

Commercial Chemicals  
Analytical Report #247

To: M. T. Pike - 236-2A  
From: L. D. Winter - 236-2B  
Subject: CS-2070/CS-2151 Solubility  
Date: August 3, 1981



Reference: Commercial Chemical Analytical Request #16565

Introduction:

A light yellow liquid labeled CS-2151 and a light yellow solid labeled CS-2070 were received from V. Pothapragada November 18, 1980. The CS-2070 was reported to be the dried solid from CS-2151 which is 25% solids in water. The samples were submitted for PMN characterization. Since CS-2191 is 25% CS-2070 in water and pH was 6.7, no further solubility determinations were made in water. Observations were made at pH 4 and 9, and in some organic solvents.

Experimental:

Amounts of CS-2070 were placed in vials and various solvents added to make a 5% solution.

For the aqueous buffer systems, CS-2070 was placed in vials and sufficient buffer added to be equivalent to 25% solids. Buffers used were pH 4.01, 7.0 and 9.0. After mixing for several hours and standing overnight, observations were made and the CS-2070 soluble in pH 4 and 9 were determined.

Results:

CS-2070 was soluble to a level of >5% in Methanol, Ethanol and n-octanol. Acetone showed solubility at <9%.

CS-2070 was soluble in water and pH 7 buffer to >25%.

The concentrations in pH 4 and 9 buffers was 12% CS-2070 for pH 4 and 7% CS-2070 for pH 9. Both had a lower phase.

LDW/mao

A handwritten signature in cursive script, likely belonging to L. D. Winter, is written over the typed name 'LDW/mao'.

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