

MS-2 Product Data Sheet

Description and Physical Properties

MS-2 is a medium setting, anionic water-based asphalt emulsion for use primarily in asphalt and aggregate mixtures, but is also used in a wide variety of other applications such as base stabilization and full depth reclamation. It is supplied in bulk.

Physical Properties:

- C.A.S. Number: 8052-42-4
- Boiling Point (F): 212°F
- Specific Gravity (H2O=1): 1.01
- Percent Volatile: 0
- Solubility In Water: Soluble
- Appearance And Odor: Brown Liquid, Faint Petroleum Odor

Recommended Use

MS-2 can be mixed with aggregate cold with a portable pugmill at the job site or in-place on the roadway, or warm at a central plant. It may be placed with a paver or worked onto the pavement with a blade or reclaimer.

Specifications Conforms to Texas Department of Transportation Specifications-Item 300.2:

Property	Test Procedure	Min	Max
Viscosity, Saybolt Furol, 77°F, sec	T72		
Viscosity, Saybolt Furol, 122°F, sec	T72	100	300
Sieve test, %	T59	-	0.1
Demulsibility, 35 ml of 0.02 N CaCl ₂ , %	T59	-	30
Storage stability, 1 day, %	T59	-	1
Freezing test, 3 cycles ¹	T59	Pass	
Distillation test:	T59		
Residue by distillation, % by wt.		65	-
Oil distillate, % by volume of emulsion		-	0.5
Tests on residue from distillation:			
Penetration, 77°F, 100 g, 5 sec.	T49	120	160
Solubility in trichloroethylene, %	T44	97.5	
Ductility, 77°F, 5 cm/min., cm	T51	100	

¹. Applies only when the Engineer designates material for winter use.

Storage and Handling

The water-based emulsion should not be exposed to overheating. The 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	185°F
Application	110°F	160°F

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