

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** DuraPhalt™, DuraPhalt™ HM, DuraWay™, DuraTough™, DuraPlay™, DuraTint™, DuraWhisper™, DuraCycle™, DuraClime™, HMA, Hot Mix Asphalt Concrete (HMAC), Blacktop, Tarmac, Hot Mix Paving Material, Hot Laid Asphaltic Cement, Bituminous Concrete, SuperPave Mixes, Dense Friction Course (DFC), Heavy Duty Binder Course (HDBC), Medium Duty Binder Course, (MDBC), Open Friction Course (OFC), Stone Matrix Asphalt (SMA).

**Synonyms:** Hot Mix Asphalt (HMA)

**Note:** This SDS covers many types of HMA. Individual composition of hazardous constituents will vary between types of asphalt.

### 1.2. Intended Use of the Product

HMA is used for paving roads, driveways, parking lots and other surface, base, or sub-base applications.

### 1.3. Name, Address, and Telephone of the Responsible Party

**Company** – Lafarge Canada

Western Canada  
#300 115 Quarry Park Road SE  
Calgary, AB T2C 5G9  
Phone: (403) 225-5400

Eastern Canada  
6509 Airport Road  
Mississauga, ON L4V 1S7  
Phone: (905) 738-7070

Website: [www.lafarge.ca](http://www.lafarge.ca)

### 1.4. Emergency Telephone Number

**Emergency Number** : ChemTel® 1-800-255-3924 (24 hours)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**GHS-US/CA Classification**

Carc. 1A                      H350  
STOT RE 1                    H372

Full text of hazard classes and H-statements : see Section 16.

### 2.2. Label Elements

**GHS-US/CA Labeling**

**Hazard Pictograms (GHS-US/CA)** :



**Signal Word (GHS-US/CA)** :

Danger

**Hazard Statements (GHS-US/CA)** :

H350 - May cause cancer.  
H372 - Causes damage to organs through prolonged or repeated exposure.

**Precautionary Statements (GHS-US/CA)** :

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe dust, vapors, fumes, gas, spray, mist.  
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves, protective clothing, and eye protection.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P314 - Get medical advice/attention if you feel unwell.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with local, regional, national, provincial and international regulations.

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### 2.3. Other Hazards

Exposure may aggravate individuals with pre-existing skin, kidney, liver, and pulmonary disorders. Asphalt may contain trace quantities of benzene (< 0.1%). Elevated temperature conditions may emit hydrogen sulfide, an asphalt decomposition product. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and should not be used as an indicator for the presence of gas. Risk of thermal burns on contact with molten product. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and should not be used as an indicator for the presence of gas.

### 2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Aggregates / Aggregates blend (Crushed stone / Sand / Gravel / Slag)	(CAS-No.) Not applicable	50 - 100	Not classified
Carbonic acid, magnesium salt (1:1)	(CAS-No.) 546-93-0	<= 50	Not classified
Quartz	(CAS-No.) 14808-60-7	<= 15	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Asphalt	(CAS-No.) 8052-42-4	< 10	Carc. 2, H351
Hydrogen sulfide	(CAS-No.) 7783-06-4	**	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Acute Tox. 2 (Inhalation:gas), H330 Eye Irrit. 2A, H319 STOT SE 3, H335 STOT SE 1, H370 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see Section 16.

\*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

\*\* May be formed during processing.

### 4.1. Description of First-aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

**Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** May cause cancer. Causes damage to organs through prolonged or repeated exposure. Health effects from silica exposures include: silicosis, a disabling, non-reversible and sometimes fatal lung disease; other non-malignant respiratory diseases, such as chronic bronchitis; lung cancer; and kidney disease, including nephritis and end-stage renal disease. This product, if heated may release asphalt fumes. During processing, inhalation of fumes may cause dizziness and/or irritation to the eyes, nose, and throat. Hot molten product will cause thermal burns to the skin.

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**Inhalation:** Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica. **WARNING:** irritating and toxic hydrogen sulfide gas may be present. Greater than 15-20ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50-500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance, difficulty in breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500ppm can cause rapid unconsciousness and death if not promptly revived. Prolonged exposure may cause irritation.

**Skin Contact:** Prolonged exposure may cause skin irritation. Risk of thermal burns on contact with molten product.

**Eye Contact:** May cause slight irritation to eyes. Risk of thermal burns on contact with molten product.

**Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** May cause cancer. Causes damage to organs (lungs, respiratory system) through prolonged or repeated exposure (Inhalation). Long term exposure to respirable crystalline silica results in a significant risk of developing silicosis and other non-malignant respiratory disease, lung cancer, kidney effects, and immune system effects.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If burned by hot product, cool affected area immediately with cool water. Do not attempt to remove solidified material from skin or eyes. Seek medical attention immediately. If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container, label, or SDS at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Water spray, dry chemical, foam, carbon dioxide.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product at elevated temperatures.

### Reference to Other Sections

Refer to Section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**General Measures:** Do not breathe dust, vapors, fumes, gas, spray, mist. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental Precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.

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**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Spills should be cleaned up immediately and placed in approved containers. For small molten spills, allow product to cool and remove as a solid. Use cautious judgement when cleaning up large molten spills. Wear personal protective equipment as appropriate, shut off source of leak if safe to do so, dike and contain molten material, and collect in approved containers for disposal in accordance with federal, state, and local regulations.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. This product, if heated may release asphalt fumes. During processing, inhalation of fumes may cause dizziness and/or irritation to the eyes, nose, and throat. Hot molten product will cause thermal burns to the skin. Heavy material- proper lifting methods or equipment.

**Precautions for Safe Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not breathe dust. Avoid contact with eyes, skin and clothing.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Store away from incompatible materials.

**Incompatible Materials:** Alum. Ammonium salts. Chlorates. Fluorine. Formaldehyde. Nitrates. Peroxides. Strong acids. When molten: water.

**Storage Temperature:** Unlimited

### 7.3. Specific End Use(s)

HMA is used for paving roads, driveways, parking lots and other surface, base, or sub-base applications.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in Section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Carbonic acid, magnesium salt (1:1) (546-93-0)		
USA NIOSH	NIOSH REL (TWA)	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
British Columbia	OEL TWA	10 mg/m <sup>3</sup> (total dust) 3 mg/m <sup>3</sup> (respirable fraction)
New Brunswick	OEL TWA	10 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica)
Nunavut	OEL STEL	20 mg/m <sup>3</sup>
Nunavut	OEL TWA	10 mg/m <sup>3</sup>
Northwest Territories	OEL STEL	20 mg/m <sup>3</sup>
Northwest Territories	OEL TWA	10 mg/m <sup>3</sup>
Québec	VEMP	10 mg/m <sup>3</sup> (containing no Asbestos and <1% Crystalline silica-total dust)
Quartz (14808-60-7)		
Mexico	OEL TWA	0.1 mg/m <sup>3</sup> (respirable fraction)
USA ACGIH	ACGIH TWA	0.025 mg/m <sup>3</sup> (respirable particulate matter)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA OSHA	OSHA PEL (TWA) [1]	50 µg/m <sup>3</sup> (Respirable crystalline silica)

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<b>USA OSHA</b>	OSHA PEL (TWA) [2]	(250)/(%SiO <sub>2</sub> +5) mppcf TWA (respirable fraction) (10)/(%SiO <sub>2</sub> +2) mg/m <sup>3</sup> TWA (respirable fraction) (For any operations or sectors for which the respirable crystalline silica standard, 1910.1053, is stayed or otherwise not in effect, See 20 CFR 1910.1000 TABLE Z-3)
<b>USA NIOSH</b>	NIOSH REL (TWA)	0.05 mg/m <sup>3</sup> (respirable dust)
<b>USA IDLH</b>	US IDLH	50 mg/m <sup>3</sup> (respirable dust)
<b>Alberta</b>	OEL TWA	0.025 mg/m <sup>3</sup> (respirable particulate)
<b>British Columbia</b>	OEL TWA	0.025 mg/m <sup>3</sup> (respirable)
<b>Manitoba</b>	OEL TWA	0.025 mg/m <sup>3</sup> (respirable particulate matter)
<b>New Brunswick</b>	OEL TWA	0.1 mg/m <sup>3</sup> (respirable fraction)
<b>Newfoundland &amp; Labrador</b>	OEL TWA	0.025 mg/m <sup>3</sup> (respirable particulate matter)
<b>Nova Scotia</b>	OEL TWA	0.025 mg/m <sup>3</sup> (respirable particulate matter)
<b>Nunavut</b>	OEL TWA	0.05 mg/m <sup>3</sup> (respirable fraction)
<b>Northwest Territories</b>	OEL TWA	0.05 mg/m <sup>3</sup> (respirable fraction)
<b>Ontario</b>	OEL TWA	0.1 mg/m <sup>3</sup> (designated substances regulation-respirable)
<b>Prince Edward Island</b>	OEL TWA	0.025 mg/m <sup>3</sup> (respirable particulate matter)
<b>Québec</b>	VEMP	0.1 mg/m <sup>3</sup> (respirable dust)
<b>Saskatchewan</b>	OEL TWA	0.05 mg/m <sup>3</sup> (respirable fraction (Silica - crystalline (Trydimite removed)))
<b>Yukon</b>	OEL TWA	300 particle/mL (Silica - Quartz, crystalline)
<b>Asphalt (8052-42-4)</b>		
<b>Mexico</b>	OEL TWA	5 mg/m <sup>3</sup>
<b>Mexico</b>	OEL STEL	10 mg/m <sup>3</sup>
<b>USA ACGIH</b>	ACGIH TWA	0.5 mg/m <sup>3</sup> (fume, inhalable particulate matter)
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen fume, coal tar-free
<b>USA ACGIH</b>	Biological Exposure Indices (BEI)	2.5 µg/l Parameter: 1-Hydroxypyrene with hydrolysis - Medium: urine - Sampling time: end of shift at end of workweek (background) Parameter: 3-Hydroxybenzo(a)pyrene with hydrolysis - Medium: urine - Sampling time: end of shift at end of workweek (nonquantitative)
<b>USA NIOSH</b>	NIOSH REL (ceiling)	5 mg/m <sup>3</sup> (fume)
<b>Alberta</b>	OEL TWA	5 mg/m <sup>3</sup> (Petroleum-fume)
<b>British Columbia</b>	OEL TWA	0.5 mg/m <sup>3</sup> (inhalable fume)
<b>Manitoba</b>	OEL TWA	0.5 mg/m <sup>3</sup> (fume, inhalable particulate matter)
<b>New Brunswick</b>	OEL TWA	5 mg/m <sup>3</sup> (petroleum fumes)
<b>Newfoundland &amp; Labrador</b>	OEL TWA	0.5 mg/m <sup>3</sup> (fume, inhalable particulate matter)
<b>Nova Scotia</b>	OEL TWA	0.5 mg/m <sup>3</sup> (fume, inhalable particulate matter)
<b>Nunavut</b>	OEL STEL	1.5 mg/m <sup>3</sup> (Bitumen-fume)
<b>Nunavut</b>	OEL TWA	0.5 mg/m <sup>3</sup> (Bitumen-fume)
<b>Northwest Territories</b>	OEL STEL	1.5 mg/m <sup>3</sup> (Bitumen-fume)
<b>Northwest Territories</b>	OEL TWA	0.5 mg/m <sup>3</sup> (Bitumen-fume)
<b>Ontario</b>	OEL TWA	0.5 mg/m <sup>3</sup> (fume, inhalable)
<b>Prince Edward Island</b>	OEL TWA	0.5 mg/m <sup>3</sup> (fume, inhalable particulate matter)
<b>Québec</b>	VEMP	5 mg/m <sup>3</sup> (fume)
<b>Saskatchewan</b>	OEL STEL	1.5 mg/m <sup>3</sup> (fume and inhalable fraction)
<b>Saskatchewan</b>	OEL TWA	0.5 mg/m <sup>3</sup> (fume and inhalable fraction)
<b>Yukon</b>	OEL STEL	10 mg/m <sup>3</sup> (fume)
<b>Yukon</b>	OEL TWA	5 mg/m <sup>3</sup> (fume)
<b>Hydrogen sulfide (7783-06-4) * May be formed during processing.</b>		
<b>Mexico</b>	OEL TWA (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
<b>Mexico</b>	OEL TWA	10 ppm
<b>Mexico</b>	OEL STEL	21 mg/m <sup>3</sup>

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Mexico	OEL STEL	15 ppm
USA ACGIH	ACGIH TWA	1 ppm
USA ACGIH	ACGIH STEL	5 ppm
USA OSHA	OSHA PEL (Ceiling)	20 ppm
USA OSHA	Acceptable Maximum Peak Above The Acceptable Ceiling Concentration For An 8-Hr Shift	50 ppm Peak (10 minutes once, only if no other measurable exposure occurs)
USA NIOSH	NIOSH REL (ceiling)	15 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (ceiling)	10 ppm
USA IDLH	US IDLH	100 ppm
Alberta	OEL Ceiling	21 mg/m <sup>3</sup>
Alberta	OEL Ceiling	15 ppm
Alberta	OEL TWA	14 mg/m <sup>3</sup>
Alberta	OEL TWA	10 ppm
British Columbia	OEL Ceiling	10 ppm
Manitoba	OEL STEL	5 ppm
Manitoba	OEL TWA	1 ppm
New Brunswick	OEL STEL	21 mg/m <sup>3</sup>
New Brunswick	OEL STEL	15 ppm
New Brunswick	OEL TWA	14 mg/m <sup>3</sup>
New Brunswick	OEL TWA	10 ppm
Newfoundland & Labrador	OEL STEL	5 ppm
Newfoundland & Labrador	OEL TWA	1 ppm
Nova Scotia	OEL STEL	5 ppm
Nova Scotia	OEL TWA	1 ppm
Nunavut	OEL STEL	15 ppm
Nunavut	OEL TWA	10 ppm
Northwest Territories	OEL STEL	15 ppm
Northwest Territories	OEL TWA	10 ppm
Ontario	OEL STEL	15 ppm
Ontario	OEL TWA	10 ppm
Prince Edward Island	OEL STEL	5 ppm
Prince Edward Island	OEL TWA	1 ppm
Québec	VECD	21 mg/m <sup>3</sup>
Québec	VECD	15 ppm
Québec	VEMP	14 mg/m <sup>3</sup>
Québec	VEMP	10 ppm
Saskatchewan	OEL STEL	15 ppm
Saskatchewan	OEL TWA	10 ppm
Yukon	OEL STEL	27 mg/m <sup>3</sup>
Yukon	OEL STEL	15 ppm
Yukon	OEL TWA	15 mg/m <sup>3</sup>
Yukon	OEL TWA	10 ppm

### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

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**Hand Protection:** Wear protective gloves.

**Eye and Face Protection:** Chemical safety goggles or safety glasses.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, NIOSH-approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Thermal Hazard Protection:** If material is hot, wear thermally resistant protective gloves.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Black Granular Solid
Odor	: Slight Petroleum Odor
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: > 93.3 °C (> 199.94 °F)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Relative Density	: Not available
Specific Gravity	: 2.0 - 2.5 (Water = 1)
Solubility	: Water: Insoluble in water
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see Section 7).
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Incompatible materials.
- 10.5. Incompatible Materials:** Fluorine, magnesium, acids, alum, ammonium salts, strong acids, formaldehyde, when molten: water.
- 10.6. Hazardous Decomposition Products:** Thermal decomposition may produce: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularly at elevated temperatures.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

- Acute Toxicity (Oral):** Not classified  
**Acute Toxicity (Dermal):** Not classified  
**Acute Toxicity (Inhalation):** Not classified  
**LD50 and LC50 Data:** Not available  
**Skin Corrosion/Irritation:** Not classified  
**Eye Damage/Irritation:** Not classified

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**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** May cause cancer.

**Specific Target Organ Toxicity (Repeated Exposure):** Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica. WARNING: irritating and toxic hydrogen sulfide gas may be present. Greater than 15-20ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50-500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance, difficulty in breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500ppm can cause rapid unconsciousness and death if not promptly revived. Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation. Risk of thermal burns on contact with molten product.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes. Risk of thermal burns on contact with molten product.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** May cause cancer. Causes damage to organs (lungs, respiratory system) through prolonged or repeated exposure (Inhalation). Long term exposure to respirable crystalline silica results in a significant risk of developing silicosis and other non-malignant respiratory disease, lung cancer, kidney effects, and immune system effects.

### 11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

<b>Quartz (14808-60-7)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
<b>Asphalt (8052-42-4)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 94.4 mg/m <sup>3</sup>
<b>Hydrogen sulfide (7783-06-4)</b>	
LC50 Inhalation Rat	444 ppm/4h
<b>Quartz (14808-60-7)</b>	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
<b>Asphalt (8052-42-4)</b>	
IARC Group	2A, 2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General:** Not classified.

<b>Hydrogen sulfide (7783-06-4)</b>	
LC50 Fish 1	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 Fish 2	0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

### 12.2. Persistence and Degradability

<b>Hot Mix Asphalt (HMA)</b>
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# Hot Mix Asphalt

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Persistence and Degradability	Not established.
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## 12.3. Bioaccumulative Potential

Hot Mix Asphalt (HMA)	
Bioaccumulative Potential	Not established.
Asphalt (8052-42-4)	
BCF Fish 1	(no bioaccumulation expected)
Log Pow	> 6
Hydrogen sulfide (7783-06-4)	
BCF Fish 1	(no bioaccumulation expected)
Partition coefficient n-octanol/water (Log Pow)	0.45 (at 25 °C)

## 12.4. Mobility in Soil

Not available

## 12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

**Additional Information:** Container may remain hazardous when empty. Continue to observe all precautions.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

### 14.1. In Accordance with DOT

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S., (ASPHALT)  
Hazard Class : 9  
Identification Number : UN3257  
Label Codes : 9  
Packing Group : III  
ERG Number : 128



### 14.2. In Accordance with IMDG

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S., (ASPHALT)  
Hazard Class : 9  
Identification Number : UN3257  
Label Codes : 9  
Packing Group : III  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-P



### 14.3. In Accordance with IATA

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S., (ASPHALT)  
Identification Number : 9  
Hazard Class : UN3257  
Label Codes : 9  
ERG Code (IATA) : 9L



### 14.4. In Accordance with TDG

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S., (ASPHALT)  
Hazard Class : 9  
Identification Number : UN3257  
Label Codes : 9  
Packing Group : III



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### SECTION 15: REGULATORY INFORMATION

#### 15.1. US Federal Regulations

<b>DuraPhaltTM, DuraPhaltTM HM, DuraWayTM, DuraToughTM, DuraPlayTM, DuraTintTM, DuraWhisperTM, DuraCycleTM, DuraClimeTM</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Health hazard - Carcinogenicity Health hazard - Specific target organ toxicity (single or repeated exposure)
<b>Carbonic acid, magnesium salt (1:1) (546-93-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Quartz (14808-60-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Asphalt (8052-42-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Hydrogen Sulfide (7783-06-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313	
<b>CERCLA RQ</b>	100 lb
<b>SARA Section 302 Threshold Planning Quantity (TPQ)</b>	500 lb
<b>SARA Section 313 - Emission Reporting</b>	1 %

#### 15.2. US State Regulations

<b>Quartz (14808-60-7)</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	<b>WARNING:</b> This product can expose you to Bitumens, extracts of steam-refined and air refined, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .
<b>Carbonic acid, magnesium salt (1:1) (546-93-0)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List	
<b>Quartz (14808-60-7)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Asphalt (8052-42-4)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Hydrogen Sulfide (7783-06-4)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
<b>15.3. Canadian Regulations</b>	
<b>Carbonic acid, magnesium salt (1:1) (546-93-0)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>Quartz (14808-60-7)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>Asphalt (8052-42-4)</b>	
Listed on the Canadian DSL (Domestic Substances List)	

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### Hydrogen Sulfide (7783-06-4)

Listed on the Canadian DSL (Domestic Substances List)

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest Revision** : 01/01/2022

### Revision

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

### GHS Full Text Phrases:

Acute Tox. 2 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 2
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Gas 1	Flammable gases Category 1
Press. Gas (Liq.)	Gases under pressure – Liquefied gas
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life

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