



CHEMORAN

THE CHEMICAL DIVISION OF COLAS

# CTAL

## Product Information

Cationic Emulsifier for slow setting bitumen emulsions and cold mix applications.

## Storage & Handling

CTAL 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.

CTAL 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 clear skin which may lead to a reduction of product performance.

## Formulation Example

Application	Bitumen Type & Dosage	CTAL Dosage	Aqueous Phase pH
Micro surfacing / slurry	60-65% paraffinic or naphthenic	3-6 kg/t	2.0-2.5
Grave emulsion	-	6-12 kg/t	2.0-2.5

## Table of Parameters

Characteristics	Methods	Specification	Typical Values
Physical state at 20°C	Visual test	Liquid	-
Total amine value (mgKOH/g)	MOPCST PC-006	>430	470
Flash point (°C)	EN 22719	>100	-
Cloud point (°C)	-	-	<10°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.

CTAL 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 CTAL should be heated or agitated thoroughly to insure a homogeneous mixture before use.

## Packing

170kg drum / IBC of 900kg / Bulk

Temp.	Density	Viscosity
°C	(g/cm <sup>3</sup> )	(mPa.s)
10	0.8996	-
20	0.891	91.7
30	0.883	49.5
40	0.875	28.3
50	0.868	14.5