

FOR COMPANY USE ONLY

PROCESS FILE

DATE August 5, 1974

TEST AUTHORIZATION NO. TA-C-74-719 & TEST CONCLUSION

OFFICIAL PRODUCT NAME Tertiary-Butylbenzoylbenzoic Acid Molten

PRODUCT CODE NO. POUNDS PRODUCT PROPOSED 59,080

AREA "Ponsol" BUILDING NAME Intermediates

TITLE See Page 2.

PREPARED BY: D. S. James RESPONSIBLE FOR TEST AND TEST CONCLUSION: D. S. James

PURPOSE OF TEST: To document operational changes in "Ponsol" Intermediates by (1) use of nitrogen vs. CO₂ to purge K-9; (2) modifying solids charging procedure in K-9; (3) use of T-21 (as well as T-20) for drowning; (4) use of jet and jacket initially at same time in S-9; (5) use of lower distillation temperature endpoint in S-9; (6) elimination of crystallization point as criteria for distillation completion.

DURATION OF TEST: Twenty-eight charges.

STANDARD INVOLVED: TA-C-70-441; CWP 770-114-950

ANALYTICAL CONTROL: ☒ No change ☐ Change described under Test Details

TECHNICAL BASIS FOR CHANGE: Plant experience.

TEST DETAILS:
(Include Safety and Waste Disposal) See Test Results.

SAFETY: No change from standard process.

WASTE DISPOSAL: No change from standard process.

RESULTS OF TEST: See Page 2.

RECOMMENDATIONS: See Page 2.

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DATE

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SUPERINTENDENT, DYE QUALITY CONTROL (When Req'd) DATE

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TA-C-74-719 & TEST CONCLUSION

Tertiary-Butylbenzoylbenzoic Acid Molten

TITLE: Document:

Use of nitrogen vs. CO₂ to purge K-9; modifying solids charging procedure in K-9; use of T-21 (as well as T-20) for drowning; use of jet and jacket initially at same time in S-9; lower distillation temperature endpoint in S-9; elimination of crystallization point as criteria for distillation completion.

RESULTS OF TEST:

Twenty-eight charges have been run with the following changes in the operating procedure:

1. Use of nitrogen instead of carbon dioxide to purge K-9 before charging ODCB.
2. Alternate additions of aluminum chloride and phthalic anhydride to K-9, with initial temperature of K-9 at 15-20°C., then allowing temperature to rise to 45-50°C. during addition.
3. Use of T-21 as well as T-20 as a drowning vessel for charge from K-9.
4. Use of both jet and jacket initially in S-9 to start distillation.
5. Distillation of the charge in S-9 until the temperature reaches 130°C. and rides one hour at 130°C. since temperature never reaches 150-155°C.
6. Elimination of the crystallization temperature as distillation endpoint criteria and use odor test only.

All charges made with the above operational modifications have been of satisfactory quality and have been successfully used to make good quality 2-Tert.-Butylanthraquinone Crude Wet.

Recommendations:

Continue to operate process with the above cited changes.