

# CSS-1hP Product Data Sheet



## Description and Physical Properties

CSS-1hP is a cationic, polymer modified asphalt emulsion designed for use in micro-surfacing. The emulsion is formulated for the project aggregate. The micro-surfacing process mixes the emulsion, aggregate and additives in a specially designed machine, which also places the mixture. The polymer and special formulation gives a quick curing and durable maintenance surface that seals and protects the pavement and improves skid resistance. Micro-surfacing may also be used to correct minor rutting.

### Physical Properties:

- C.A.S. Number: 8052-42-4
- Boiling Point (F): 212°F
- Specific Gravity (H<sub>2</sub>O=1): 1.01
- Percent Volatile: 0
- Solubility In Water: Soluble
- Appearance and Odor: Brown Liquid, Faint Petroleum Odor
- Flammability: Non-flammable in water-based state

### Recommended Use

A laboratory design should be performed for each micro-surfacing project. For all uses, the air and pavement temperatures at construction should be sufficiently high to allow the emulsion to fully cure. TxDOT states that no asphalt binders should be applied during rain or imminent threat of rain.

### Typical Physical Properties

Property	Test Procedure	Min	Max
Viscosity, Saybolt Furol, 77°F, sec	T72	20	100
Sieve test, %	T59	-	0.1
Cement mixing, %	T59	-	2.0
Storage stability, 1 day, %	T59	-	1
Particle charge	T59	Positive	
Distillation test:	T59		
Residue by distillation, % by wt.		62	-
Oil distillate, % by volume of emulsion		-	0.5
Tests on residue from distillation:			
Penetration, 77°F, 100 g, 5 sec.	T49	55	90
Softening Point, °F	T53	135	
Solubility in trichloroethylene, %	T44	97	-
Ductility, 77°F, 5 cm/min., cm	T51	70	-

### Storage and Handling

The water-based emulsion should not be exposed to freezing temperatures or overheating. The cationic emulsion is a chemically stabilized system, so care should be taken not to upset the chemical balance with contamination by chemicals, over-exposure to air, or adverse mechanical or thermal conditions. Before being filled, tanks and trucks should be examined for possible contaminants. Recommended use and storage temperatures are given in the table.

Recommended Temperatures	Min	Max
Storage	50°F	140°F
Application	50°F	130°F

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