SECTION 1 - IDENTIFICATION

Product: RESINATOR™

Recommended use of the chemical and restrictions on use:

Uses: Heavy-Traffic Haul Road Stabilization, Dust Suppression, Soil Retention, Prime Coating, & Erosion Control.

List of advices against: None.

Details of the supplier of the Safety Data Sheet:

Momar, Inc.
1830 Ellsworth Industrial Dr.
Atlanta, Ga. 30318
404-355-4580
800-556-3967
www.momar.com

Emergency Telephone Number (INFOTRAC): North America: 1-800-535-5053
International: 1-352-323-3500

SECTION 2 – HAZARD IDENTIFICATION

Classification: This product contains no reportable hazardous components according to US Federal Regulations.
Signal Word: None required.
Hazard Statements: None required.
Pictograms: None required.
Precautionary Statements: None required.
Other Hazards: No information available.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Percent Weight

This product does not contain any hazardous components under OSHA 29CFR 1910.1200.

SECTION 4 – FIRST AID MEASURES

Eye Contact: Flush eyes with a large quantity of water for 15 minutes. If irritation continues, seek medical attention.

Skin Contact: No adverse effects expected. If irritation occurs, wash with water to remove product. Remove contaminated clothing and wash before reuse. If difficulties arise, contact a physician.

Inhalation: No adverse effects expected. Not an inhalation hazard.

Ingestion: No adverse effects expected under normal use. If large quantities are swallowed, contact a physician.

Most Important Symptoms and Effects:

Acute: May cause eye irritation with contact with product or mists. This is characterized by redness and swelling of the eye.

Delayed: Repeated or prolonged exposure to skin may cause dermatitis.

Indication of Any Immediate Medical Attention and Special Treatment Needed: None.

SECTION 5 – FIREFIGHTING MEASURES

Extinguishing Media: Product is nonflammable. Use extinguishing media appropriate for surrounding fire.

Specific Hazards Arising From the Substance or Product: Dried material capable of combustion.

Hazardous Combustion Products: High temperature steam and potentially oxides of carbon.

Protective Equipment and Precautions for Firefighters: Will not burn or support combustion. Use water spray to cool fire exposed containers and to flush spills. Spilled material may cause the floor to be slippery. Fire fighters wear self-contained breathing apparatus with full face piece in pressure demand or other positive pressure mode for surrounding fire.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Product is slippery. Wear appropriate personal protection equipment.

Environmental Precautions: Avoid getting concentrate into sewers or water ways.

Methods and Materials for Containment and Cleaning Up: Contain spill if possible. Absorb on mineral clay absorbent material. Shovel into DOT approved container for disposal.

SECTION 7 – HANDLING AND STORAGE

Precautions for Safe Handling: Avoid spills and clean them up immediately when they occur. Product is slippery. For industrial or professional use only. KEEP OUT OF REACH OF CHILDREN!

Conditions for Safe Storage: Keep container closed when not in use. Protect from freezing. Store at temperatures below 120°F. Water contamination should be avoided.

Incompatibilities: Contact with strong oxidizers.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits and Recommendations:

Chemical Name	OSHA PEL	ACGIH TLV	Other Exposure Limits

Engineering Controls: Normal ventilation.
Personal Protection Measures:
Respiratory Protection: Not normally required.
Skin and Body: Use of gloves is recommended.
Eye Protection: Safety glasses recommended.
Other Recommendations: None.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Opaque, dark brown liquid with low, sweet odor.
Odor Threshold: Not determined.
pH: 4.5 – 6.5
Freezing Point: 33°F
Boiling Point: 212°F
Flash Point: None.
Evaporation Rate (BUAC=1): Slower.
Flammability: Product is not flammable.
Flammability or Explosion Limits: **Upper:** Not applicable. **Lower:** Not applicable.
Vapor Pressure: Not determined.
Specific Gravity: 1.015
Solubility in Water: Emulsifies.
Solubility in Other Solvents: Not determined.
Partition Coefficient (n-octanol/water): Not determined.
Auto-ignition Temperature: Not applicable.
Decomposition Temperature: Not determined.
Viscosity: 1500 –2900 cPs
Other Information: 64 – 68% non-volatile as active ingredients
32 – 36% volatile as moisture (water)

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.
Chemical Stability: Stable.
Possible Hazardous Reactions: None known.
Conditions to Avoid: None known.
Incompatible Materials: Strong oxidizers.
Hazardous Decomposition Products: Oxides of carbon.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Exposure:

Inhalation	Ingestion	Skin	Eye
		X	X

Physical, Chemical and Toxicological Effects:

Symptoms: May cause eye irritation with contact with product or mists. This is characterized by redness and swelling of the eye. Prolonged or repeated skin contact may cause irritation or dermatitis.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure:

Sensitization: Not a skin sensitizer.

Germ Cell Mutagenicity: No data available.

Carcinogenicity: This product has not been identified as a carcinogen or probable carcinogen by NTP, IARC, or OSHA, nor have any of its components.

Reproductive Toxicity: This product does not contain any known or suspected reproductive hazards.

Specific Target Organ Toxicity: Eye (Single Exposure).

Numerical Measures of Toxicity:

Product: Not determined.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

48-hour LC_{50} (*C. dubia*, a water flea - invertebrate aquatic crustacean): 198 mg/L
96-hour LC_{50} (*P. promelas*, a fathead minnow - vertebrate fish): 375 mg/L
96-hour LC_{50} (*O. mykiss*, a rainbow trout - vertebrate fish): 287 mg/L
7-day NOEC (*P. promelas*, a fathead minnow - vertebrate fish): 100 mg/L
7-day LOEC (*P. promelas*, a fathead minnow - vertebrate fish): 200 mg/L
7-day IC_{25} (*P. promelas*, a fathead minnow - vertebrate fish): 135 mg/L
7-day NOEC (*O. mykiss*, a rainbow trout - vertebrate fish): 75 mg/L
7-day LOEC (*O. mykiss*, a rainbow trout - vertebrate fish): 150 mg/L
10-day NOEC (*H. Azteca*, an amphipod crustacean): 7.8 mg/L
10-day LOEC (*H. Azteca*, an amphipod crustacean): 16 mg/L

Persistence and Degradability: Readily biodegradable per 40CFR 796.3200.

Bioaccumulation: Not determined.

Mobility: Not determined.

Other Adverse Effects: None known.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

Disposal of Wastes: Dispose of product in accordance with national and local regulations.

Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

Other Information: None.

SECTION 14 – TRANSPORTATION INFORMATION

DOT:

UN Number: Not listed.
Proper Shipping Name: Not regulated
Hazard Class: Not applicable.
Packing Group: Not applicable.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations:

TSCA: All ingredients of this product are listed in the TSCA inventory.

SARA 313: This product contains the following chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and Title 40 CFR 372.

Chemical Name	CAS Number	Percent Weight
None		

US State Regulations:

California: **This product contains the following chemical or chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm:** None.

SECTION 16 – OTHER INFORMATION

Issue Date: July 17, 2014
Revised Date: June 28, 2016

Health	Flammability	Reactivity	Personal Protection
1	0	0	B

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate at the time of publication, Momar, Incorporated makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Momar, Incorporated's control; and therefore, users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes; and they assume all risks of their use, handling, and disposal of the product or from the publications or use of, or

reliance upon, information contained herein. This information relates only to the product designed herein and does not relate to its use in combination with any other material or in any other process.

APPLICATION PROCEDURES (cont.)

Berm & Pile Dust Control

Erosion protection, long-term storage, etc.

Ground Inventory Goal = 0.05 gallons/square yard

A total of 250 gallons of Resinator should be applied to each surface acre over the course of two applications.

First Application - Add 150 gallons of Resinator to 1,000 gallons of water and apply the mixture over 1 acre. Allow an hour of drying time before doing the second coat.

Second Application - Add 100 gallons of Resinator to 1,000 gallons of water and apply the mixture over 1 acre. Allow 2 hours of drying time before allowing traffic.

Each application should start at the crown in the center of the pile and spiral out to the perimeter. Avoid traveling over the treated area as much as possible, especially on the final application. Concentrate application on steeper sloped areas.

Resinator can be used as a pre-treatment before a Mincryl™ X50 pile sealing application.

Hydro Mulch/Straw Tackifier:

Aids in adhesion to soil, and the darker color enhances incubation and germination when reseeding.

Level surfaces and gradual slopes (3:1 run-rise) with good top soil material

Application rate: 0.03 gallons/square yard

Steeper slopes (2:1 run-rise) with good top soil material

Application rate: 0.05 gallons/square yard

Prepare Resinator by mixing it well prior to adding it to the hydro mulch/straw tank. For level surfaces and gradual slopes, add 30 gallons of neat Resinator for every 1,000 square yards of tank volume. For steeper slopes, add 50 gallons of neat Resinator for every 1,000 square yards of tank volume. Apply mulch in the normal manner.

Erosion Control (No Straw or Mulch):

Slopes and banks without good top soil

Ground Inventory Goal = 0.10 – 0.15 gallons/square yard

Dilute Resinator at a rate of 1:4 with water (100 gallons of Resinator for every 400 gallons of water) and apply the solution over the area at a rate of 500 gallons per 1,000 square yards to achieve a ground inventory of 0.10 gallons per square yard. If more is required based on slope, soil conditions, and traffic conditions, then prepare a second application at the same dilution rate but only apply 250 gallons per 1,000 square yards. The second application should be performed on a separate day.

Road and Pad Stabilization:

Provides 4 to 6 inches of road base enhancement: improves compaction, improves compressive strength, reduces moisture susceptibility, increases cohesive properties of the aggregate, and reduces dusting and erosion

Ground Inventory Goal = 0.3 – 0.5 gallons/square yard

1. Position suitable base material into rows along either side.
2. Dilute Resinator at a rate of 1:4 with water, and apply the solution onto the surface in order to provide approximately 0.05 - 0.1 gallons of Resinator (0.25 - 0.5 gallons of diluted solution) per square yard.
3. Allow product to penetrate into the soil, then static rolling, or more preferably, vibratory rolling, will provide compaction.
4. Blade 1-2 inches of base material onto the treated surface.
5. Repeat steps 2 through 4 until all of the base material has been bladed onto the road bed and the desired volume of Resinator has been incorporated into the road bed.
6. Top coat the final compacted surface with a 1:4 dilution at a rate of 0.05 gallons per square yard.
7. Maintain with this same treatment on an as needed basis.

Tip: Check the moisture content of the road bed after each pass to ensure optimal moisture and compactibility. Adjust driving speed and compaction as needed.