November 18, 1940

~~Mr. L. A. Watt - St. Louis~~

cc: Mr. D[illegible]
[illegible]
[illegible] - St. Louis
Howerton
Gerber - Anniston

Proposed Specifications
Aroclors

Attached are revised specifications for various crude and finished Aroclors produced regularly at Plant "B."

Mr. Howerton has suggested that many of the Aroclors listed in the Product Code are no longer produced and should not be included in the revised list of specifications. He advises us that the following should be deleted from the Product Code:

1040-010-75-03	1040-330-75-03
1040-020-75-03	1040-370-75-03
1040-030-75-03	1040-380-75-03
1040-040-75-03	1040-400-75-03
1040-120-75-03	1040-420-75-03
1040-150-75-03	1040-440-75-03
1040-190-75-03	1040-460-75-03
1040-200-75-03	1040-470-75-03
1040-270-75-03	1040-490-75-03
1040-320-75-03	1040-500-75-03

You will notice that a number of the Aroclors are made at Anniston. These products should carry both code numbers listed in the Product Code and the master forms should be approved by the proper authority at that plant.

You will note also that specifications are not included for those we are suggesting to delete. If it is decided to keep some of them, we will set up specifications upon receipt of that information. Please advise if any of these are wanted.

We are not at this time including any sheets for Aroclors which contain viscosity specifications as there is some question as to the calibration of our instrument which must be cleared up before we set up these specifications.

A. E. Baluk

RR

M. J. Wiegand

DSW 330971

STLCOPCB4077615

SPECIFICATIONS FOR PRODUCT

Product No. 248 Sales Code No. 1040-340-75-03 Date Nov. 18, 1940

Name Aroclor, distilled--No. 1268

Chemical Formula Mixture Mol. Wt.

Superseding Specifications 5-14-36 Approved

PROPERTY	SPECIFICATION	METHOD NO.
Appearance and Color	White to light yellow crystalline powder	10,084-40
Hold Point	135 - 160°C	10,127-40
Acid Number (mg NaOH/gr)	0.05 Max.	10,087-40
Sample for analysis	1 16 oz. w.m. bottle	

Special Specification - Tested only when requested

Total Chlorine (alkaline fusion)	67.5 - 68.5%	10,088-40

DSW 330972

STLCOPCB4077616

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-350-75-05 Date Nov. 18, 1940

Name Aroclor, distilled--No. 1268

Chemical Formula Mixture Mol. Wt.

Superseding Specifications 5-1-38 Approved

PRODUCT	SPECIFICATION	METHOD NO.
Hold Point	225 - 255°C	10,127-40
Appearance and Color	White to light gray or light yellow crystalline powder.	10,054-40

Sample for analysis 1 x 16 oz. w.m. bottle

Typical values	
Total Chlorine (alkaline fusion)	68.5 - 69.5
Acid Number (mg NaOH/gr)	0.005 - 0.010
Iron (Fe)	0.001 - 0.003

DSW 330973

STLCOPCB4077617

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-855-75-05 Date Nov. 18, 1940

Name Aroclor, Distilled--No. 1270

Chemical Formula Mixture Mol. Wt.

Superseding Specifications 4-21-38 Approved

PROPERTY	SPECIFICATION	METHOD NO.
Appearance and Color	White crystalline powder	10,084-40
Color (5% solu. in Toluol)	APH 80 Max.	10,511-40
Total Chlorine (alkaline fusion)	69.5 - 70.5%	10,088-40
Hold Point	285 - 300°C	10,127-40
Foreign Odor	none	10,510-40

Sample for Analysis 1 x 16 oz. w.m. bottle

(+) Run on every third lot.

Note: A distillation test is made once every week and the lower boiling fractions are tested for foreign odor according to (Method No. 10,512-40). The distilling range normally lies between 450°C and 460°C.

DSW 330974

STLCOPCB4077618

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-180-75-05 Date Nov. 18, 1940

Name Aroclor, Crude--No. 1162

Chemical Formula Mixture Mol. Wt.

Superseding Specification new Approved

PROPERTY	SPECIFICATION	METHOD NO.
Specific Gravity 90/15.5	1.382 - 1.387	10,114-40
Acid Number (mg NaOH/gr)	0.5 Max.	10,087-40
Appearance and Color	brown to black sticky mass	10,084-40

Sample for analysis 2 x 8 oz. w.m. bottle

Note: Specific gravity changes minus 0.0010 per °C (85-130°C)

Total Chlorine (alkaline fusion) varies between 61.5 - 62.5%

DSW 330975

STLCOPCB4077619

SPECIFICATION FOR PRODUCT

Product No. 248 Sales Code No. 1040-185-75-05 Date Nov. 18, 1940

Name Aroclor, Crude Mixture 90% No. 1162--10% Toluol

Chemical Formula Mixture Mol. Wt.

Superseding Specification Approved

PROPERTY	SPECIFICATION	METHOD NO.
Compositions:		
Aroclor 1162	90.5 - 89.5%	10,194-40
Toluol	9.5 - 10.5%	10,194-40
Appearance & Color	Brown to black viscous liquid	10,084-40

Sample for Analysis 2 x 8 oz. w.m. bottle

Notes:

Specific Gravity Aroclor 1162 90/15.5°C 1.582 - 1.587

Specific Gravity changes minus 0.001 per °C (80-100°C)

Specific Gravity Toluol 15.5/15.5 0.870

Specific Gravity changes minus 0.00089 per °C (15-30°C)

The Specific Gravity 40/15.5 of the mixture is approx. 1.53

DSW 330976

STLCOPCB4077620

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-130-75-03 Date Nov. 18, 1940

Name Aroclor, Crude--No. 1142

Chemical Formula Mixture Mol. Wt.

Superseding Specifications new Approved

PROPERTY	SPECIFICATION	METHOD NO.
Specific Gravity 65/15.5°C	1.348--1.355	10,114-40
Acid Number mg NaOH/gr	0.5 Max.	10,087-40
Appearance and Color	Brown to black oily liquid	10,084-40

Sample for analysis 2 x 8 oz. w.m. bottle

Special Specification - Tested only when requested

Chlorine (alkaline fusion)	41.5 - 42.5%	10,088-40

Sample for analysis 1 x 16 oz. w.m. bottle

Notes Specific Gravity changes minus 0.0009 per °C (50-105°C)

DSW 330977

STLCOPCB4077621

SPECIFICATION FOR PRODUCT

Product No. 246 Sales Code No. 1040-140-73-05 Date Nov. 18, 1940

Name Aroclor, Crude--No. 1148

Chemical Formula Mixture Mol. Wt.

Superseding Specifications new Approved

PROPERTY	SPECIFICATION	METHOD NO.
Specific Gravity 65/15.5°C	1.412-1.415	10,114-40
Acid Number (mg NaOH/gr)	0.5 Max.	10,087-40
Appearance and Color	Brown to black oily liquid	10,084-40

Sample for Analysis 2 x 8 oz. w.m. bottles

Special Specification - Tested only when requested

Total Chlorine (alkaline fusion)	47.5 - 48.5	10,086-40

Sample for analysis 1 x 16 oz. w.m. bottle

Note: Specific Gravity changes minus 0.0009 per °C (50-100°C)

DSW 330978

STLCOPCB4077622

SPECIFICATION FOR PRODUCT

Product No. 246 Sales Code No. 1040-160-75-03 Date Nov. 18, 1940

NAME Aroclor, Crude--No. 1154

Chemical Formula Mixture Mol. Wt.

Superseding Specification new Approved

PROPERTY	SPECIFICATION	METHOD NO.
Specific Gravity 65/15.5	1.500 - 1.510	10,114-40
Acid Number (mg NaOH/gr)	0.5 Max.	10,087-40
Appearance and Color	Brown to black viscous liquid	10,084-40

Sample for Analysis 1--16 oz. w.m. bottle

Special Specification - Tested only when requested

Total Chlorine (alkaline fusion)	53.5 - 54.5%	10,088-40

Note: Specific Gravity changes minus 0.00095 per °C (55-105°C)

DSW 330979

STLCOPCB4077623

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-170-75-03 Date Nov. 18, 1940

Name Aroclor, Crude No. 1160

Chemical Formula Mixture Mol. Wt.

Superseding Specification New Approved

PROPERTY	SPECIFICATION	METHOD NO.
Specific Gravity 90/15.5	1.558-1.563	10,114-40
Acid Number (mg NaOH/gr)	0.5 Max.	10,087-40
Appearance and Color	Brown to black viscous sticky mass	10,084-40

Sample for analysis 1 x 16 oz. w.m. bottle

Special Specification — Tested only when requested

Total Chlorine (alkaline fusion) 59.5 to 60.5% 10,088-40

Note: Specific Gravity changes minus 0.0010 per °C (75-130°C)

DSW 330980

STLCOPCB4077624

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-210-75-05 Date Nov. 18, 1940

Name Aroclor, Crude--No. 1168

Chemical Formula Mixture Mol. Wt.

Superseding Specifications new Approved

PROPERTY	SPECIFICATION	METHOD NO.
Hold Point	145 - 165°C	10,127-40
Appearance and Color	gray to black crystalline powder.	10,084-40

Sample for Analysis 1 x 16 oz. w.m. bottle

Typical Values	
Total Chlorine (alkaline fusion)	67.5 - 68.5
Acid Number (mg NaOH/gr)	1.5
Initial Freezing Point	170°C

DSW 330981

STLCOPCB4077625

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-220-75-05 Date Nov. 18, 1940

Name Aroclor, Crude No. 1160

Chemical Formula Mixture Mol. Wt.

Superseding Specifications new Approved

PROPERTY	SPECIFICATION	METHOD NO.
Mold Point	225 - 250°C	10,127-40
Appearance and Color	gray to black crystalline powder	10,084-40

Sample for analysis 1 x 16 oz. w.m. bottle

Notes

Total Chlorine (alkaline fusion) 68.5 - 69.5%

DSW 330982

STLCOPCB4077626

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-790-75-05 Date Nov. 18, 1940

Name Aroclor, Crude--No. 2565 (Coal Tar Resin No. 2565)

Chemical Formula Mixture Mol. Wt.

Superseding Specifications 8-10-35 Approved

PROPERTY	SPECIFICATION	METHOD NO.
Appearance and Color	Black brittle resin	10,084-40
Softening Point (ASTM)	66.0 - 72.0°C	10,085-40
Acid Number (mg NaOH/gr)	0.8 - 1.0	10,087-40

Sample for Analysis 1 x 8 oz. w.m. bottle

Note: Aroclor 2565 is the product of chlorinating Crude High Boiler and Diphenyl (25:75) to 65% Cl.

DSW 330983

STLCOPCB4077627

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-410-75-05 Date Nov. 18, 1940

Name Aroclor, Crude--No. 4065

Chemical Formula Mixture Mol. Wt.

Superseding Specifications new Approved

PROPERTY	SPECIFICATION	METHOD NO.
Appearance and Color	Black brittle resin	10,084-40
Softening Point (ASTM)	66.0 - 72.0°C	10,085-40

Sample for Analysis 1 x 16 oz. w.m. bottle

Aroclor 4065 is the product from chlorination of a mixture of diphenyl and distilled High Boiler (60:40) to 65% Cl.

DSW 330984

STLCOPCB4077628

SPECIFICATIONS FOR PRODUCT

Product No. 246 Sales Code No. 1040-450-75-03 Date Nov. 18, 1940

Name Aroclor, Crude--No. 5060

Chemical Formula Mixture Mol. Wt.

Superseding Specifications new Approved

PROPERTY	SPECIFICATION	METHOD NO.
Appearance and Color	Black brittle resin	10,084-40
Softening Point (ASTM)	110.0 - 115.0°C	10,085-40

Sample for analysis 1 x 8 oz. w.m. bottle

Note: Aroclor 5060 is distilled High Boiler chlorinated to 60% Cl.

DSW 330985

STLCOPCB4077629