

## **EROSION CONTROL**

### **PROCESS DESIGN OVERVIEW**

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#### **1 SCOPE**

Asphalt products can be used as a cost effective solution for Erosion control. The asphalt products can be sprayed as a protective cover to shield the soil from water and wind. Asphalt emulsions can be used as a tackifier in mulching systems.

#### **1.1 DEFINITIONS**

Erosion control is the practice of preventing or controlling wind or water erosion in agriculture, land development, coastal areas, riverbanks and construction. Effective erosion controls are important techniques in preventing water pollution, soil loss, wildlife habitat loss and human property loss.

#### **2 MATERIALS**

##### **2.1 Asphalt Emulsions:**

Typically erosion control emulsions are economical, environmentally friendly emulsions that are formulated with a combination of special wetting agents to aid in penetration and interlocking of the soil. These emulsions are environmentally friendly and allow or in some cases, aid in; the natural growth of the vegetation, depending on the application.

##### **Organic Emulsions:**

Organic emulsions can be made from tree extracts and oil seeds. These emulsions are environmentally friendly and can be formulated with a number of additives such as: wetting agents, water repellents and anti-rust inhibitors.

#### **3 DESIGN CRITERIA**

In designing a product for use in erosion control we have focused on the following key factors: They have to be ecologically safe with low or no odor, non-hazardous, non-toxic, non-flammable and non-corrosive. Products need to meet MOE air quality standards for PM10 and PM2.5.

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### 4 RECOMMENDED PERFORMANCE GUIDELINES

In order to gain proper erosion control for your project or application be sure to follow the guidelines below:

- Evaluate the material to be protected
- Determine wants and needs of the owner
- Based on the assessment choose the appropriate system
- Confirm engineering parameters utilizing a certified laboratory
- Develop storage and handling procedures.
- Develop application, QC and QA procedures.

### 5 RESOURCES

1. "The Asphalt Handbook", 7<sup>th</sup> Edition, Asphalt Institute, Lexington, Kentucky, 2007
2. "Asphalt in Pavement Maintenance" MS-16, 3<sup>rd</sup> Edition, Asphalt Institute, Lexington, Kentucky, 1997
3. "Dust Control for Unpaved Roads", Series 10, National Guide to Sustainable Municipal Infrastructure.



#### **McASPHALT INDUSTRIES LIMITED**

8800 Sheppard Avenue 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