cell abnormalities. Immunodepressive effects have also been reported. Hydrogen sulphide may reduce lung function; cause neurological effects such as headaches, nausea, depression and personality changes; eye and mucous membrane irritation: damage to cardiovascular system.

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No known significant effects or critical hazards.

#### **Respiratory and/or Skin Sensitization**

Not available.

#### **Carcinogenicity**

<b>Chemical Name</b>	<b>IARC</b>	<b>ACGIH®</b>	<b>NTP</b>	<b>OSHA</b>
Asphalt (Bitumen)	Group 2B	A4		

IARC: The International Agency for Research on Cancer (IARC) has determined that occupational exposures to oxide asphalt and their emissions during roofing operations are "probably carcinogenic to humans" (Group A). IARC concluded that occupational exposures to hard asphalts and their emissions during mastic asphalt work are "possibly carcinogenic to humans" (Group 2B). IARC concluded that occupational exposure to straight-run asphalts and their emissions during paving operations are "possibly carcinogenic to humans" (Group 2B).

An IARC working group has concluded that occupational exposures to straight-run bitumens and their emissions during road paving are 'possibly carcinogenic to humans' (Group 2B).

#### **Reproductive Toxicity**

##### **Development of Offspring**

Not available.

No known significant effects or critical hazards.

##### **Sexual Function and Fertility**

Not available.

No known significant effects or critical hazards.

##### **Effects on or via Lactation**

Not known to cause effects on or via lactation.

#### **Germ Cell Mutagenicity**

Not available.

No known significant effects or critical hazards.

#### **Interactive Effects**

Not available.

No information was located for: STOT (Specific Target Organ Toxicity) - Single Exposure, Interactive Effects

## **SECTION 12. ECOLOGICAL INFORMATION**

The information given is based on data available for the material, the components of the material, and similar materials.

#### **Ecotoxicity**

Marine Pollutant.

#### **Persistence and Degradability**

Not available.

#### **Bioaccumulative Potential**

No information was located.

#### **Mobility in Soil**

Majority of components - Low water solubility, expected to sink and migrate into the sediment. Expected to partition to sediment and wastewater solids.

#### **Other Adverse Effects**

There is no information available.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **Disposal Methods**

This product is a non-hazardous waste. Recycle and reuse product, if possible. Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user. Treat waste in an approved

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waste disposal facility. Store product for disposal as described under Storage in Section 7 of this safety data sheet. Empty containers retain product residue. Follow label warnings even if container appears to be empty. Do not reuse empty containers. Dispose of or recycle empty containers through an approved waste management facility.

## SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	3257	Penetration Graded Liquid Asphalt (Elevated Temperature Liquid, n.o.s., at or above 100 c and below its flashpoint)	9	III

**Special Precautions** Please note: For US Shipments Only: ELEVATED TEMPERATURE LIQUID, N.O.S., at or above 100 c and below its flash point, 9, UN3257, PGIII PG\* : Packing group

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### Canada

##### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

#### USA

##### Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

##### Additional USA Regulatory Lists

HCS Classification : Not regulated.

#### Europe inventory

Not determined

## SECTION 16. OTHER INFORMATION

**NFPA Rating**                      **Health - 1    Flammability - 1    Instability - 0**

**SDS Prepared By**                EPC & Risk Management Department

**Phone No.**                        1 (416) - 281 - 8181

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**Revision Indicators**        The following SDS content was changed on March 08, 2019:  
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.

**Key to Abbreviations**        ACGIH® = American Conference of Governmental Industrial Hygienists  
AIHA® = AIHA® Guideline Foundation    HSDB® = Hazardous Substances Data Bank  
IARC = International Agency for Research on Cancer  
NFPA = National Fire Protection Association    NIOSH = National Institute for Occupational Safety and Health  
OSHA = US Occupational Safety and Health Administration  
RTECS® = Registry of Toxic Effects of Chemical Substances

**References**                      CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).  
HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health

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and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer**

To the best of our knowledge, the information herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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