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MONSANTO CHEMICAL COMPANY

TEXAS CITY, TEXAS

RESEARCH PROGRESS REPORT

AUGUST, 1952

Project

Vinyl Chloride Process Studies

Job No. A-22-127 (17)

Personnel

Roth, Fox and Yates

Current Objectives

To determine the minimum amount of phenol needed to inhibit vinyl chloride monomer (VCM) at 35° and 45°C for three months

To study other possible inhibitors for VCM

Summary and Conclusions

Phenol, in concentrations ranging from 9 to 130 parts per million, is being tested as an inhibitor for VCM at temperatures of 35° and 45°C. Samples containing 10 and 25 parts per million phenol have been in the 45° bath for six weeks with no polymer formation.

Samples containing iron wire but no other inhibitor at 35° and 45° showed no polymer after six weeks. VCM samples containing iron wire and 20 parts per million of phenol are also under observation at 45°C.

VCM containing 10 parts per million of p-nitrophenol showed polymer within 72 hours at 55°C.

CBY 1114668

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Phenyl- β -naphthylamine, β -conidendrol, α -conidendrol, p-tertiary butylcatechol, catechol, resorcinol and p-aminophenol at concentrations of 10 to 20 parts per million are also under observation at 45° as possible inhibitors for VCM.

Future Objectives

To determine the minimum concentration of phenol required to inhibit VCM

To study other possible inhibitors for VCM

Description of Work Done

Sample tubes were filled following the procedure given in Progress Report No. 16, July, 1952.

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