ASPHALT KINGDOM

Safety Data Sheet
Asphalt Bricks

SECTION 1. IDENTIFICATION

Product Identifier	Asphalt Bricks
Other Means of Identification	Pre-formed asphalt blocks, bituminous concrete bricks
Recommended Use	Asphalt Bricks are supplied as solid pre-formed blocks intended for reheating and use in pavement patching and asphalt paving applications.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	1197 Union St., Kitchener, ON N2H6N6
Emergency Phone No.	1-800-897-7987

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 inhaled. May cause cancer through inhalation of asphalt fumes or respirable dust during cutting or reheating. Avoid breathing dust, fume, gas, mist, vapours, or 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 hydrogen sulphide (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	99-100		Asphalt

Notes

Antistripping additive added in quantities < 1% when indicated. Heated product may evolve vapours irritating to the nose, throat and lungs. See section 8 for further information.
During storage or transit of hot asphalt, hydrogen sulphide may be generated. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. The composition and percentages listed will vary based on the product type.

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.

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.

First-aid Comments

If exposed or concerned, get medical advice or attention. Some of the first-aid procedures recommended here require advanced first-aid training.

Most Important Symptoms and Effects, Acute and Delayed

At higher concentrations (above 10 ppm), hydrogen sulphide is extremely toxic by inhalation and may cause respiratory-tract irritation, 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, as it may deaden the sense of smell quickly. Repeated or prolonged contact may irritate the skin. Heated product can cause thermal burns..

Immediate Medical Attention and Special

Treatment

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

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agents compatible with product and suitable for surrounding fire.

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

Flammability of the product: Will burn on prolonged exposure to flame or high temperature.
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, CO2), smoke and irritating vapours as products of incomplete combustion.

Special Protective Equipment and Precautions for Fire-fighters

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 ventillation. Wear apporpriate respirator when ventillation is inadequate.
Put on apporpriate 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

Allow spilled heated material to cool and solidify. Pick up mechanically. Dispose of according to local regulations. Do not return spilled material to original containers for reuse.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

During storage, reheating, or cutting of Asphalt Bricks, vapours and hydrogen sulphide may accumulate in enclosed spaces. Ensure good ventilation. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Avoid contact with eyes, skin, and clothing. Avoid breathing vapours, fumes, or dust. Do not ingest.

Conditions for Safe Storage

Store in a cool, dry, temperature-controlled area. Keep product away from sources of heat and ignition until intended for use. Prevent rainwater and ground water from reaching storage area. Protect product from contact with water, including humidity.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	**TWA**	**STEL**	**TWA**	**Ceiling**	**8-hr TWA**	**TWA**
Asphalt (Bitumen)	0.5 mg/m3 (I) A4 BEI		Not established			

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value.
TWA = Time-Weighted Average. STEL = Short-term Exposure Limit.

Appropriate Engineering Controls

General ventilation is usually adequate. Local exhaust ventilation may be required where dust, fumes, or vapours are generated during reheating.

Individual Protection

Measures Eye/Face

Protection

Safety glasses with side shields or goggles should be used when there is a risk of dust, fumes, or hot material splashes.

Skin Protection

Wear chemical protective clothing e.g. gloves, long sleeves, boots.

Respiratory Protection

If a risk assessment indicates that exposure may exceed limits, use a properly fitted, air-purifying or air-fed respirator approved to relevant standards. Use organic vapour filter cartridges or canisters with dust, fume, or mist filters..

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Solid, dark black pre-formed brick, Dsark black Semi-solid.
Odour	Characteristic asphaltic odour; rotten egg odour if H_2S is present (not a reliable warning property).
Odour Threshold	Not available
Physical State:	Solid (becomes semi-solid or liquid when reheated)
pH	Not available
Melting Point/Freezing Point	Not available (melting); Not available (freezing) Softening when heated
Initial Boiling Point/Range	Not available
Flash Point	> 290 ºC (554 ºF) (open cup)
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water; Soluble in all proportions in common organic solvents.
Partition Coefficient,	
n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Stable under normal storage conditions.

Possibility of Hazardous Reactions

Contact between heated Asphalt and water can cause a violent eruption.

Conditions to Avoid

Avoid overheating, open flames, and sources of ignition. Prevent contact with water when hot.

Incompatible Materials

Reactive with oxidizing agents.

Hazardous Decomposition Products

May release COx, NOx, SOx, POx, H2S, hydrocarbons, smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation of dust/fumes, skin contact, eye contact, ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Asphalt (Bitumen)	> 94.4 mg/m3 (rat)	> 5000 mg/kg (rat)	> 2000 mg/kg (rabbit)

Skin Corrosion/Irritation

May cause irritation. Hot material may cause thermal burns.

Serious Eye Damage/Irritation

May cause irritation; hot material can cause severe burns.

STOT (Specific Target Organ Toxicity) - Single

Exposure Inhalation

At higher concentrations of H2S (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

May cause Thermal burns from heat skin to darken.

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 turmours, 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 amd mucos membrane irritation: damage to cardiovascular system.
No known significant effects or critical hazards.

Respiratory and/or Skin Sensitization

Skin irritation, the symptoms may include redness and itching and swelling it may irritate the respiratory system.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Asphalt (Bitumen)	Group 2B	A4		

The International Agency for Research on Canacer (IARC) has determined that occupational exposures to oxide asphalt amd 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.
No information was located for: STOT (Specific Target Organ Toxicity) - Single Exposure, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

Environmental affects: No known significant effects or critical hazards. Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable under Federal and Provincial regulations. The information given is based on data available for the material, the components of the material, and similar materials.

Ecotoxicity

Studies were not located.

Persistence and

Degradability Not available.

Bioaccumulative Potential

No information was located.

Mobility in Soil

Studies are not available.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods. Reuse or recycle product if possible. Dispose of waste material in an approved facility. Do not reuse empty containers..

SECTION 14. TRANSPORT INFORMATION

TDG (Canada)

Not regulated under Canadian TDG regulations when shipped as solid Asphalt Bricks.

DOT (USA)

Not regulated in solid form. Heated product may be regulated as Elevated Temperature Material (UN3257).

Special Precautions Avoid shipping heated product in closed containers without proper elevated temperature classification

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.

Europe inventory

Not determined

SECTION 16. OTHER INFORMATION

NFPA Rating	**Health - Not assigned. Flammability - 1 Instability - 0**
SDS Prepared By	Heat Design Equipment Inc.
Phone No.	1 (888)-897-7987
Date of Preparation	August 15, 2024
Date of Last Revision	August 15, 2024
Revision Indicators	
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 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).
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