



# REJUVENITE A

## CATIONIC EMULSIFIED REJUVENATING AGENT

### PRODUCT DESCRIPTION

**REJUVENITE A** is a spray grade emulsified asphalt rejuvenating agent. It's unique formulation prolongs pavement life by restoring a pavement's original properties that have been lost through natural oxidation, loss of volatiles, effect of de-icing chemicals and other surface contaminants.

### GENERAL PRODUCT FEATURES

- Restores the physical and chemical properties, improving the low temperature Performance (PG) grade resulting in an increase in crack resistance in old existing asphalt concrete pavement
- Restores the aromatic fraction to the old existing asphalt concrete pavement binder that was lost due to oxidative field aging
- Does not cause continuous age softening of the old existing asphalt concrete pavement binder which could lead to increased rutting potential
- Can be combined with virgin asphalt to customize the emulsion to replace and rejuvenate the aged asphalt in a RAP mix (see REJUVENITE RAP)
- When added to RAP, the finished product can be used as a low volume surface mix. The surface should ideally be covered with a thin surfacing or fog coat.

### RECOMMENDED USE

**REJUVENITE A** can be used as an emulsified preservative seal which penetrates a pavement surface, and restores the original properties of the asphalt in concrete and helps to seal hairline cracks and fill surface pores which have developed due to age hardening in an asphalt concrete.

**REJUVENITE A** added to asphalt concrete pavement during or after heater scarification returns pavement to its original state by restoring its flexibility and thus "reversing" and delaying the aging process.

### SPECIFICATIONS AND TYPICAL RESULTS

TEST	TYPICAL DATA	SPEC RANGE	
		Min	Max
<b>Tests on Emulsion</b>			
SF Viscosity, 25°C, SFs	<b>22</b>	15	40
Sieve Test, 850 µm, %	<b>Pass</b>		0.10
Miscibility Test, .2N CaCl2	<b>Pass</b>	No coagulation	
Evap. Residue, 150°C, %	<b>61.1</b>	60	65
Particle Charge	<b>(+)</b>	<b>(+)</b>	
<b>Tests on Residue</b>			
Flash Point by COC, °C		200	...
Kin. Viscosity, 60°C, cSt	<b>115</b>	100	200
Asphaltenes (n-hept.), %	<b>0</b>	...	1.0
Saturates, (D2007), %	<b>22</b>	...	30

### TESTING PROCEDURES FOOTNOTE

There are a number of agencies which cite ASTM D2006 "Method of Test for Characteristic Groups in Rubber Extender and Processing Oils by the Precipitation Method" as a test protocol for determining the fractions of rejuvenating emulsion residues. This test method was withdrawn by ASTM in 1975 and was typically referred to as a Rostler-Sternberg analysis. Newer protocols (such as ASTM D2007, ASTM D4124, ASTM D2140, SARA analysis, etc.) are used for determining the fractional composition of oils. Such protocols are safer and more accurate than the old ASTM D2006.



**McASPHALT INDUSTRIES LIMITED**

8800 Sheppard Ave East T 416.281.8181 TF 1.800.268.4238  
Toronto, ON M1B 5R4 F 416.281.8842 E info@mcasphalt.com

**mcasphalt.com**  
ISO 9001/14001/45001

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### APPLICATION GUIDELINES

**REJUVENITE A** can be sprayed using a conventional asphalt distributor onto existing asphalt pavements. Prior to spraying, the product should be diluted with potable water to ~40 % residue (2 parts **REJUVENITE A** to 1 part water).

General application guidelines for diluted **REJUVENITE A** are between 0.3 – 0.5 L/m<sup>2</sup>, or as directed by the project engineer. Test runs might be required on specific pavement surfaces. The absolute minimum application rate should be 0.15 L/m<sup>2</sup>, and under no circumstances should the application rate exceed 1.0 L/m<sup>2</sup>. **REJUVENITE A** should not be applied if the existing pavement surface has low surface voids, shows signs of flushing or is coated by any type of asphalt sealer.

After application of **REJUVENITE A** on an existing asphalt pavement, the surface should be allowed to absorb most of the oils. This normally takes between 30 and 60 minutes, depending on the surface tightness and voids of the pavement. When no standing material remains on the surface, a light coat of sand (generally 0.5 – 1.0 kg/m<sup>2</sup>) should be applied. This is to prevent low skid resistance and slick spots on the pavement.

When used with heater scarifying, **REJUVENITE A** should be used undiluted. Core samples should always be analyzed and a full design should be done before construction to determine the exact dosage of **REJUVENITE A** to be applied.

The following performance guidelines should be consulted prior to application:

- AEMA – Restorative Seals using Emulsified Recycled Agents
- ARRA – Heater Scarification Guidelines
- Contact your local **MCA** Marketing representative for further instructions and more guideline application directions
- No heat should be applied on the **REJUVENITE A** emulsion when transported or sprayed.

### PACKAGING, STORAGE AND HANDLING

- 20 litre pail (5 gal pail)
- 205 litre drum (45 gal drum)
- Bulk Tanker

#### STORAGE

Keep in an original container or an approved alternative made from a compatible material, kept tightly closed when in use. Store in accordance with local regulations.

#### HANDLING

This product contains hazardous chemicals. Consult SDS prior to using and ensure safe usage and handling.

### CERTIFICATION OF QUALITY

**McAsphalt Industries Limited** is accredited to the quality standard **ISO 9001** and to the environmental standard **ISO 14001**.

Each lot of **REJUVENITE A** is produced using the strictest quality, safety and environmental guidelines. Each production lot is tested to ensure it meets or exceeds all performance requirements, and it is delivered with a Certificate of Analysis.

### PRODUCT SUPPORT

With the **MCA Advantage**, you get a partner and advisor who will consult with you about designs, specifications, technical services, processes and material selection. By developing innovative, custom-designed products that offer additional benefits, such as peak performance in unique conditions, improved field performance, greater environmental and health benefits, the **MCA Advantage** provides significant long-term cost savings, resulting in lower “total cost of ownership.”



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