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		Date: Feb 7th /2024
<b>WATER-BASED ASPHALT EMULSION</b>		Code:

## SECTION 1: Product Identification

<b>NAME OF GOOD:</b>	WATER-BASED ASPHALT EMULSION
<b>REFERENCE:</b>	CRR-1; CRR-2; CRR-1m; CRR-2m; CRM; CRM-m; CRL-0; CRL-1; CRL-1h; CRL-1hm
<b>UN NUMBER:</b>	UN 3082
<b>UN DESCRIPTION:</b>	Miscellaneous Hazardous Substances and Objects, Including Hazardous Substances to the Environment
<b>CONTACT DETAILS:</b>	Mr. Sergio Gómez de La Vega
<b>PHONES:</b>	+58 414 7408321 + 1 786 5580118

## SECTION 2: Hazard Identification

### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

#### EMS Classification

Skin corrosion or irritation:	Category 1
Serious eye injury or irritation:	Category 2A
Skin sensitization:	Category 1
Specific toxicity to certain organs - single exposure:	Category 3
Specific toxicity to certain organs - repeated exposures (inhalation):	Category 2 (Respiratory system, Central nervous system)
Specific toxicity to certain organs - repeated exposures (Skin):	Category 2


#### Elements of the WMS Label. Hazard Pictogram



**Words of Warning:**                    **ATTENTION**

<b>Danger Indications:</b>	H315 Causes skin irritation.
	H317 May cause an allergic skin reaction.
	H319 Causes severe eye irritation.
	H335 May irritate the airways
	H336 May cause drowsiness or vertigo.
	H373 May cause organ damage after prolonged or repeated exposure in contact with the skin.
H373 May cause organ damage after prolonged or repeated exposure if inhaled	

<b>Prevention</b>	P260 Do not breathe dust/ smoke/ gas/ mist/ vapors/ aerosol.
	P264 Wash the skin thoroughly after handling.
	P271 Use only outdoors or in a well-ventilated place.
	P272 Contaminated work clothes may not be removed from the workplace.

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	P280 Wear gloves/goggles/protective mask
<b>Intervention</b>	P302 + P352 IN CASE OF SKIN CONTACT: Wash with plenty of water.
	P304 + P340 + P312 IN CASE OF INHALATION: Transport the person outdoors and keep him in a position that facilitates breathing. Call the poison control center or a doctor if the person is unwell.
	P305 + P351 + P338 IN CASE OF EYE CONTACT: Rinse carefully with water for several minutes. Remove contact lenses, if worn and easy. Continue clarifying.
	P314 Consult a doctor in case of discomfort.
	P333 + P313 In case of irritation or rash: Consult a doctor.
	P337 + P313 If eye irritation persists: Consult a doctor.
	P362 + P364 Remove contaminated garments and wash them before using them again.
<b>Storage</b>	P403 + P233 Store in a well-ventilated place. Keep the container tightly closed.
	P405 Lock and key.
<b>Elimination</b>	P501 Dispose of the contents/container in an authorized waste disposal plant.

### Other Dangers

The dangers associated with potential health effects are as follows:

**Inhalation:** Inhalation of toxic products is not likely, when water vapor is initially released, except in hot that other organic products would be released.

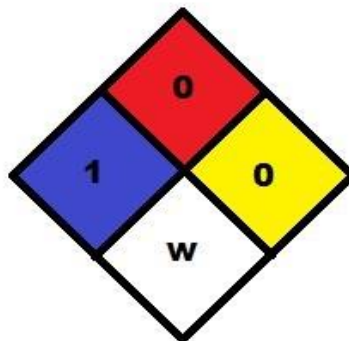
**Ingestion:** Irritation of the intestine may occur and cause vomiting with the associated potential danger of aspiration. **LD50** (asphalt)>5-15g/Kg (oral-rat).

**Skin:** It can present a danger under poor hygienic conditions.  
The situation can be made worse by the ultraviolet rays of sunlight.  
**LD50** (asphalt)>2g/Kg.

**Eyes:** Splashes of the product on the eyes can cause eye irritation.


According to the NFPA, the associated hazards are as follows:

**Health:** 1  
**Flammability:** 0  
**Instability:** 0



**CLASS:** 9. Miscellaneous Hazardous Substances and Articles, Including Substances Hazardous to the Environment

**OTHER DANGERS:** None Known

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### SECTION 3: Composition of components

#### **Chemical Description**

Asphalt emulsion consists of the following components:

**ASPHALT CEMENT OR ASPHALT.** It is the main component of emulsion; it is present in a percentage that varies between 57 and 65% of it. Asphalt is a viscous fluid at high temperature, composed essentially of hydrocarbons of high molecular weight soluble in carbon sulfide, there are natural asphalts mostly obtained in refinery as a product of the distillation of certain crude oil.

**WATER.** Component of great importance in the manufacture of ASPHALT EMULSIONS, and is approximately 40% of the EMULSION, for water the presence of calcium and magnesium must be controlled as they affect the chemical properties.

**EMULSIFIER OR EMULSIFIER.** Its main function is to stabilize and prevent the coalescence or breakage of the EMULSION (union of asphalt cement globules after the grinding process). That is, it is a chemical compound that modifies the surface or interfacial tension of asphalt globules, also supplying positive charge.

**ACID.** The normal pH of the water ranges between 6 and 8, the emulsifying water mixture at the time of manufacture of the emulsion must have a pH in a range of 1.8 to 2, an effect that is achieved by the application of hydrochloric acid

### SECTION 4: First Aids

**Ingestion:** If the victim is conscious, supply 1 or 2 glasses of water to dilute the material. Do not induce vomiting. Keep the victim semi-seated and warm. See your doctor. If the victim is unconscious, do not supply anything orally, be vigilant if vomiting occurs to place the victim on his side, preventing him from choking on his own fluids.


**Inhalation:** Breathe fresh air and if discomfort persists request medical help.

**Skin:** Quickly remove excess product. Thoroughly wash the contaminated area with plenty of soap and water for at least 15 minutes. Get medical attention if there is irritation.

**Eyes:** Wash immediately with plenty of water at low pressure and warm preferably, for at least 15 minutes. During washing, separate the eyelids to facilitate the penetration of water. Do not try to neutralize with chemical agents or drops without a doctor's order. Get medical attention quickly.

Make sure that the people in charge of applying first aid are not at risk (remove the source of contamination and use appropriate protective equipment).

**Note to Doctor:** Provide asymptomatic treatment

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## SECTION 5: Fire Measures


- Extinguishing media:** Foam and dry chemical powder. Carbon dioxide, sand and earth can be used to control fires of small magnitude. The foam should be gradually shed in order to form a mantle on the surface of the burning liquid. When carbon dioxide or dry chemical powder is used, turning back should be avoided (consider the wind direction for proper application).
- Combustion products:** Toxic gases produced in fire such as carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and hydrogen sulfide (H<sub>2</sub>S)
- Specific hazards:** The product, the containers containing them can explode when heated to high temperatures. Vapors can form explosive mixtures with air if the emulsion contains solvents. Toxic fumes are produced in case of fire. Be careful when heating it to temperatures above 85°C as the material will react violently by projecting material.

## SECTION 6: Measures in case of Accidental Spillage

- Special Precautions:** Evacuate the fire area by 25 to 50 meters in all directions. If the product leaks, stop it before trying to put out the fire, if you can safely do so. Water can be ineffective in extinguishing fire, given the low flash point of the product. Approach the fire in the same direction as the wind. For mass fires use nozzles with supports. Normal firefighter clothing provides protection for this product.
- Individual precautions:** For people who are not part of the emergency care team, evacuate to a safe and ventilated place  
For emergency personnel wear protective clothing against chemicals.
- General:** Remove possible sources of ignition. Isolate the spill area and restrict access. For small spills, absorb the emulsion / asphalt spilled with inert absorbent material and large spills with inert materials.
- Any spill will be immediately reported to the respective Government Agencies, in whose jurisdiction the incident occurs.

### Preservation of the environment

- Environment:** Prevent spraying or dumping into drains, ditches or rivers using sand, soil or any other appropriate barrier to stop accidental spills. If any of the aforementioned accidents inevitably occur, notify the relevant authorities.

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## SECTION 7: Handling and Storage

**General:** Asphalt emulsion is normally stored in vertical metal tanks without thermal insulation. The site arranged for storage must have the necessary safety elements and comply with the environmental provisions for the handling of this type of hydrocarbon. Do not increase its temperature near 75°C, since the product may lose its consistency characteristics.

**Use:** Take the necessary precautions to handle the material. Do not allow the product to come into contact with the skin.

**Storage:** Use all technical controls and personal protective equipment. During all emulsion loading or unloading operations, it should be kept in cool, dry, well-ventilated areas, away from open flames and any source of ignition.

Although they are stable products, care must be taken when heating them or mixing them with liquid asphalt at high temperatures because it can react violently by evaporating water.

## SECTION 8: Controls on Exposure and Personal Protection

**Engineering controls:** Keep the work area ventilated and tidy.

**Personal Protective Equipment (PPE)**

**Breathing protection:** Respiratory protection is not required under normal conditions. In cases of emergency, it is recommended to use self-contained breathing apparatus.

**Eye Protection:** When handling the product, wear safety glasses and eyes: face shields.

**Body Protection:** To avoid contact with the skin it may be necessary to wear aprons or coveralls, masks and boots. Chemical-resistant gloves and insulating gloves should be used when handling hot material

## SECTION 9: Physical and Chemical Properties

**Physical condition:** Liquid brown colored at room temperature.

**Smell:** Characteristic.

**Solubility in water:** Total

**pH** 1.0 to 2.4


**Relative density (water = 1):** 1.0 – 1.18

## SECTION 10: Stability and reactivity

**Stability:** The asphalt emulsion is stable under normal conditions.

**Incompatibility:** Contact with fluorine, strong bases and oxidizing agents such as sulfates, chlorates, nitrates and peroxides should be avoided.

**Decomposition:** During use under normal conditions decomposition to hazardous materials is not expected

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## SECTION 11: Toxicological Information

**Carcinogenicity IARC Classification:** Not applicable

## SECTION 12: Ecological Information

**Ecotoxicity:** Not Available. Eco-toxicological data specifically for this product have not been determined

**Mobility:** It is not volatile. Not applicable

**Persistence/Durability:** Low biodegradability

**Bioaccumulation power:** Not Available

**Other effects:** Unknow

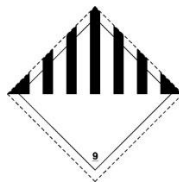
## SECTION 13: Waste Disposal

**Recommendations:** Product waste should be disposed of in perfectly identified containers or containers and after making use of companies in charge of final disposal. All waste will be disposed of in accordance with the regulations of the respective Government Agencies, in whose jurisdiction the incident occurs

## SECTION 14: Transport Information

The transport of this goods may be exempt depending on the nature of the operation.


Any vehicle transporting the emulsion must bear a label with hazard class **9** label and must measure at least 25 cm on the side placed in the form of a rhombus.



The colors should be vivid and the handwriting contrasting, easy to read the text MISCELLANEOUS DANGEROUS SUBSTANCES.

The COVENIN 3060-10 standard that identifies it and conditions its transport and use is the one developed by SENCAMER.

Do not transport together with Explosive products of the Divisions (**1.1, 1.2, 1.3, 1.5**), Toxic Gas (**2.3**), or Toxic Substances of the Division (**6.1**).

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Turn off the motor when charging and unloading (if you do not need to run the load pump).

Do not smoke in the vehicle or within 7.5 meters.

Close and secure sewers and valves, and verify that they are not leaking.

Number UN: **UN3082**  
Proper Shipping Name: **Liquid substance hazardous to the environment, n.o.s.\***

Hazards in WMS transport:



#### Road Transport

- **Land Transit Act and the DOT (Canada, USA and Mexico)**

<b>Official United Nations transport designation</b>	Environmentally hazardous substances, liquid, n.o.s.*
<b>Hazard Class</b>	9
<b>UN Number</b>	UN3082
<b>Packaging Group</b>	III

#### Sea Transport

- **IMDG Code:**

<b>Official United Nations transport designation</b>	Environmentally hazardous substances, liquid, n.o.s.*
<b>Hazard Class</b>	9
<b>UN Number</b>	UN3082
<b>Packaging Group</b>	III
<b>Ems</b>	F-D, S-U

#### Air Transport

- **ICAO/IATA:**

<b>Official United Nations transport designation</b>	Environmentally hazardous substances, liquid, n.o.s.*
<b>Hazard Class</b>	9
<b>UN Number</b>	UN3082
<b>Packaging Group</b>	III

### SECTION 15: Regulatory Information

COVENIN 3059-02 Hazardous Materials. Material Safety Data Sheet


COVENIN 2670-01 Emergency Response Guide

COVENIN 3060-02 Hazardous Materials Classification, Symbols and Dimensions of Identification Signs (1st Review)

COVENIN 3402-98 Hazardous Materials. Guidelines for Incident and Emergency Response

United Nations. Recommendations Concerning to Dangerous Goods Transport, 63<sup>th</sup> Review 2022

Venezuela Hazardous Materials, Substances and Wastes Law

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Environmental Law.  
Aeronautical Regulations of Venezuela (RAV 110)  
CANUTEC Emergency Response Guide 2020 In Spanish

## SECTION 16: Additional Information

This product (asphalt emulsion) is not regulated by the National Anti-Drug Office nor the Armed Forces as a precursor to drugs or explosives.

Note: The information contained in this safety sheet is for informational purposes. **Altex S.A.** does not assume responsibility of any kind for problems arising from the inappropriate use of the information contained herein

It applies all Venezuelan legislation on the environment and industrial safety.

**Material Safety Sheet Developed by:**

Angel Moreno  
Reg. INPSASEL: MIR116013866  
Secure Logistic Chain Advisors ACLS C.A.  
+58 414 2120300

