



GLOBAL Encasement, Inc.

SAFETY DATA SHEET GEI-FR Emulsion

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: **GEI-FR Emulsion**
Product Use: Asphalt Emulsion Fire Retardant Roof Coating
Product Description: Non-Fiber, Water-Based, Asphaltic Bentonite Clay Emulsion
Manufacturer: GLOBAL Encasement, Inc.
 701 E. Santa Clara St., Ventura, CA 93001
 Tel. # (800) 266-3982 / Fax (800) 520-3291
Contact #s:
Website Address: www.encasement.com

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification: Acute toxicity, oral – Category 4
 Skin corrosion/irritation – Category 1A, 1B, 1C, 2
 Serious eye damage/eye irritation – Category 1, 2A
 Acute toxicity, inhalation – Category 4
 Specific target organ toxicity, single exposure – Category 1
 Specific target organ toxicity, repeated exposure – Category 2
 Hazardous to the aquatic environment, chronic toxicity – Category 2

Signal Word: Danger

Hazard Statements:

Code	Hazard Statements	Category
H302	Harmful if swallowed	4
H314	Causes severe skin burns and eye damage	1A,1B,1C
H315	Causes skin irritation	2
H318	Causes serious eye damage	1
H319	Causes serious eye irritation	2A
H332	Harmful if inhaled	4
H370	Causes damage to organs	1
H373	May cause damage to organs through prolonged or repeated exposure	2
H411	Toxic to aquatic life with long lasting effects	2

Pictograms:



Precautionary statements

Prevention:

Code	Prevention	Category
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P264	Wash...thoroughly after handling.	1A, 1B, 1C, 1, 2, 4
P280	Wear protective gloves/protective clothing/eye protection/face protection. [As modified by IV ATP]	

Response:

Code	Response	Category
P302+P352	IF ON SKIN: Wash with plenty of soap and water.	2
P321	Specific treatment (see ... on this label).	1A, 1B, 1C, 1, 2
P362	Take off contaminated clothing and wash before reuse.	2
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	1A, 1B, 1C, 1
P332+P313	If skin irritation occurs: Get medical advice/ attention.	2
P337+P313	If eye irritation persists: Get medical advice/attention.	2A

Storage:

Code	Storage	Category
P405	Store locked up.	1A, 1B, 1C, 1
P404+P233	Store in a well-ventilated place. Keep container tightly closed.	3

Disposal:

Code	Disposal	Category
P501	Dispose of contents/container to...in accordance with local/regional/national/international regulation (to be specified).	1A,1B, 1C, 1, 2, 4

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Material or Component	CAS Number	% by Weight
Asphaltic bitumen, not cut-back	8052-42-4	34-39
Bentonite	1302-78-9	2-6
*Manganese II sulfate	7785-87-7	0.14-0.35
*Hydrochloric Acid, 10%	7647-01-0	0.1-0.3
*Hydrogen Peroxide solution	7722-84-1	0.1-0.2

**These components have been classified hazardous as above. However, since their levels in the mixture are below the cut-off values per GHS guidelines, their respective hazards will not be in effect for the mixture and will therefore not be declared.*

SECTION 4: FIRST-AID INFORMATION**Emergency First Aid Procedures and Description**

Eye Contact: Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from eyeball to ensure thorough rinsing. Get immediate medical attention.

Skin Contact: Itching or burning of the skin. Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Get immediate medical attention.

- Inhalation:** Remove exposed person from source of exposure to fresh air. If not breathing, clear airway and start cardiopulmonary resuscitation (CPR). Get medical attention immediately.
- Ingestion:** If ingested, do not induce vomiting unless directed to do so by a medical personnel. Get medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use dry chemical, foam or carbon dioxide to extinguish fire.

Unusual Fire and Explosion Hazards: This material has been tested to ASTM D-4206 standard and found not to sustain combustion.

Special Protective Action for Firefighters: Water should be used to cool fire-exposed containers, structures and to protect personnel. Use water to dilute spills and flush them away from sources of ignition. Do not flush down sewers or other drainage systems. Exposed firefighters must wear NIOSH approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment.
Keep people away from and upwind of spill/leak.
Material can create slippery conditions.

Environmental Precautions: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Methods of Cleaning Up: Contain spills immediately with inert materials (e.g. sand, earth).
Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid breathing dust, vapor or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Use personal protective equipment in handling and observe personal hygiene after use of the product.

Conditions for Safe Storage: **DO NOT FREEZE.** Keep containers tightly closed in a dry, cool and well-ventilated place.

Storage Period: 12 months

Keep container closed when not in use. Protect from freezing.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION

Component	CAS #	ACGIH TLV	OSHA PEL	NIOSH
Asphaltic bitumen, not cut-back	8052-42-4	0.5 mg/m ³	Not Available	
Bentonite	1302-78-9	Not Listed	Not Listed	Not Listed
Manganese II sulfate	7785-87-7	Not Available	Not Available	Not Available
Hydrochloric Acid, 10%	7647-01-0	TWA-5 ppm STEL-1ppm	TWA-5 ppm STEL-1ppm	TWA-5 ppm STEL-1ppm
Hydrogen Peroxide solution	7722-84-1	TWA-1 ppm STEL-1 ppm	TWA-1 ppm STEL-1.4 mg/m ³	TWA-1 ppm STEL-1.4 mg/m ³ IDLH-75 ppm

Engineering Controls:	Mechanical local exhaust ventilation at point of containment release.
Protective Measures:	Employees should wash their hands and face before eating, drinking or using tobacco products. Educate and train employees in the safe use and handling of this product. EMERGENCY SHOWERS AND EYE WASH STATIONS SHOULD BE AVAILABLE.
Eye/Face Protection:	Safety glasses with side-shields.
Skin Protection:	Impervious (Neoprene gloves).
Respiratory Protection:	Use only with ventilation to keep levels below exposure guidelines reported in this document. If not sure, and/or not able to monitor, use state or federally approved supplied air-respirator. Wear suitable respirator (MSHA/NIOSH approved or equivalent) where exposure limits are exceeded.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous black liquid
Odor:	Slight odor
Odor Threshold:	Not Available
pH:	8.96
Melting Point/Freezing Point:	Not available
Initial Boiling Point and Boiling Range:	Not available
Flash Point:	Not applicable (water based product), however, solid material will support combustion if water has been evaporated.
Evaporation Rate:	Not available
Flammability (Solid, Gas):	Not Available
Upper/Lower Flammability or Explosive Limits:	Not Available
Vapor Pressure:	Not available
Vapor Density:	Not Available
Relative Density:	8.68 lb/gal
Solubility:	Not available
Partition Coefficient: N-Octanol/Water:	Not Available
Auto-Ignition Temperature:	Not Available
Decomposition Temperature:	Not Available
Viscosity:	120 KU

Note: The above data are typical values and must not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY INFORMATION

Reactivity: Non-reactive.

Chemical Stability: Stable.

Possibility of Hazardous Reactions: None known.

Conditions/Materials to Avoid: No known materials to avoid.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition: By Thermal decomposition: carbon monoxide, carbon dioxide, oxides of nitrogen (NOx), other potentially toxic fumes, and dense black smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:

Component	Acute Oral	Acute Dermal	Acute Inhalation
Asphaltic bitumen, not cut-back	LD50 rat >5001 mg/kg	LD50: >2001 mg/kg (Rat)	LC50/4h/rat (dust/mist): >6.82 mg/l, 4hrs. (Rat)
Manganese II sulfate	LD50 rat - 500 mg/kg	Not available	LT EXP – 5 mg/ m ³ /8hrs.
Hydrochloric Acid, 10%	LD50 900 mg/kg (rabbit)	LC50 1108 ppm/1hr (mouse) LC50 3124 ppm/1hr (rat)	Not available
Hydrogen Peroxide solution	LD50 >225 mg/kg bw (rat) - 50% Solution LD50 >1193 mg/kg bw (rat) - 35% Solution LD50 >1026 mg/kg bw (rat) - 70% Solution	LD50 >2000 mg/kg bw (rabbit) - 35% Solution LD50 >9200 mg/kg bw (rabbit) - 70% Solution	LC50 >170 mg/ m ³ (rat)/4hrs. - 50% Solution Hydrogen peroxide vapors: LC50 9400 mg/ m ³ (9 mouse 5-15 minutes) Hydrogen peroxide vapors: LC50 2160 mg/ m ³ (9 mouse)

Skin Corrosion/Irritation:

Asphaltic bitumen, not cut-back	Heated asphalt can cause burns to the skin.
Manganese II sulfate	Not available.
Hydrochloric Acid, 10%	Through skin absorption.
Hydrogen Peroxide solution	Corrosive-causes severe burns.

Serious Eye Damage/Irritation:

Asphaltic bitumen, not cut-back	Irritation due to fumes.
Manganese II sulfate	Not available.
Hydrochloric Acid, 10%	Very corrosive.
Hydrogen Peroxide solution	Serious eye damage.

Respiratory or Skin Sensitization:

Asphaltic bitumen, not cut-back	H ₂ S can evolve when this product is stored or handles at elevated temperatures; H ₂ S can cause respiratory irritation.
Manganese II sulfate	Not available.
Hydrochloric Acid, 10%	Dryness, reddening, blistering.
Hydrogen Peroxide solution	No

Carcinogenicity:

Asphaltic bitumen, not cut-back	No for asphalt emulsions.
Manganese II sulfate	Not available.
Hydrochloric Acid, 10%	No
Hydrogen Peroxide solution	Animal carcinogen with unknown relevance to humans (A3).

Mutagenicity:

Hydrochloric Acid, 10%	No
Hydrogen Peroxide solution	Not mutagenic.

Specific Target Organ Toxicity, Single Exposure:

Hydrogen Peroxide solution	May cause respiratory irritation.
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Specific Target Organ Toxicity, Repeated Exposure:

Hydrochloric Acid, 10%	Liver, respiratory/gastro tract, eyes and skin.
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SECTION 12: ECOLOGICAL INFORMATION

Chemical	Duration	Species	Value	Units
Asphaltic bitumen, not cut-back				
Manganese II sulfate	Not available			
Hydrochloric Acid, 10%	96 hrs. LC50	Fish	282	3g/L
Hydrogen Peroxide solution	96 hrs. LC50	Fish Pimephales promelas	16.4	mg/L
	72 hrs. LC50	Fish Leuciscus idus	35	
	48 hrs. LC50	Daphnia pulex	2.4	
	24 hrs. LC50	Daphnia Magna	7.7	
	72 hrs. LC50	Algae Skeletonema costatum	1.38	
	21 dNOEC	Daphnia magna	0.63	

Persistence and Degradability, Bioaccumulative Potential, Mobility in Soil: Asphalt is estimated to have a slow rate of biodegradation. This product is not expected to bioaccumulate through food chains in the environment. Analysis for ecological effects have not been conducted on asphalt (no cut-back). Spills into waterways maybe harmful to organisms and bottom feeders.

Not available for other components and mixtures in the products listed.

SECTION 13: DISPOSAL INFORMATION

Environmental Precautions: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental laws.

Empty Container Precautions: Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

SECTION 14: TRANSPORTATION INFORMATION

UN Number: Not applicable
 UN proper Shipping Name: Not regulated
 Transport Hazard Class: Not regulated
 Packing Group: Not applicable
 Environmental Hazards: Unknown
 Land Transport (DOT): Not regulated
 Sea Transport (IMDG): Not regulated
 Air Transport (ICAO/IATA): Not regulated
 Special Precautions: No data available

SECTION 15: REGULATORY INFORMATION

Unites States TSCA Inventory (US.TSCA): All components of this product are in compliance with the inventory listing requirement of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

SARA Reporting Requirements: This product is not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: NONE

SARA 311/312

Acute Health: Yes **Chronic Health:** No **Fire :** Yes **Reactivity:** No

Proposition 65: This product contains a chemical known to cause cancer or reproductive toxicity.

Chemical Name	CAS Number
Asphaltic bitumen, not cut-back	8052-42-4

Other Information: All of the components of this product are listed or exempt from listing of the Chemical Inventories of the following countries: Australia (AICS), Japan (MITI and ENCS), Korea (ECL), Philippines (PICCS) an Swiss Giftliste List of Toxic Substances.

SECTION 16: OTHER INFORMATION

Prepared By: GLOBAL Encasement, Inc.
Customer Service Department

Revision Date: Jan 10, 2019

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Version #: 4

This SDS adheres to the standards and regulatory requirements of the United States and has been written under the guidance of the Globally Harmonized System of Classification and Labeling of Chemicals.

Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DOT	Department of Transportation
EPA	Environmental Protection Agency
GHS	Globally Harmonized System (of Classification and Labeling of Chemicals)
ICAO	International Civil Aviation Organization
IATA	International Air Transportation Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal Concentration STEL Short Term Exposure Limit
LD50	Median Lethal Dose or Lethal Dose, 50 %
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety
OSHA	Occupational Safety and Health Administration
SARA	Superfund Amendments and Reauthorization Act
TRI	Toxic Release Inventory
U.S. (TSCA)	Toxic Substances Control Act
WHMIS	Workplace Hazardous Materials Information System

The information in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. The information relates only to the specific material designated and may not be valid for such material used in combination with or any other material in any process, unless specified in the test.

End of Safety Data Sheet