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KREBS PIGMENTS DEPARTMENT
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NEWARK, NEW JERSEY

NEWARK PLANT
PIGMENT COLOR RESEARCH REPORT

BENZIDINE YELLOW AYT-564-D (K-2402)
3,3'-dichlorbenzidine $\rightarrow$ (acetoacet orthotoluidide)₂

Period Covered: 11/6/46 - 4/16/47

FILE:

DATE: 2/25/49

N42188

Serial No. KN-49-4

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NEWARK PLANT
PIGMENT COLOR RESEARCH REPORT
Final Report
SEMI-WORKS DEVELOPMENT

Title: BENZIDINE YELLOW AYT-564-D (K-2402)
3,3'-dichlorobenzidine $\pm$ (acetoacet orthotoluidide)₂

Period Covered: 11/6/46 to 4/16/47

Charge: A-IIC-220

SUBMITTED BY: *A. A. Brizzolara*
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DATE SUBMITTED: 1/25/49

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DATE ISSUED: 2/25/49

INTRODUCTION

Preliminary evaluation by rubout and in asphalt tile indicated that the K-2402 (AYT-564-D) process produced a satisfactory counterpart for Harmon's YB-2 Benzidine Yellow and, therefore, warranted semi-works development studies.

SUMMARY & CONCLUSIONS

Seven 30 lb. batches and one 90 lb. batch were made in the semi-works based on the K-2402 (AYT-564-D) process and the results indicated satisfactory performance from an operating standpoint and good duplicability of laboratory prepared products.

The process responded well to the variables studied. For example, coupling at 68°F. resulted in a lighter masstone and slightly lower strength than coupling at 86°F; elimination of the nitrous acid excess in the tetrazo by means of sulfamic acid resulted in lighter masstone.

A blend, lot 9183, of five semi-works batches including lot 9157, 9159, 9165, 9167, 9173, was set up as a temporary standard S.D. 48511.

It was decided to continue the development study of this process in the plant on the basis of lot 9196.

EXPERIMENTAL DETAILS

DSN-49-7 Semi-Works Development of YT-564-D.

KN-49-3 Laboratory study of K-2402.