

**SDS #: 355**

DATE REVISED: 12/20/2017  
SUPERSEDES ANY PREVIOUS

<b>Section 1</b>	<b>Product Identification/Contact Information</b>
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**Generic Category:** **Anionic High-Float Emulsified Asphalt**

**Product Name(s):** HFE-90, HFE-100s, HFE-150, HFE-300, HFE-500, HFMS-2, HFMS-2P HFRS-2, HFRS-2P

**Formula:** Trade Secret

**Company Address:** Idaho Asphalt Supply, Inc.  
P.O. Box 50538  
Idaho Falls, ID 83405  
PHONE: (208) 524-5871

**EMERGENCY PHONE:** **Chemtrec (800) 424-9300**

**Product Use:** Road Paving and Resurfacing

<b>Section 2</b>	<b>Hazard(s) Identification</b>
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**OSHA/MSHA Hazard Communication:** This product is considered by OSHA/MSHA to be a hazardous chemical and should be included in the employer's hazard communication program

**Classifications:** Skin Irritation – Category 2  
Eye Irritation – Category 2  
Carcinogenicity – Category 2

**Signal Word:** WARNING

**Hazards:** May cause irritation and burns to skin and eyes when brought in contact.

**Inhalation:** This product is not likely to present an inhalation hazard during normal use. At elevated temperatures and in confined spaces, vapors may cause irritation of the respiratory tract.

**Skin Absorption:** No significant symptoms indicative of skin absorption expected.

**Skin Irritation:** Will cause burns when product is hot. May cause dermatitis and acne like lesion with prolonged exposure.

**Ingestion:** Ingestion of this material can cause severe irritation or burns of the mouth, throat, esophagus, and stomach. May cause nausea and vomiting.

**Eye Contact:** Will burn and irritate.

**Primary Route of Exposure:** Skin and eye contact are the primary routes of exposure to this product.

**Carcinogen:** The International Agency for Research on Cancer (IARC) concluded that occupational exposures to asphalt fume during paving operations are "possibly carcinogenic to humans" (Group 2B).



<b>Section 3</b>	<b>Composition/Information on Ingredients</b>
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<u>Ingredients</u>	<u>CAS #</u>	<u>Concentration</u>
Asphalt Cement	8052-42-4	< 70%
Polymer Additives	Trade Secret	< 8%
Naptha	8030-30-6	< 5%
No. 1 Fuel (Kerosene)	8008-20-6	< 10%
No. 2 Fuel (Diesel)	68476-34-6	< 20%
Anionic Emulsifier	Trade Secret	< 5%
Sodium Hydroxide	1310-73-2	< 2%
Hydrogen Sulfide	7783-06-4	< 0.1%
Polycyclic aromatic hydrocarbons	130498-29-2	< 0.1%
Water	7732-18-5	Balance

<b>Section 4</b>	<b>First Aid Measures</b>
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**Inhalation:** Remove to fresh air. Give oxygen or artificial respiration as needed. Obtain medical attention promptly.

**Eye Contact:** Flush eyes with low pressure water for at least 15 minutes and obtain medical attention immediately.

**Skin Contact:** If hot product should contact skin, thermal burns will result. Immediately cool the affected area with cold water. It is not advisable to immediately remove product. Natural separation will occur in 48 -72 hours. Removal should be attempted only under the direction of a physician.

**Ingestion:** If ingested, do not induce vomiting, call a physician immediately.

<b>Section 5</b>	<b>Fire Fighting Measures</b>
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**Flash Point:** Not Available

**Autoignition Temperature NFPA:** Not Available

**Extinguishing Media:** Dry Chemical, CO<sub>2</sub>, Class "B" extinguisher or foam.

**Special Fire Fighting Procedures:** Avoid breathing vapors, wear self-contained breathing apparatus. Use of foam or water may cause frothing. Avoid using straight water streams.

**Unusual Fire Explosion Hazards:** Do not heat material above 100°C (212°F) to avoid generating excessive steam pressure.

**Fire & Explosion Hazards:** This product is not defined as flammable or combustible.

**Hazard Rating:**

	HMIS	NFPA	Hazard Rating Scale	
Health:	2	2		
Fire:	1	1	0 - Minimal	3 - Serious
Reactivity	0	0	1 - Slight	4 - Severe
Special Fire Fighting Procedures:	0	0	2 - Moderate	

**Section 6****Accidental Release Measures****Notification and Personal Precautions:**

In the event of a spill or accidental release, immediately contact emergency personnel and notify relevant authorities in accordance with all applicable regulations. If the release of this material to the environment could reach any waterway including intermittent dry creeks, contact the National Response Center at (800)424-8802.

**Land Spill:**

Stop release by making earthen dike, prevent flow from entering sewers and water ways. Allow to cool. Remove large spill. Soak up product with sand.

**Waste Disposal:**

Handle in accordance with federal, state and local regulations.

**Section 7****Handling and Storage****Precautions for safe handling:**

Wear appropriate personal protective equipment (see Section 8). Avoid prolonged exposure. Use only in well-ventilated areas. Trace amounts of hydrogen sulfide, a very highly toxic gas, may be present with this material. Keep face clear of tank and/or tank car openings. Open hatches with caution. Wash hands and contaminated areas with water and soap before leaving the work site.

**Conditions for safe storage:**

Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a well-ventilated place. Do not allow material to freeze.

**Section 8****Exposure Controls/Personal Protection**

Chemical Name	PEL (OSHA)	STEL (OSHA)	STEL (NIOSH)	TWA (ACGIH)
Asphalt Cement Fumes				0.5 mg/m <sup>3</sup>
Naptha	100 ppm		100 ppm	
No. 1 Fuel (Kerosene)			100 mg/m <sup>3</sup>	
Sodium Hydroxide	2 mg/m <sup>3</sup>		2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
Hydrogen Sulfide		20 ppm	5 ppm	1 ppm

**Respiratory Protection:**

Avoid breathing vapors in confined spaces. NOISH approved respirators may be required if TLV's are exceeded.

**Eye Protection:**

Use safety glasses, goggles or face shields.

**Skin Protection:**

PPE selection based on the specific use conditions. When handling product at elevated temperatures, use long-cuffed heat resistant gloves. When product is at ambient temperatures, use gloves constructed of chemical resistant materials such as heavy nitrile rubber. Use coveralls, impervious apron and long sleeved shirts and wear impervious footwear

**Engineering Controls:**

Local exhaust ventilation may be required to meet exposure standards in confined areas.

**Handling Precautions:**

Storage tanks and trucks must be emptied, cooled, ventilated, and tested for absence of vapors before allowing personnel entry.

<b>Section 9</b>	<b>Physical &amp; Chemical Properties</b>
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<b>Boiling Point:</b>	> 100°C (212°F)	<b>Vapor Density (Air= 1) :</b>	>1
<b>Specific Gravity @ 60°F:</b>	0.95 to 1.03	<b>Evaporation Rate (nBuAc = 1):</b>	<1
<b>Viscosity:</b>	< 2000 mPas at 60°C (140°F)	<b>Solubility in Water:</b>	Up to 100%
<b>Melting Point:</b>	Not Established	<b>Vapor Pressure (mm Hg):</b>	<1
<b>Appearance and Odor:</b>	Viscous brown to black liquid; mild hydrocarbon odor		

<b>Section 10</b>	<b>Stability and Reactivity</b>
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<b>Stable:</b>	YES
<b>Conditions to Avoid:</b>	Open flame, sparks and extreme heat. Do not heat above 200 °F (93.3°C). Avoid freezing.
<b>Incompatible Materials:</b>	Avoid strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Combustion may form CO <sub>2</sub> , CO and sulfur dioxide.
<b>Hazardous Polymerization:</b>	Will not occur.

<b>Section 11</b>	<b>Toxicological Information</b>
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**Information on likely routes of exposure**

<b>Ingestion:</b>	Expected to be a low ingestion hazard.
<b>Inhalation:</b>	Prolonged inhalation may be harmful.
<b>Skin contact:</b>	Thermal burn hazard.
<b>Eye contact:</b>	Harmful in contact with eyes.

**Information on toxicological effects**

**Acute toxicity**

Ingredient	Result	Species	Dose	Exposure
<b>Asphalt</b>	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
<b>Fuel, No.1</b>	LC50 Inhalation Vapor	Rat	>5.28 mg/l	5 hrs
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-

**Irritation/Corrosion:**

Ingredient	Result	Species	Score	Dose	Observation
<b>Sodium Hydroxide</b>	Eyes - Severe irritant	Monkey	-	24 hours 1 Percent	-
	Eyes - Mild irritant	Rabbit	-	400 micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50 micrograms	-
	Eyes - Severe irritant	Rabbit	-	1 percent	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 mg	-
	Skin - Mild irritant	Human	-	24 hrs 2 percent	-
	Skin - Severe irritant	Rabbit	-	24 hrs 500 mg	-

## Carcinogenicity

- NTP:** Asphalt (CAS-No.: 8052-42-4), may contain trace amounts of benzene a chemical known to cause cancer.  
No. 1 Fuel (Kerosene) (CAS-No.: 8008-20-6), may contain chemicals known to cause cancer.
- IARC:** Asphalt (Bitumen) (CAS-No.: 8052-42-4) Group 2B possibly carcinogenic to humans  
No. 1 Fuel (Kerosene) (CAS-No.: 8008-20-6), Group 2B possibly carcinogenic to humans.
- OSHA:** Asphalt (CAS-No.: 8052-42-4), may contain trace amounts of benzene a chemical known to cause cancer.  
No. 1 Fuel (Kerosene) (CAS-No.: 8008-20-6), may contain chemicals known to cause cancer.

## Teratogenicity

**Specific target organ toxicity (single exposure):** Not Available

**Specific target organ toxicity (repeated exposure):**

Ingredient	Category	Route of exposure	Target Organs
Fuel, No.1	Category 2	Skin	Bone marrow, liver and thymus

**Aspiration hazard:** Not Available

**Information on the likely routes of exposure:** Routes of entry anticipated: Oral, Dermal, Inhalation.

## Delayed and immediate effects and also chronic effects from short and long term exposure

### Short term exposure

**Potential immediate effects:** Not Available

**Potential delayed effects:** Not Available

### Long term exposure

**Potential immediate effects:** Not Available

**Potential delayed effects:** Not Available

### Potential chronic health effects

**General:** Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity:** Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity:** No known significant effects or critical hazards.

**Teratogenicity:** No known significant effects or critical hazards.

**Developmental effects:** No known significant effects or critical hazards.

**Fertility effects:** No known significant effects or critical hazards.

### Numerical measures of toxicity

**Acute toxicity estimates:** Not Available

**Section 12****Ecological Information**

<b>Eco-toxicity:</b>	This material is not expected to have a significant adverse effect on the environment
<b>Persistence and degradability:</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential:</b>	No data available.
<b>Mobility in soil:</b>	No data available.
<b>Other adverse effects:</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**Section 13****Disposal Consideration**

<b>Disposal:</b>	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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**Section 14****Transportation Information****DOT/TDG**

Proper shipping name:	Not Regulated
UN-No.:	-
Class:	-
Packing group:	-
Hazard inducer:	-

**Section 15****Regulatory Information**

<b>CERCLA (Comprehensive Environmental Response Compensation and Liability Act):</b>	This product is not listed as a CERCLA hazardous substance.
<b>SARA Title III (Superfund Amendments and Reauthorization Act):</b>	This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 and is considered to be an acute health hazard (irritation).
<b>EPRCA SARA Section 313:</b>	This product contains none of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.
<b>TSCA:</b>	This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.
<b>California Prop. 65:</b>	This product and/or its components are not listed in California's Proposition 65.

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this SDS was obtained from sources which we believe reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use and disposal of the products are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

This SDS was prepared and is to be used only for these products. If the product is used as a component in another product, this SDS information may not be applicable.

This SDS has been prepared in accordance with the requirements of the OSHA Hazardous Communication Standard (29 CFR 1200)

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