



Safety Data Sheet

Section 1: IDENTIFICATION

Product Identifier: Anionic Asphalt Emulsion (Asphalt emulsion)

Other Identifiers: Anionic Emulsified Asphalt, Emulsified Asphalt Cement, Polymer Modified Emulsified Asphalt Cement, Polymer Modified Emulsified Asphalt, Anionic Asphalt Emulsion, Asphalt Emulsion, RS-1, RS-2, RS-1P, RS-2P, SS-1, SS-1H, SS-1LT, SS-1HH, HF-150M, HF-150S, HFRS-2, HFMS-2 (ON), HF-150MP, HF-150SP, HFMS-2P (ON), EGS-40.

Manufacturer/Supplier Identifier:
GIP Paving Inc.
100 Commerce Valley Drive W,
Markham, Ontario L3T 0A1

Information Telephone Number:
(416) 633-9670 Monday – Friday 8AM-5PM
Emergency Telephone Number:
CANUTEC (613) 996-6666, 24HRS

Recommended Use: Asphalt emulsion is a water based suspension of asphalt cement and is used as a binder in asphalt paving applications such as paving roads, driveways, parking lots and other surface, base, or sub-base applications.

Restrictions on Use: None Known

Section 2: HAZARD IDENTIFICATION

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

Classification:
Acute toxicity (Inhalation) Category 4
Skin Irritation Category 2
Eye Irritation Category 2A
Carcinogenicity Category 2

Label Elements:

	WARNING	Eye Protection Gloves Apron
	<p>Hot product can cause burns.</p> <p>Harmful if swallowed Harmful in contact with skin Harmful if inhaled Causes mild skin irritation Causes eye irritation</p> <p>Product may release Hydrogen Sulfide (H₂S) gas.</p> <p>Use proper engineering controls, work practices, and personal protective equipment.</p> <p>Read SDS for details.</p>	

Other Hazards: Asphalt emulsion is a dark brown to black colored liquid that has a petroleum odor. Hot product will cause severe thermal burns. If burned by hot product, cool affected area immediately with flowing cool water. Seek medical attention. This product may release toxic hydrogen sulfide (H₂S), particularly if heated. Skin contact on repeated



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or prolonged basis can cause drying of the skin which may result in irritation or dermatitis.

Asphalt emulsion is not listed as a carcinogen by IARC or NTP, some components of the product are. The International Agency for Research on Cancer (IARC) has concluded that occupational exposures to oxidized asphalt and their emissions during roofing operations are “probably carcinogenic to Humans (Group 2A). IARC concluded that occupational exposures to hard asphalt and their emissions during mastic asphalt work are “possibly carcinogenic to humans” (Group 2B). IARC concluded that occupational exposures to straight-run asphalt and their emissions during paving operations are “possibly carcinogenic to humans” (Group 2B). Asphalt cement is produced from high temperature vacuum distillation of crude oil. Composition varies depending on source of crude and specifications of final product.

Asphalt cement products can contain hydrogen sulfide, because it is naturally occurring in crude oil from which asphalt is derived. Hydrogen sulfide can also be present as a by-product of asphalt processing.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	Percent (By Weight)	CAS Number
Asphalt Cement (as fume)	35-75	8052-42-4
Fuel Oil #2 (as Vapor & Aerosol)	0-15	68476-30-2
Water	25-65	7732-18-5
Butadiene Styrene Copolymer	0-5	9003-55-8
Crude Tall Oil	0-3	8002-26-4
Sodium Hydroxide	< 1	1310-73-2

Section 4: FIRST AID MEASURES

Potential Health Effects: Risk of injury depends on duration and level of exposure.

First Aid Measures:

Eye Contact For contact with product, flush with large amounts of cool flowing water for at least 15 minutes, including under lids. Seek immediate medical attention.

Skin Contact Wash with cool flowing water and a pH neutral soap or a mild skin detergent. Do not use solvents or thinners to remove product from skin. Seek medical attention for burns, rash, irritation, and dermatitis.

For contact with hot product, immerse or flush skin with cold water for at least 15 minutes. Seek immediate medical attention. If asphalt cement has circumferentially coated a limb or body, then split the asphalt cement longitudinally to avoid a tourniquet effect. Asphalt cement will naturally detach itself over time. Do not attempt to remove asphalt cement that has adhered to skin as this may pull skin away and cause further harm. If no burn has occurred then mineral oil or olive oil may be used to gently dissolve the asphalt cement and then wash gently with soap and water.

Inhalation Move person to fresh air. Seek medical attention.



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- Ingestion** Do not induce vomiting unless medical personnel provide instructions to do so. Never provide anything by mouth to an unconscious person. Seek medical attention or contact poison control center immediately.
- Eye Contact** Hot product will cause severe thermal burns. Eye contact with asphalt emulsion and asphalt emulsion fumes can cause moderate eye irritation, redness, chemical burns and itching. Eye exposures require immediate first aid to prevent damage to the eye.
- Skin Contact** Direct contact with hot asphalt emulsion will cause severe thermal burns. Repeated or prolonged contact to asphalt emulsion may cause dry skin, discomfort, irritation, chemical burns and dermatitis.
- Inhalation** Hot asphalt emulsion releases irritating fumes or vapors such as smoke, carbon dioxide, carbon monoxide, and unburned hydrocarbons. Exposure to fumes or vapors may cause irritation of the nose and throat, and symptoms such as headache, dizziness, loss of coordination, and drowsiness.
- Hydrogen sulfide and other sulfur-containing gases can evolve from this product, particularly at elevated temperatures. Hydrogen sulfide can cause respiratory paralysis and death, depending on concentrations and duration of exposure. Hydrogen sulfide may have a characteristic “rotten egg” odour. Do not rely on ability to smell vapors, since odour fatigue rapidly occurs. Effects of overexposure include irritation of the nose and throat, nausea, vomiting dizziness, signs of nervous system depression, and loss of consciousness.
- Ingestion** Do not ingest asphalt emulsion. Hot product will cause thermal burns. Ingestion may result in poisoning, nausea, vomiting, diarrhea and restlessness. Seek immediate medical attention.

Immediate Medical Attention and Special Treatment:

Do not attempt to remove firmly adhering asphalt from the skin. Once the asphalt has cooled, it will not cause further harm and will provide a sterile covering over the burned area. If asphalt cement has circumferentially coated a limb or body, then split the asphalt cement longitudinally to avoid a tourniquet effect. As healing takes place, the asphalt will detach itself, usually over the course of several days.

Section 5: FIREFIGHTING MEASURES

Extinguishing Media:

- Suitable Extinguishing Media** Small Fire- Carbon Dioxide, dry chemical powder, appropriate foam, water spray or fog, non-combustible material such as dry sand or earth.
Large Fire –Fire Fighting foam suitable for the situation.
- Unsuitable Extinguishing Media** Do not spray water onto tanks or vessels containing hot asphalt as water reacts violently with asphalt at elevated temperatures and may result in a steam explosion.

Combustion Products: Toxic gases are produced in fire, such as smoke, fume, CO, CO₂, SO₂ and H₂S.

Specific Hazards: Fire may release toxic combustion products such as smoke, fume, CO, CO₂, SO₂ and H₂S.
If tank, rail car or tanker truck is involved in fire, isolate for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. Shut off fuel to fire if possible to do so without hazard. Avoid flushing spilled product into sewers, streams or other bodies of water.

Special Protective Equipment and Precautions for Fire-Fighters: A SCBA is recommended to limit exposures to combustion products when fighting fires.



Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. Remove all potential ignition sources. Isolate the area of the spill and restrict access. For small spills, soak up released asphalt emulsion with inert absorbent material, remove with shovels and place spilled material into a container. Contain large spills with inert materials. Avoid using combustible absorbers such as sawdust. Transfer liquids and solid material to suitable containers for recovery or disposal. Do not allow spills and cleaning runoff to enter drains, sewers, groundwater, drainage ditches or surface waters. Wear appropriate protective equipment as described in Section 8.

Containment and Clean up:

Methods for containment can be to stop or reduce leak if safe to do so. Ventilate area to prevent the gas from accumulating, especially in confined spaces

Methods for cleanup/disposal of asphalt emulsion should be according Federal, State, Provincial and Local regulations. Protect bodies of water by diking to prevent run off, absorbents or absorbent boom that does not react with spilled product. Place used absorbent into suitable, covered, labeled containers for disposal. Remove or recover liquid using pumps or vacuum equipment.

Inform relevant authorities if the product has caused environmental pollution. Contact emergency services and manufacturer/supplier for advice.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:

Handle with care and use appropriate control measures. Use appropriate grounding and bonding practices. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other source of ignition. Do not cut, drill, grind or weld on empty containers since they may contain flammable residues.

Significant concentrations of hydrogen sulfide (H₂S) gas can be generated and accumulate in storage tanks and bulk transport compartments which may require additional precautions and procedures during loading and unloading. When opening covers and outlet caps on storage tanks, use face shield and gloves to avoid possible injury from pressurized product. Stay upwind and vent open hatches before unloading. Keep heating coils and flues in storage tanks, trucks and kettles covered with product. Do not overheat.

Avoid contact with skin, eyes and clothing. Use additional precautions when handling hot material. Maintain employee exposure levels below established regulatory limits. Do not allow hot product to contact skin. Ensure adequate ventilation. Use all appropriate engineering controls and Personal Protective Equipment (PPE) described in Section 8 below.

Conditions for Safe Storage:

Store away from all ignition sources and open flames. Avoid freezing. This product is a mixture of water and asphalt. Do not store above 190°F or below 40°F. Heating product above 190°F may cause water portion to boil which may result in an overflow of hot product from storage container.



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Do not expose to open flames, strong oxidizers or other source of ignition. Store in dry, cool and well ventilated conditions. Keep away from food and drink. Consult appropriate Federal, State, and Provincial and Local authorities before reusing, recycling or disposing of empty containers or waste residues of this product.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

Component	ACGIH TLV® TWA (mg/m ³)	ACGIH TLV® STEL (mg/m ³)	OSHA PEL TWA (mg/m ³)
Asphalt Cement (as fume)	0.5		
Fuel Oil #2 (as Vapor & Aerosol)	100		
Water			
Butadiene Styrene Copolymer	3.0		
Crude Tall Oil			
Sodium Hydroxide	2 (Ceiling)		

Appropriate Engineering Controls: Use local exhaust or general dilution ventilation to maintain levels below exposure limits. Ensure that an emergency eye wash station and safety shower is located near the work area.

Individual Protection Measures:

Respiratory Protection Under ordinary conditions no respiratory protection is required. Wear a NIOSH approved respirator that is properly fitted and is in good condition when exposed to vapors above exposure limits.

Eye Protection Wear CSA/ANSI approved safety goggles when handling asphalt emulsion to prevent contact with eyes. A face shield may also be required to prevent contact with eyes and face.

Skin Protection Wear chemical resistant gloves (e.g. neoprene or butyl rubber) to prevent skin contact and thermally insulated gloves when handling hot product. Do not rely on barrier creams, in place of impervious gloves. Additional protection may be necessary to prevent skin contact including use of apron, arm covers, face shield or boots. Remove and launder clothing that is soiled with asphalt emulsion. Thoroughly wash hands and other exposed skin after exposure to asphalt emulsion.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid	Flammability (solid/gas):	Not applicable
Odour:	Slight petroleum odour	Upper/Lower Flammability or Explosive Limits:	Not applicable
Odour Threshold:	N/A	Vapour Pressure:	< 1 mm Hg @ 20°C
pH:	9-12	Vapour Density (air = 1):	Not applicable
Melting Point:	N/A	Relative Density (Water=1):	1.01
Freezing Point:	0°C (water phase).	Solubility:	Partially miscible with water



Initial Boiling Point:	100°C (water phase)	Partition Coefficient: n-octanol/water (Log Kow):	SDS: Anionic Asphalt Emulsion Not applicable
Boiling Point Range:	100°C (the water phase)	Auto-ignition Temperature	> 370°C (> 698°F)
Flash Point:	> 232°C (> 450°F) Cleveland Open Cup	Decomposition Temperature:	Not applicable
Evaporation Rate:	Not applicable	Viscosity:	10-300 SFS (Saybolt Furol Seconds)

Section 10: STABILITY AND REACTIVITY

Reactivity:	Non-reactive under normal conditions of use
Chemical Stability:	Stable under recommended storage conditions.
Possibility of Hazardous Reactions:	None.
Conditions to Avoid:	High temperatures, sources of heat, ignition, or open flame.
Stability:	Stable. Avoid contact with incompatible materials, excessive heat, sources of ignition and open flame.
Incompatible Materials:	Acids, bases, oxidizing agents such as nitrates, chlorates, peroxides.
Incompatibility:	Asphalt emulsion is incompatible with strong acids or bases, and oxidizing agents such as nitrates, chlorates and peroxides.
Hazardous Decomposition Products:	When heated may liberate carbon monoxide, carbon dioxide, hydrogen sulfide, trace oxides of sulfur and nitrogen, various hydrocarbons, smoke, vapours, fumes.

Section 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation, ingestion, skin contact, eye contact.

Acute Toxicity

Components	CAS Number	LD ₅₀ (rat, oral)	LC ₅₀ (rat, inhalation)	LD ₅₀ (rabbit, dermal)
Asphalt Cement (as fume)	8052-42-4	>5000 mg/kg		>2000 mg/kg
Fuel Oil #2 (as Vapor & Aerosol)	68476-30-2	7600 mg/kg	4.1 mg/l	4300 mg/kg
Water	7732-18-5			
Butadiene Styrene Copolymer	9003-55-8	>2000-10000 mg/kg	> 5 mg/l	>5000 mg/kg
Crude Tall Oil	8002-26-4	66 g/kg		
Sodium Hydroxide	1310-73-2			

Skin Corrosion/Irritation



Irritating to skin. Signs and symptoms may include redness, itching, swelling, pain. Prolonged or repeated contact may cause severe burns. Contact with hot product will cause thermal burns

Serious Eye Damage/Irritation

Irritating to eyes. Signs and symptoms may include redness, itching, swelling, pain, blurred vision, tears, blindness. Contact with hot liquid may cause severe burns. Vapors may cause redness, itching, swelling, pain, blurred vision, tears or blindness. Product may release hydrogen sulfide gas which may irritate eyes. Signs and symptoms may include redness, itching, swelling, pain, light sensitivity, appearance of 'halos' around lights, and loss of consciousness.

STOT (Specific Target Organ Toxicity) – Effects from Short Term Exposure

Single Exposure

Throat and nose irritation. Hot vapors may contain hydrogen sulfide. Fume inhalation may cause headache, nausea, nervousness, eye irritation, respiratory tract irritation.

Ingestion

Not a relevant route of exposure (gas). May cause burns to mouth, tongue, lips, throat, nasal passage, stomach.

May result in headache, vomiting, nausea, shortness of breath, irregular heartbeat, dizziness, confusion, fatigue.

Aspiration Hazard

Not known to be aspiration hazard.

STOT (Specific Organ Toxicity) – Repeated Effects From Long-Term Exposure

Not available.

Respiratory and/or Skin Sensitization

Skin irritation symptoms may include itchiness, redness, swelling, and irritation of the respiratory system.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Asphalt (Bitumen)	Group 2B	A4		
Fuel Oil No. 2	Group 3	A3	Not Listed	

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

Reproductive Toxicity

Development of Offspring

Not available.

Sexual Function and Fertility

Not available. None known.

Effects on or via Lactation

None known.

Germ Cell Mutagenicity

Not available.

Interactive Effects

Not available.



Section 12: ECOLOGICAL INFORMATION

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods: Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. Recycle and reuse product, if possible. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user. Dispose of or empty recycle containers through an approved waste management facility.

Section 14: TRANSPORT INFORMATION

TDG (Canada) and U.S. DOT

This product is not regulated under Canadian TDG regulations and U.S. DOT

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 listed on DSL/NDSL. Components of this product are in compliance with the chemical notification requirements of the NSN Regulation under CEPA, 1999.

Section 16: OTHER INFORMATION

Date of Last Revision: 17-January-2025

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