



## **Polymer Modified Asphalt Emulsion Superior Surface & Dust Control**

Our Manufacturer developed Road Pro NT®, a polymer modified asphalt emulsion that reduces the human health risk and environmental exposure to polynuclear aromatic hydrocarbons (PAH's).

The polymers enhance the weatherability of the treated surface, and help to “lock-in-place” the hazardous constituents in the asphalt. Road Pro NT® also ensures that you are in compliance with the Clean Air Act regarding PM10 emission requirements...resulting in a polymer-modified dust controlled surface with **superior** strength.

### **Why RoadPro NT® Polymer Modified Asphalt Emulsion is Superior...**

Crude oil derived liquid asphalt is a complex soup of hydrocarbon compounds, the range of which depends entirely on the source of the crude oil. Liquid Asphalt is what's left after naphtha, gasoline, kerosene, heating oil, waxes and plastic feedstock have been taken out of a barrel of crude oil.

Today there is a huge variance in crude oil used to meet the insatiable demand for petroleum and all of its products. This means that ultimately refiners and asphalt plants have to take what they can get. The result is that the character of liquid asphalts available across the United States has changed dramatically since the 1970's. This is one reason that **polymer modification** has such an important value.

Asphalt used in an asphalt emulsion is a thermoplastic; it gets softer when heated and firmer when cooled. The asphalt will soften in the heat of summer resulting in ruts and tracks, and will harden in the winter, which leads to cracking. In the heat of sun, volatile compounds evaporate from the asphalt and the surface will oxidize and become brittle.

**Polymer modification** changes the flow properties of the liquid asphalt so it can stand up to the sun, wind, weather and traffic loadings.

**Polymer modification** is generating excitement and improved overall performance for customers because it improves dust control performance and surface life while reducing maintenance costs.

RoadPro NT® polymer modified asphalt delivers improved results because it:

- 1) Reduces low temperature stiffness which produces less thermal cracking
- 2) Improves fatigue resistance which fights raveling and stripping
- 3) Improves age hardening resistance which increases durability

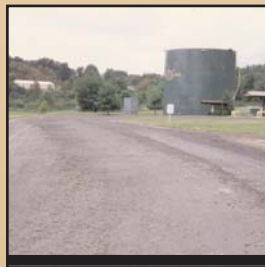
All of these attributes improve the overall performance of your dust control program.

RoadPro NT® Polymer Modified Asphalt is the number one choice for your economic, traffic and load demands.

*RoadPro NT® is proudly distributed in Africa and in Brazil by*  
**International Commerce Group, Inc.**

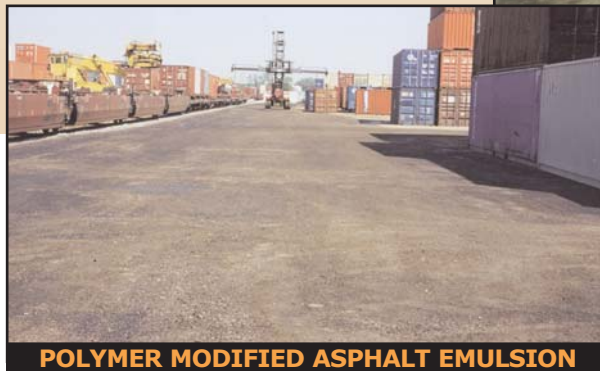
# Road Pro<sup>®</sup> NT

**Polymer Modified  
Asphalt Emulsion**



***Superior  
Surface & Dust  
Control***

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RoadPro NT<sup>®</sup> Polymer Modified Asphalt is the number one choice for your economic, traffic and load demands.



**Polymer Modified Asphalt Emulsion**

For more information, contact

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# ROAD PRO® NT

## MATERIAL SAFETY DATA SHEET

### SECTION I -- IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

**TRADE NAME:** ROAD PRO® NT  
**CHEMICAL NAME:** POLYMER EMULSION MODIFIED ASPHALT EMULSION SYSTEM  
**SYNONYMS:** MULTI-COMPONENT DUST SUPPRESSION SYSTEM  
**CAS REGISTRY NO.:** NONE - MIXTURE  
**FORMULA:** VARIABLE MIXTURE

### SECTION II -- COMPOSITION/INFORMATION ON INGREDIENTS

<u>NAME</u>	<u>%</u>	<u>CAS REG. NO.</u>
ACRYLIC & VINYL ACETATE POLYMER	<40%	NON-HAZARDOUS
ASPHALT, PETROLEUM	<30%	008052-42-4
WATER	>30%	7732-18-5

### SECTION III -- HAZARDS IDENTIFICATION

ASPHALT, PETROLEUM (FUMES)	Irritant
ACRYLIC & VINYL ACETATE POLYMER	Non-hazardous
WATER	Non-hazardous

### SECTION IV -- FIRST AID MEASURES

**EYES:** Flush eyes immediately with copious amounts of water for at least 15 minutes, occasionally lifting the upper and lower eye lids. Get medical attention immediately.

**INHALATION:** If overexposure occurs, remove individual to fresh air. If discomfort continues, seek medical attention.

**SKIN:** Clean skin with waterless type hand cleaner followed by soap and water. If irritation develops, seek medical attention.

**INGESTION:** If emulsion is swallowed do not induce vomiting. Treat symptomatically and get medical attention.

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**NEVER GIVE FLUIDS OR INDUCE VOMITING IF PATIENT IS UNCONSCIOUS OR HAVING CONVULSIONS.**

### **SECTION V -- FIRE FIGHTING MEASURES**

**FLASH POINT (TEST METHOD):** N/A In Emulsion State

**AUTOIGNITION TEMPERATURE:** N/A

**EXTINGUISHING MEDIUM:** Non Flammable in Emulsion State

**NOTE: IN ASPHALT STATE:** Small Fires - Use dry chemical CO<sub>2</sub>, Halon, Water Spray or Standard Foam.  
Large Fires - Use Water Spray, Fog or Standard Foam

**SPECIAL FIREFIGHTING PROCEDURES:** Non Flammable in Emulsion State. Material can splatter above 212°F. Dried polymer film can burn but will not support combustion.

**NOTE: IN ASPHALT STATE:** Move Vessel from fire area if you can do it without risk. Cool containers that are exposed to flames with water from the side until well after the fire is out. Stay away from ends of tank.

### **SECTION VI -- ACCIDENTAL RELEASE MEASURES**

**SPILL AND LEAK PROCEDURES:** Create dikes or ponds as soon as possible. Use earth, sawdust, or sand to make dikes or to use as absorbent. Upon absorption, material will revert to asphalt state and can be removed with absorption material. Keep spills out of sewers and open bodies of water.

### **SECTION VII -- HANDLING AND STORAGE**

**STORAGE:** Keep in a cool, dry, ventilated storage area and in closed containers. Minimize contact with air to prevent microorganism contamination and reduce the formation of skins in the surface.

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Avoid freezing conditions.

**HANDLING:** Handle in a well ventilated work space.

### SECTION VIII -- EXPOSURE CONTROL/PERSONAL PROTECTION

**RESPIRATORY PROTECTION:** Normally not needed, but if conditions warrant, use organic vapor respirators.

**VENTILATION LOCAL EXHAUST:** As needed to remove mists or vapors.

**EYE PROTECTION:** Chemical goggles or safety glasses with side shields.

**PROTECTIVE CLOTHING:** Protective gloves with impervious coating.

**OTHER:** Appropriate clothing to prevent repeated or prolonged contact with skin. Under normal handling conditions the risk of exposure to residual monomer is negligible.

### SECTION IX -- PHYSICAL AND CHEMICAL PROPERTIES

**BOILING/MELTING POINT @ 760 mm Hg:** 212°F

**VAPOR PRESSURE mm Hg @ 20° C:** N/D

**SPECIFIC GRAVITY OR BULK DENSITY:** (H<sub>2</sub>O = 1.00): 0.99 - 1.15

**SOLUBILITY IN WATER:** Miscible

**APPEARANCE:** Brown to light tan, low viscosity

**ODOR:** Slight petroleum odor

### SECTION X -- STABILITY AND REACTIVITY

**STABILITY:** Stable

**CHEMICAL INCOMPATIBILITY:** None

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**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal Decomposition may release harmful or toxic gases: carbon dioxide, carbon monoxide, oxides of sulfur, oxides of nitrogen, reactive hydrocarbons and hydrogen sulfide.

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** None

**CORROSIVE TO METAL:** N/A

**OXIDIZER:** N/A

## SECTION XI -- TOXICOLOGICAL INFORMATION

**Asphalt, petroleum (heated fumes) exposure limit: 0.50mg/m<sup>3</sup> 8-hour TWA (ACGIH)**

**Asphalt Emulsions have not been investigated as possible carcinogens.** However, Road Pro NT contains petroleum asphalt. IARC has determined that there is inadequate evidence that undiluted, air-refined asphalt is carcinogenic to experimental animals and there is only limited evidence that undiluted steam-refined and cracking-residue asphalts are carcinogenic to animals. **IRAC has concluded that there is inadequate evidence that asphalts alone are carcinogenic to humans.**

### EFFECTS OF OVEREXPOSURE

#### **INHALATION:**

Excessive exposure to fumes, vapors or mists may cause some respiratory discomfort or irritation of the mucous membranes. Asphalt when heated, releases various concentrations of hydrogen sulfide (H<sub>2</sub>S) gas. H<sub>2</sub>S is an extremely toxic and flammable gas that at low concentrations is irritating to the respiratory tract and has a rotten egg odor. Odor can not be relied on as means of detection because at higher concentrations H<sub>2</sub>S causes olfactory paralysis. Even short time exposure to concentrations of 500 - 1000 ppm may lead to unconsciousness, respiratory paralysis and death.

#### **SKIN:**

Prolonged or repeated contact with cool product may cause irritation.

#### **INGESTION:**

Emulsions may cause nausea and irritation of gastrointestinal tract.

## SECTION XII -- ECOLOGICAL INFORMATION

ENVIRONMENTAL STUDIES HAVE NOT BEEN PERFORMED TO DETERMINE THE EFFECT OF ASPHALT EMULSIONS ON THE ENVIRONMENT.

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ENVIRONMENTAL TOXICITY STUDIES PERFORMED ON POLYMERS SIMILAR TO THOSE CONTAINED IN THE ROAD PRO NT<sup>®</sup> SYSTEM INDICATE THAT THE POLYMERS IN THIS PRODUCT ARE ESSENTIALLY NON-TOXIC TO THE ENVIRONMENT.

### SECTION XIII -- DISPOSAL CONSIDERATIONS

#### WASTE DISPOSAL METHOD:

Emulsion can be mixed with any stabilizing material (e.g., rock, gravel or sand) in order to change its state from a liquid into a solid. This material can then be disposed of at an approved landfill.

### SECTION XIV -- TRANSPORTATION INFORMATION

D.O.T. PROPER SHIPPING NAME (49CFR172.101):	None
HAZARDOUS SUBSTANCE (40CFR116):	N/A
REPORTABLE QUANTITY (RQ):	None
D.O.T. HAZARD CLASSIFICATION (49CFR172.101):	None
D.O.T. LABELS REQUIRED (49CFR172.101):	None
D.O.T. PLACARDS REQUIRED:	None
POISON CONSTITUENT (49CFR173.343):	None
BILL OF LADING DESCRIPTION:	Emulsified Asphalt, liquid plastic, NOS
CC NO.:	N/A
UN/NA CODE:	N/A

### SECTION XV-- REGULATORY INFORMATION

EPA Hazard Class: None



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<b>OSHA Hazard Class:</b>	Irritant
<b>CERCLA Section 102 (a) Hazard Substance:</b>	None
<b>RCRA Hazardous Substance:</b>	None
<b>TSCA:</b>	All of the ingredients are on the TSCA (Toxic Substance Control Act) inventory or are not required to be listed on the TSCA inventory.
<b>California Proposition 65:</b>	WARNING: Asphalt contains a chemical know to the State of California to cause cancer and birth defects or other reproductive harm.
<b>WHMIS Classification:</b>	D2B - Skin or eye irritant

### **SECTION XVI -- OTHER INFORMATION**

#### **ABBREVIATIONS AND SYMBOLS:**

N.D. - Not Determined  
< - LESS THAN

N.A. - Not Applicable  
> - MORE THAN

N.T. - Not Tested