



THE CHEMICAL DIVISION OF COLAS

# MDC

## Product Information

MDC is a special blend of fatty nitrogen compounds designed for emulsions used in cold mixes like microsurfacing and grave emulsion.

## Storage & Handling (refer to Chemoran guide)

MDC must be protected from exposure to water. When mixed with water, a chemical reaction can occur which leads to a reduction in some of the emulsifier's properties. Water will sink to the bottom of the emulsifier container and form a clouded viscous layer. The clear unaffected emulsifier should be carefully decanted off without disturbing this layer and used as soon as possible.

MDC must be protected from long-term exposure to atmospheric moisture. This takes place slowly on the emulsifier surface exposed to moist air. It is identified as a viscous skin which may lead to a reduction of product performance.

## Formulation Example (refer to CST Technical Note N°159)

Application	Bitumen Type & Dosage	MDC Dosage	Salt Dosage	Aqueous Phase pH
Micro surfacing	60% naphthenic	10-16 kg/t	1 kg/t	2.0-2.5
Grave emulsion	60% paraffinic	5-12 kg/t	1 kg/t	2.0-2.5

## Table of Parameters

Characteristics	Methods	Specification	Typical Values
Physical state at 20°C	Visual test	Liquid	-
Alkalinity index (mgHCl/g)	MOPCST PC-006	>215	240
Flash point, closed cup (°C)	EN 22719	>100	-
Cloud point	CHEM 003	-	<0°C

Bulk storage tanks are more likely to experience this due to long storage periods and open vents. Smaller containers with small amounts of emulsifiers can be damaged on long storage especially if they are not fully sealed.

MDC must be protected from frost. Continued cold weather storage can lead to major increase in the viscosity and some precipitation may take place at temperatures below the cloud point. If this occurs MDC should be heated or agitated thoroughly to insure a homogeneous mixture before use.

## Packing

IBC of 960kg

Temp.	Density	Viscosity
°C	(g/cm <sup>3</sup> )	(mPa.s)
15	-	610
20	0.972	430
30	0.965	220
40	0.958	115
50	0.951	70