Monsanto

FROM (NAME & LOCATION): R. W. Weiss - Research Center

DATE: May 25, 1970

CC: W. Richard
Q. Thompson
L. Stark/PDF

SUBJECT: PILOT PLANT RUN FOR BROMO AROCLOR AND BROMINE RECOVERY

REFERENCE:

TO: W. G. Knapp

WW-Bldg.

Bill:

We wish to prepare 25 to 50 gallons of 13.19 Bromo Aroclor 1233 in the pilot plant. We also plan to demonstrate recovery of bromine from waste hydrobromic acid. The processes are written up in Suggested Procedures P-1540 and P-1561. To convert the procedures to 13.19 Bromo Aroclor 1233, the following weights of raw materials are required:

13.19 Bromo Aroclor 1233	100 lb (9.2 gal)	35 gal lb (gal)
Aroclor 1221	93.6	356
*Aroclor 1232 (direct chlorination)	10.6	40.4 (3.82)
Bromine (Techn.)	33.3	126.5 (4.9)
*Iron powder	0.03	0.14
Calcium hydroxide	1.8	6.85
Aluminum chloride	1.1	4.2
*Bromo Aroclor 1233 (heavy ends)	3.6	13.7
Bromine Recovery		
Hydrobromic acid (out)	16.3	62
Calcium hydroxide	7.7	29.3
Water	27.4	104 (13)
Chlorine	7.6	29
Bromine recovered	16.3	62
Alumina calcined (activated at 200°)		0.62

*. will be supplied by Research

figures for taking 1.3% light
7.2% heavy

DSW 329515

STLCOPCB4076157

Specifications for Finished Product

13.19 Bromo Aroclor 1233

Spec.Gravity 25/25		1.305
Visc.	210°F	1.40 cs
	100°F	5.5 cs
Total halogen		32.5 ± 1%

The steps in Suggested Procedure 1540 should be followed closely. The reaction should be run under anhydrous conditions, with drying agent between reactor and scrubber. We propose, however, to charge the aluminum chloride slurried in product.

It is my understanding that the pilot plant run is tentatively scheduled for the first week in June.

R. W. Weiss

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