TABLE I. *Formulation of Cumar silo coating* (EGAN 1971).

Ingredient	Amount
Paradene No. 2 (dark flaked)	40 lb
R-16-A Neville resin (flaked)	40 lb
Clay	20 lb
Parlon	25 lb
Aroclor 5460	20 lb
Aroclor 1254	70 lb
Xylol	13 gal
S.C. Solvent-100	5 gal
S.C. Solvent-3	8 gal

Cumar was formulated in the summer of 1941 for the Concrete Silo Company of Bloomfield, Indiana (EGAN 1971). The formula for the Cumar silo coating is shown in Table I. It was based on formulations developed by SPROUL (1941) for the protection of concrete silos from the organic acids produced during the ensiling process. Aroclor 1254[2] was incorporated because of low cost, good ability to plasticize, and excellent chemical resistance. Aroclor 5460[3], a polychlorinated terphenyl (PCT), was a resin fortifier. The application of Cumar varied with various silo companies which were involved with its use. The wide distribution of this coating material on silos in the eastern half of the United States was the result of various mergers and disbursements of the silo companies involved.

Michigan Silo Company, founded in 1909 and incorporated in 1916, had initial production facilities located in Charlotte, Michigan, White Marsh, Maryland, and Massillon, Ohio (EGAN 1971). Concrete Silo Company, with silo production facilities in Bloomfield, Indiana and Monteagle, Tennessee, was later acquired and was operated as a subsidiary of Michigan Silo Company. After acquisition of Concrete Silo Company, the headquarters for the entire operation were in Bloomfield, Indiana. In 1966, a corporate reorganization split the company's assets; thus, the Massillon plant became the Michigan Silo Co., Inc., and likewise the Bloomfield Silo Co., Inc. was formed in Bloomfield, Indiana and the Monteagle Silo Company, Inc. was formed in Monteagle, Tennessee.

Personnel of the Michigan Silo Co., Inc. have stated that the purpose of Cumar on new construction was to provide a sealant to

[2] Aroclor 1254 is a mixture of chlorinated biphenyls containing about 54% chlorine (*Monsanto Company*).

[3] Aroclor 5460 is a mixture of chlorinated terphenyls containing about 60% chlorine (*Monsanto Company*).

PLAINTIFF'S
EXHIBIT NO. 9
FOR IDENTIFICATION
1-19-83
DATE
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