

BRZ CONSULTING
Santa Fe, New Mexico
505.699.2136
jamespbearzi@gmail.com

October 11, 2022

via e-mail to: justin.ball@state.nm.us
shelly.lemon@state.nm.us
Stephen.connolly@state.nm.us

Justin Ball, Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Drive
Santa Fe, New Mexico 87505

RE: WRITTEN REPORT 20.6.2.1203.A(6) NMAC
STATE HIGHWAY 15 ASPHALT EMULSION SPILL
ENTS 16286

Dear Mr. Ball:

This letter constitutes the written report required pursuant to 20.6.2.1203.A(6) NMAC for the State Highway 15 ("SH15") Asphalt Emulsion Spill (ENTS 16286), submitted on behalf of R. Marley, LLC ("RM"). As you are aware, a tanker-truck accident occurred on September 26, 2022 on SH15 at approximately mile marker 15 that resulted in the release of an undetermined amount of asphalt emulsion used for road surfaces. The release occurred on U.S. Forest Service ("USFS") lands. The load was being delivered to the New Mexico Department of Transportation ("NMDOT") for their use in chip sealing a portion of SH15. The vehicle is owned and operated by RM; the New Mexico State Police and NMDOT responded to the scene.

Although there was some initial confusion about which entity (RM or NMDOT) would report and address the release, and a lack of clarity of responding agency responsibilities, RM has taken responsibility for required corrective actions going forward. RM has not yet ascertained the precise amount of product released, but is working quickly to do so and should have that information within a few days. Although RM has not had the opportunity to discuss this matter directly with you in accordance with 20.6.2.1203.A(6) NMAC, RM has been in daily communication since October 6 with your colleagues Shelly Lemon (New Mexico Environment Department ("NMED") Surface Water Quality Bureau ("SWQB") Chief), John Moeny (SWQB staff located in Silver City), and Steve Connolly (NMED Incident Coordinator) in our attempts to determine NMED's views as to what further corrective actions may be necessary or appropriate.

Asphalt Emulsion Background

The tanker was carrying an asphalt emulsion product used for road resurfacing and rehabilitation. The product – known as “HFE-100P” and manufactured by Ergon Asphalts and Emulsions – is spray-applied followed by application of aggregate. See attached Safety Data Sheet. This process is often called “chip seal” and the product is a polymer-modified asphalt emulsion that binds the aggregate to the roadbed. The product is transported in a viscous liquid state, and when applied in a thin layer at ambient temperatures coagulates almost instantaneously on contact with the road surface. Because it repels water and is resistant to sunlight degradation, it is commonly used to rehabilitate road surfaces to enhance safety and durability. Because it is intended to be applied at ambient temperatures, workers are not exposed to burn hazards or emissions of volatile organic compounds (“VOCs”) that are common in hot asphalt applications. Neither the U.S. Environmental Protection Agency (“USEPA”) nor the State of New Mexico considers this product a hazardous waste, hazardous substance, or hazardous material. In addition to use throughout New Mexico and approval by NMDOT, asphalt emulsions are commonly used to line drinking water reservoirs and tanks, and in reseeded and mulching operations.

Asphalt emulsion is simply a suspension of small asphalt globules in water, which is assisted by an emulsifying agent (such as soap or other surfactant) by imparting an electrical charge to the surface of the asphalt cement globules so that they do not coalesce. Modern emulsifiers are often composed up to half or more of organic oils from pine trees and animal fats. The material being transported was composed of asphalt, water, emulsifier, and a small (<1%) fraction of hydrochloric acid (“HCl”) to inhibit rust, oxidation, and other impurities that could compromise the desired physical properties. The precise proportions of the ingredients have a range of 55-75% asphalt and the remainder water, with trace amounts of HCl and the emulsifier. The tanker involved in the accident only transports HFE-100P.

The product affects the environment the same way asphalt does, only to a much lesser degree. According to the USEPA, the primary pollutants of concern from asphalts and asphalt paving operations are VOCs. Only minor amounts of VOCs are emitted from emulsified asphalts, which is why this product is preferred for chip seal and topping operations and approved by the NMDOT.

As previously discussed, this product is not hazardous waste, a hazardous substance, a hazardous material, or toxic. The congealed material is appropriate for road beds in any setting (residential, urban, rural, state highways, interstate), is safe for human and environmental contact, and may be landfilled or surface disposed. Runoff from properly chip sealed road surfaces are not known to appreciably degrade water quality. Stored water for treatment for human consumption (that is, drinking water) comes in direct contact with asphalt emulsions in lined reservoirs and tanks. Because the product when released to the environment does not alter the physical, chemical, biological, or

radiological qualities of water, RM questions whether or not it is a “water contaminant” under 20.6.2.7.W(3) NMAC.

Because of the physical and chemical properties of the product, is it incredibly inert. That is, it is extremely resistant to degradation in the environment, leaching into soil, or dissolving into water. The primary effect on plant life is direct contact with grasses, shrubs, ferns, and groundcover that may be smothered and killed. Once congealed, the product has no demonstrable effect on soils, biota, or waters, as it has no physical or chemical properties that would allow it to leach. However, foreign materials in otherwise “natural” aquatic habitats could be physically injurious to certain aquatic life (e.g., if the product is introduced into fish gills), so prompt removal from watercourses is indicated. No fish kills have been reported as a result of the release. If the released product is timely retrieved (that is, within a few years), there would be no lasting effects on the environment from this spill.

Once congealed, the product is chemically and physically inert. Highway workers apply the product in a thin film at ambient temperatures, thus eliminating burn hazards to workers. Furthermore, as a thin film the product congeals almost immediately on contact with the road surface, so release of asphalt chemicals (e.g., VOCs) is negligible. Work with this product can safely be done without any personal protective equipment. Pavement contractors using this product do not wearing respirators or other special protective equipment (workers are not subject to the requirements of 21 CFR 1910); this is a major reason why asphalt emulsions are preferred for many road rehabilitations.

However, if present as a viscous liquid (i.e., before it congeals) the product can emit VOCs and other chemical constituents of asphalt. While every person’s reaction to any chemical or physical substance can be different, persons in close contact may experience temporary eye irritation. If contact with the skin is made, temporary skin irritation may result, and lotion or hand cream may aid in removal if it is stuck to the skin. Nausea and gastrointestinal problems are not associated with asphalt materials, unless large amounts are ingested.

Corrective Actions Implemented¹

1. On October 6, 2022 RM began acquiring equipment and materials and deployed the first few workers to begin cleanup efforts. Due to the nature of the terrain and the desire to preserve forest resources, the use of mechanized equipment is not feasible. Cleanup efforts (i.e., removal of spilled product and earth materials and vegetation to which the spilled product is adhered) are therefore being accomplished by RM employees and temporary laborers by hand using visual identification methods, with transport to a roll-off bin by foot in five-gallon

¹ Through October 10, 2022

- buckets and bags. By October 7, 2022 RM had a dozen or more workers deployed, and has continued to do so each day – except for Sunday, October 9. Local residents have also taken it upon themselves to remove spilled product, and have been doing so since the initial release. While RM will not bar these workers from helping or otherwise entering the Forest in the work zone so long as they are able and willing to work safely and under RM direction, RM will not actively recruit them.
2. RM has assessed the downstream nature and extent of the spilled product and determined it to be about one-half mile from the spill site, and a significant distance upstream from Meadow Creek. Confirmation was conducted by RM and state and federal agency personnel using visual and olfactory methods. See attached maps.
 3. RM enhanced several existing natural features that serve as check dams with readily-available materials (minimizing disruption to forest resources) and in some cases chicken wire. One of these natural features is at the furthest downstream extent of the spilled product. RM has inspected the effectiveness of the dams, which to date are functioning properly. However, a significant rainfall and runoff event on October 8 filled the drainage to bankfull and some of the flow bypassed the lowermost check dam. Some product adhering to pine needles in centimeter-wide globules migrated beyond the dam. RM has retrieved those particles
 4. Workers are removing spilled product and resources to which spilled material is attached from the affected area, working on the watercourse, the area nearest the road, and the downstream extent first and then progressing upstream. Product is removed and either transported to the road in five-gallon buckets and bags for containerization, or staged on a sideslope for later transport. Product is removed fairly easily, and unless it is present in a thin film does not readily adhere to natural materials. RM will continue to remove product until visual assessment reveals that no product remains, further removal is impracticable, or further removal will damage the forest resource more than the benefit gained from the removal. As of October 10, 2022, approximately 300 linear yards of the lowermost portions of the drainage have been thoroughly cleaned up, with all but the smaller and more difficult particles and globs removed from an additional 600 yards. It will take approximately five to 10 days to complete this phase of the cleanup in which the entire drainage undergoes a thorough removal. RM and state and federal agency personnel have stated their opinions that removal of every particle of product will likely be impracticable.
 5. RM has been providing updates by conference call to the U.S. Forest Service, NMED, the U.S. Army Corps of Engineers, since October 7, and has been providing daily e-mail updates to government and elected officials, interested

community members, and the media since October 8. RM is convening a community meeting the evening of October 11, 2022 to brief the public on the cleanup and to field questions.

Corrective Actions To Be Taken

1. RM will continue to deploy up to 12 persons per day (except for Sundays when a smaller crew will be deployed) to retrieve spilled product from the drainage. Crews will be deployed until RM determines that all product has been removed, further removal is impracticable, the benefit of further removal is exceeded by the degradation of forest resources by the removal, or asked to cease removal efforts by the USFS. Barring unforeseen field conditions, RM expects this phase of cleanup to be complete by October 21. will document the reason for cessation of removal efforts in a Corrective Action Report.
2. RM will monitor the lowermost check dam daily to ensure it functions as designed and continues to trap product that may migrate downstream.
3. Stream restoration is often conducted in phases. The conclusion of this first phase will be marked upon cessation of removal efforts for any reason (except for temporary cessation due to safety concerns or stream conditions). At that time, RM will deploy an environmental professional who did not participate in the physical removal (i.e., James Bearzi) within 14 days to independently assess whether or not the reason the on-the-ground cleanup effort ceased was justified. If found to be unjustified (e.g., more product can be removed without damaging forest resources), RM will deploy more resources to effectuate further cleanup. This process will be repeated until the assessment confirms that cessation of removal efforts is justified. Mr. Bearzi's assessment will be documented in a Corrective Action Report.
4. The Corrective Action Report will document all corrective actions taken, information not available at this writing (e.g., amount of product released), and a recommendation of whether or not work should be considered complete, or is additional phases of work should be executed. Such additional phases could include, but not be limited to, sampling and analysis of environmental media, restoration of forest resources, enhancements or restoration of the stream channel, or monitoring. RM will submit the Report within 30 days of confirmation of cessation of removal efforts in #3 above.
5. RM will make a showing to the New Mexico Environment Department Hazardous Waste and Solid Waste Bureaus as to the nonhazardous nature of the retrieved spilled product. Retrieved product and materials will be temporarily stored at the RM yard in Roswell, New Mexico, pending approval of a final disposal pathway. RM notes that the spilled product is not a hazardous waste, material,

or substance under state or federal law, or subject to NMDOT placarding. RM expects that a showing of process knowledge will suffice for such a waste determination.

6. RM will continue to provide updates by conference call to the U.S. Forest Service and NMED, and provide daily e-mail updates to government and elected officials, interested community members, and the media so long as interested persons express a desire to receive them.

R. Marley, LLC is committed to conducting this cleanup quickly, effectively, safely, and to the satisfaction of all relevant government entities. RM intends to be there every day until it is completed. Please reach out to me any time if you have questions, concerns, or suggestions.

Sincerely,

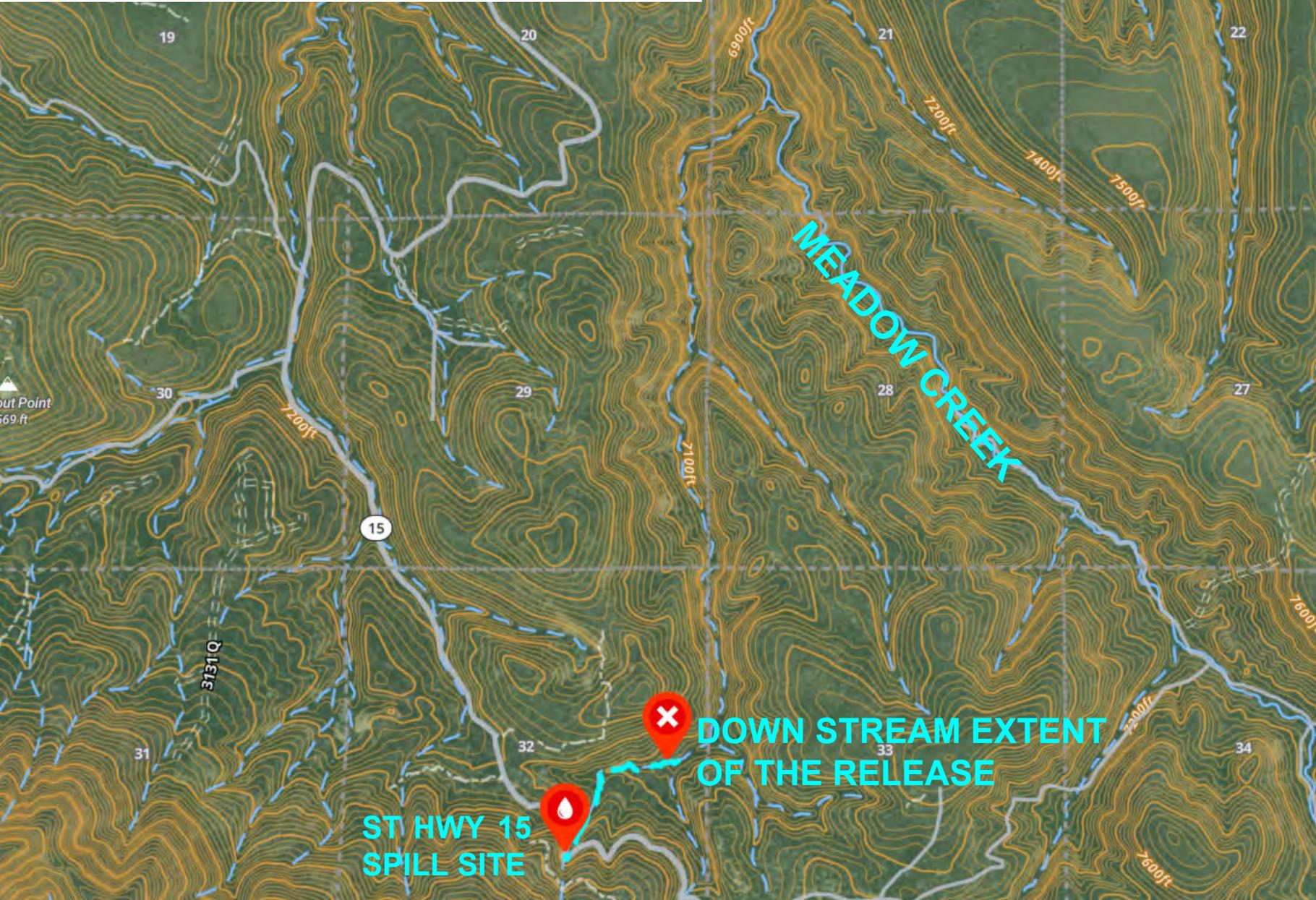


James P. Bearzi
BRZ Consulting

Cc: S. Lemon, NMED SWQB
S. Connolly, NMED HWB
H. Allsup, USFS Gila NF
J. Riggs, USACE
R. Marley, R. Marley, LLC

Att: Maps of Release Location
Photo Sheets
HFE-100P Safety Data Sheet

RELEASE SITE AFFECTED AREA



**State Highway 15 Spill
Photo Record**



Photograph 1: Accident site on SH15. September 26, 2022



Photograph 2: Wrecked tanker across drainage on SH15. September 26, 2022.

**State Highway 15 Spill
Photo Record**



Photograph 3: Daily tailgate meeting. Note boots, gloves, and bags.



Photograph 4: Roll-off bin for recovered product.

**State Highway 15 Spill
Photo Record**



Photograph 5: Spilled product in drainage (black). Water is brown due to storm runoff and stream siltation not related to spill.



Photograph 6: Spilled material (black) on stream bed cobbles and bank.

**State Highway 15 Spill
Photo Record**



Photograph 7: Spilled material (black) in globules adjacent to stream.



Photograph 8: Drainage at bankfull on October 8.

**State Highway 15 Spill
Photo Record**



Photograph 9: Natural check dam enhanced with forest materials.



Photograph 10: Natural check dam enhanced with forest materials and chicken wire.

1. Identification

Product identifier HFE-100P
Other means of identification None.
Recommended use Not available.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Manufacturer: Ergon Asphalt & Emulsions, Inc.
Address: 2829 Lakeland Drive
Jackson, MS 39232
Website: www.ergonasphalt.com
Telephone: 1-800-222-7122 (Customer Service)
E-mail: sds@ergon.com
24 hour Emergency (CHEMTREC): North America 1-800-424-9300; International 1-703-527-3887

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.
Hazard statement The mixture does not meet the criteria for classification.
Precautionary statement
Prevention Not applicable.
Response Not applicable.
Storage Not applicable.
Disposal Not available.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Vapors containing hydrogen sulfide may accumulate during storage or transport. HYDROGEN SULFIDE (H₂S) can be harmful or fatal if inhaled.

3. Composition/information on ingredients**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
ASPHALT		8052-42-4	55 - 75
WATER		7732-18-5	30 - 50
HYDROCHLORIC ACID		7647-01-0	< 1

4. First-aid measures

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact If clothing sticks to the skin, do not remove. Lotion or hand cream may aid in the removal of asphalt. Wash contact areas with soap and water. If needed, seek medical attention.
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion	Rinse mouth. DO NOT induce vomiting. Get medical attention immediately. If ingestion of a large amount does occur, call a poison control center immediately.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.
Fire fighting equipment/instructions	ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray.
Specific methods	In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Ventilate area and avoid breathing vapors or mist. For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Use only in well-ventilated areas. Hydrogen sulfide, a very highly toxic gas, may be present with this material. Keep face clear of tank and/or tank car openings. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.
Conditions for safe storage, including any incompatibilities	Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Do not allow material to freeze.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
HYDROCHLORIC ACID (CAS 7647-01-0)	Ceiling	7 mg/m ³
		5 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
ASPHALT (CAS 8052-42-4)	TWA	0.5 mg/m ³	Inhalable fraction.
HYDROCHLORIC ACID (CAS 7647-01-0)	Ceiling	2 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
ASPHALT (CAS 8052-42-4)	Ceiling	5 mg/m ³	Fume.
HYDROCHLORIC ACID (CAS 7647-01-0)	Ceiling	7 mg/m ³	
		5 ppm	

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible).

Skin protection

Hand protection

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Other

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact. Plastic or rubber gloves, apron and boots.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Brown to black in color.

Physical state

Liquid.

Form

Liquid.

Color

Black.

Odor

Tar-like

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

212 °F (100 °C)

Flash point

> 212.0 °F (> 100.0 °C) Cleveland Open Cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 0.3 %

Flammability limit - upper (%) 10 %

Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 1 mm Hg @ 20 C 0.00001 hPa estimated
Vapor density	> 1
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not miscible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	500 °F (260 °C)
Decomposition temperature	Not available.
Viscosity	1500 cP
Other information	
Density	8.20 lb/gal
Specific gravity	0.99 @ 4 C

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal temperature conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials. Do not overheat product.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product may yield sulfur dioxide, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Hydrogen sulfide.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Harmful in contact with eyes.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
HYDROCHLORIC ACID (CAS 7647-01-0)		
Acute		
Inhalation		
LC50	Rat	3124 ppm, 1 Hours

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Harmful in contact with eyes. None known.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization May cause skin disorders if contact is repeated or prolonged.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

ASPHALT (CAS 8052-42-4) 2B Possibly carcinogenic to humans.
HYDROCHLORIC ACID (CAS 7647-01-0) 3 Not classifiable as to carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged exposure may cause chronic effects.

Further information This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity Not expected to be harmful to aquatic organisms.

Product		Species	Test Results
HFE-100P			
Aquatic			
Crustacea	EC50	Daphnia	5240.9092 mg/l, 48 hours estimated
Fish	LC50	Fish	18939.3945 mg/l, 96 hours estimated
Components		Species	Test Results
HYDROCHLORIC ACID (CAS 7647-01-0)			
Aquatic			
Fish	LC50	Western mosquitofish (<i>Gambusia affinis</i>)	282 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations. No components are identified as hazardous wastes. Disposal recommendations are based on uncontaminated material.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company. Not applicable.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Avoid discharge into water courses or onto the ground.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.**15. Regulatory information****US federal regulations** All components are on the U.S. EPA TSCA Inventory List.**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

ASPHALT (CAS 8052-42-4) Listed.

HYDROCHLORIC ACID (CAS 7647-01-0) Listed.

US EPCRA Section 304 Extremely Haz. Subs. & CERCLA Haz. Subs.: Section 304 EHS reportable quantity

HYDROCHLORIC ACID (CAS 7647-01-0) 5000 LBS

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
HYDROCHLORIC ACID	7647-01-0	5000	500		

SARA 311/312 Hazardous chemical No**SARA 313 (TRI reporting)**

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

HYDROCHLORIC ACID (CAS 7647-01-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

HYDROCHLORIC ACID (CAS 7647-01-0)

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations** WARNING: This product contains a chemical known to the State of California to cause cancer.**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

ASPHALT (CAS 8052-42-4) Listed: January 1, 1990

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

ASPHALT (CAS 8052-42-4)

HYDROCHLORIC ACID (CAS 7647-01-0)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	11-14-2016
Version #	01
Further information	HMIS® is a registered trade and service mark of the NPCA.
NFPA ratings	Health: 1 Flammability: 0 Instability: 0
References	ACGIH EPA: AQUIRE database NLM: Hazardous Substances Data Base US. IARC Monographs on Occupational Exposures to Chemical Agents IARC Monographs. Overall Evaluation of Carcinogenicity National Toxicology Program (NTP) Report on Carcinogens ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience currently available.