Monsanto

CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: [illegible] DEPT.: 246

DATE OF SAMPLE: 7/21/76 BY: [illegible]

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
[illegible]	[illegible]	WGK - 1

OPERATION SAMPLED: 246

Temp 35° C

Pressure = 29.72 = 759.2

SAMPLING MEDIA: Florosil Gas Column

MATERIAL SAMPLED: PCB

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	RESULTS (µg)	CONC. (mg/M³)	TLV (mg/M³)	PROTECTIVE EQUIP. WORN
				m/min					
1	Pump #1 (Tube #1A)		351	77		3.5	0.11	1.0	PCB
			1107	78.9		3.8	0.11	1.0	Biphenyl
	E. Spencer		436'	Δ 77.95	34				
	Primum Operator				32.85				
	$V = 34 \times \frac{759.2}{760} \times \frac{298}{308} = 32.85$								
			Corrected ~~Hg~~ Volume						

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
		613160
		612878
	After full change → 28	
		29.60 l

COMMENTS: NIOSH Sampling

Strain 257 STK/100 cc

612878

Dead = 529[illegible] (l)

83[illegible]

32.5 l

DATE: 7/21/76 SIGNED: Julio Munoz

MONS 097239

Monsanto CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: WGK DEPT.: 946

DATE OF SAMPLE: 7/21/76 BY: Julio Muñoz

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
SKC	SKC	WGK-2

OPERATION SAMPLED: 246

Temp. 35 °C

N = 29.72

SAMPLING MEDIA: Florosil Gas Chromatography

MATERIAL SAMPLED: PCB

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	RESULTS (µg)	CONC. (mg/M³)	TLV (mg/M³)	PROTECTIVE EQUIP. WORN
2	Pump #2 (Tube #2A)			ml/min		4.5	0.13	1.0	PCB
			354	75		3.0	0.08	1.0	Biphenyl
	Elton King (2nd operation)		106	84.5					
			432'	84.75	36.6				
					35.4				

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
		288838
		288595
	After [illegible]	2[illegible]
		32.5 l

MONS 097240

COMMENTS: Niosh Sampling

Stroke 233/100 cc (I)

288572

Reading = 2[illegible] (I)

28907

33.85 l

DATE: 7/21/76 SIGNED: Julio Muñoz

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
SKC	SKC	WGK-3

OPERATION SAMPLED: 246

Temp 35°C

P = 29.72

SAMPLING MEDIA: Tiprosil [illegible]

MATERIAL SAMPLED: PCB

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	RESULTS (µg)	CONC. (mg/M³)	TLV (mg/M³)	PROTECTIVE EQUIP. WORN
				mg/min		5.1	0.15	1.0	PCB
3	Pump #3 (Tube #24)		3 56	72		2.3	0.07	1.0	Biphenyl
			11 05	80					
	Carl Kilgore		429'	1.81	34.75				
					33.58				
	Stack Operator								

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
		248852
		248583
	After full charge	269
		32.84

COMMENTS: NIOSH Sampling

STRIKES [illegible]

248567

READING [illegible]

88434

33.75 l

DATE: 7/21/76

SIGNED: Julio Munoz

MONS 097241

Monsanto CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: [illegible]

DATE OF SAMPLE: 7/[illegible]

BY: [illegible]

DEPT.: [illegible]

Monsanto

CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: WGK

DATE OF SAMPLE: [illegible] BY: [illegible] DEPT.: [illegible]

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
[illegible]	[illegible]	[illegible]

OPERATION SAMPLED: 246

Temp 95°C

[illegible]

SAMPLING MEDIA: Florosil Glass [illegible]

MATERIAL SAMPLED: PBC

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	RESULTS (µg)	CONC. (mg/M³)	TLV (mg/M³)	PROTECTIVE EQUIP. WORN
				[illegible]		10.5	0.37	1.0	PCB
4	Pump #1 (Tube #4A)		3[illegible]	[illegible]		2.6	0.09	1.0	Biphenyl
			1109	68.9					
	Al Coff		430	[illegible]	29.6				
	Still operator				28.6				

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
		446804
		446959
		245
		24.18

COMMENTS: Hi-Cl Sampling

[illegible]

446496

[illegible]

59091

24.21

MONS 097242

DATE: 7/21/76

SIGNED: Julio Muñoz

Monsanto

CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: [illegible]

DATE OF SAMPLE: 7/[illegible]/76 BY: [illegible] DEPT.: [illegible]

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
	[illegible]	[illegible]

OPERATION SAMPLED: 246

Temp 35°C

P = 29.72

SAMPLING MEDIA: Flo-O-Sil Glass [illegible]

MATERIAL SAMPLED: PCB

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	ANALYTICAL RESULTS (µg)	CONC. (mg/M³)	TLV (mg/M³)	PROTECTIVE EQUIP. WORN
				[illegible]		2.1	0.07	1.0	PCB
5	[illegible] #5A)		4 1/2	72		0			Biphenyl
			11 11	72.3					
	#7 Continuous		419'	At 72.6	30.4				
	Chemicals								
					29.4				

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
		290964
		990699
	After full change →	265
		26.1

COMMENTS: High Sampling

[illegible]

290600

[illegible] 22147

69114

27.3 l

DATE: 7/21/76 SIGNED: Julio Munoz

MONS 097243

Monsanto

CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: WGK

DATE OF SAMPLE: 7/21/76

BY:

DEPT.: 790

Julio Munoz

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
[illegible]	[illegible]	[illegible]

OPERATION SAMPLED: 790

Incinerator

Temp 36°C

[illegible]

SAMPLING MEDIA: [illegible]

MATERIAL SAMPLED: PCB

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE DATA: SAMPLE TIME	FLOW RATE	VOLUME ( )	ANALYTICAL: RESULTS (µg)	CONC. (mg/M³)	TLV (mg/M³)	PROTECTIVE EQUIP. WORN
						0.09	0.004	1.0	PCB
[illegible]	[illegible]		4 33	50					Biphenyl
			11 23	50					
	AT plenum of		410'	50	20.5				
	Incinerator								
					19.8				

MONS 097244

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
		477718
		477269
		449
		19.17

COMMENTS: Niosh Sampling

[illegible]

477722

[illegible]

85736

19.39

DATE: 7/21/76

SIGNED: Julio Munoz

Monsanto

CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: [illegible]

DATE OF SAMPLE: 7/2/76 BY: [illegible]

DEPT.: 790

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
[illegible]	[illegible]	[illegible]

SAMPLING MEDIA: [illegible] Glass Cond[illegible]

MATERIAL SAMPLED: PCB

ANALYSIS: GC

OPERATION SAMPLED: 790

Incinerator

Temp [illegible]°C

P = [illegible]

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	RESULTS (µg)	CONC. (mg/m³)	TLV (mg/m³)	PROTECTIVE EQUIP. WORN
				ml/min		0.58	0.02	1.0	PCB
7	Pump #2-1 (Tree #7A)		4 38	[illegible]			N.D.		Biphenyl
			11 22	62.5					
	Gary Kennis		404	[illegible]	24.9				
	Distribution Operator				24.1				

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
		644675
		644485
		1[illegible]0
		22.6

COMMENTS: Niosh Sampling

Strokes [illegible]

644464

Reading [illegible]

42934

22.7 f

MONS 097245

DATE: 7/21/76

SIGNED: Julio Munoz

Monsanto

CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: WGK

DATE OF SAMPLE: 7/22/76 BY: [illegible] DEPT.: 246

7-22-76

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
SKC	SKC	WGK-1
Pump		

OPERATION SAMPLED: 246

STILL OPERATOR

SAMPLING MEDIA: [illegible] Tube

MATERIAL SAMPLED: PCB

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	RESULTS (µg)	CONC. (mg/m³)	TLV (mg/m³)	PROTECTIVE EQUIP. WORN
				ml/m		4.6	0.13	1.0	PCB
						2.7	0.08	1.0	Biphenyl
	Tube # 8A (Pump #1)		3 [illegible]	82					
				81.1					
			11 [illegible]						
			450'						
			AV	81.55	36.7				
					(35.47)				

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
	AL COFF	

MONS 097246

COMMENTS: 251 Std/100 c

-613779-
613528
702363
88584 (35.29 l)

DATE: 7/22/76 SIGNED: Ed Heumann

Monsanto CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: [illegible] DEPT.: 246

DATE OF SAMPLE: 7/[illegible]/76 BY: [illegible]

7-22-76

OPERATION SAMPLED: 246

[illegible]

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
SCC	SKC	66K2
[illegible]		

SAMPLING MEDIA:

MATERIAL SAMPLED:

ANALYSIS:

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (ℓ)	RESULTS (µg)	CONC. (mg/M³)	TLV (mg/M³)	PROTECTIVE EQUIP. WORN
				[illegible]		3.8	0.11	1.0	PCB
						2.6	0.07	1.0	Biphenyl
	Tube # 9-2 Pump 2		3[illegible]	81					
				80					
			11 19						
			451'						
			ΔV	80.5	36.3				
					35.1				

MONS 097247

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
	William Benton	

COMMENTS: 247 Strokes/100cc

-289108-
288861
-362463-

72355 99.7 ℓ

DATE: 7/22/76 SIGNED: Ed Heumann

Monsanto

CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: WGK

DATE OF SAMPLE: 7/22/76 BY: J. Munoz

DEPT.: 246

7-22-76

OPERATION SAMPLED: 246

2ND OPERATOR

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
SKC	SKC	Work 3
Air Pump		

SAMPLING MEDIA: Fibrous Glass Paper

MATERIAL SAMPLED: PCC

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	RESULTS (µg)	CONC. (mg/m³)	TLV (mg/m³)	PROTECTIVE EQUIP. WORN
				mL/hr		3.8	0.102	1.0	PCB
						2.6	0.07	1.0	Biphenyl
	Tube #10a Pump #3		3 44 PM	85.7					
			11 13 PM	83.9					
			454'						
			AV	84.8	38.5				
					(37.2)				

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
	Elton King	

COMMENTS: 281 strokes/100 cc

2488 52

~~[illegible]~~

-[illegible]-

-344 [illegible]-

95695

34.0 l

DATE: 7/22/76

SIGNED: Ed Heumann

MONS 097248

Monsanto CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: WGK DEPT.: 246

DATE OF SAMPLE: 7/21/76 BY: J. Munoz

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
SKC	SKC	WGK 4
Air Pump		

OPERATION SAMPLED: 246

Standard Operation

SAMPLING MEDIA: Florisil Column

MATERIAL SAMPLED: PCB

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	ANALYTICAL RESULTS (µg)	CONC. (mg/m³)	TLV (mg/m³)	PROTECTIVE EQUIP. WORN
				mL/min		4.2	0.15	1.0	PCB
						1.9	0.07	1.0	Biphenyl
	Tube # 11c (Pump WGK 4)		3 45 PM	[illegible]					
			11 15	55.8					
			453'						
			AV.	62.35	28.24				
					27.29				

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
	Carl Kingsove	

MONS 097249

COMMENTS: 243 Stk/100cc

-447073-

446827

-5091.65-

62595

25.75 l

DATE: 7/22/76 SIGNED: Ed. Heumann

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
SKC	SKC	[illegible]
[illegible]		

OPERATION SAMPLED: 246

Premium Operator

SAMPLING MEDIA: [illegible]

MATERIAL SAMPLED: PCB

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	ANALYTICAL RESULTS (µg)	CONC. (mg/m³)	TLV (mg/m³)	PROTECTIVE EQUIP. WORN
				[illegible]		2.9	0.11	1.0	PCB
						2.7	0.1	1.0	Biphenyl
	Tube #12 (Pump #5)		3 42 PM	75.5					
			11 15 [illegible]	48.0					
			456'						
			[illegible]	61.75	28.15				
					27.2				

MONS 097250

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
	Spencer	

COMMENTS: 432 st/100 cc

37 84 89
37 80 57
432

291627
376 [illegible]
84765

19.6 l

DATE: 7-22-76

SIGNED: Ed. Heumann

Monsanto

CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: Wick

DATE OF SAMPLE: 7/22/76 BY: [illegible]

DEPT.: 246

Monsanto
CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: USK DEPT: 046

DATE OF SAMPLE: 7/22/76 BY: R. Ely

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
Dupont P.Mp		P-125 P-200

OPERATION SAMPLED: Aroclor Vist Lopl 046

SAMPLING MEDIA: Florisil (Magnesium Silicate)
MATERIAL SAMPLED: PCB Biphenyl
ANALYSIS: GC/EC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE DATA: SAMPLE TIME	FLOW RATE	VOLUME (l)	ANALYTICAL: RESULTS (ug)	CONC. (mg/m3)	TLV (mg/m3)	PROTECTIVE EQUIP. WORN
OMEH 11	Outside Hood Both without Density	GN	3:30 pm	90 cc/min	41.0	12.1	0.31	1.0	PCB
F-13	Tests are Conducted @ Exhaust		11 05 pm		(39.6)	9.0	0.22	1.0	Biphenyl
	Vent (SW Corner of 2nd Level)		456'						
OMEH 12	Between 9 & 7 Chlorination	GN	3:28	87 cc/min	40.2	0.31	0.01	1.0	PCB
F-8	Units (6' Height) (3rd Level)		1 10 pm		(38.85)	N.D			Biphenyl
			462'						
OMEH 15	Top Level. Tonon #6	GN	3:35 pm	90 cc/min	40.7	<0.01	N.D.	1.0	PCB
F-5	Continuous Chlorinator		11 12		(39.33)				Biphenyl
	6' Height (Adj: Catalyst Mix		452'						
	Tank) (FECL)								

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.

MONS 097251

COMMENTS: Manufacturing Aroclor 1016
Temp 95°F

NOTE Quadrant weight not re calibrated after sample. Results may

DATE: 7/22/76 SIGNED: R. Ely

Monsanto CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: [illegible] DATE OF SAMPLE: [illegible] BY: [illegible] DEPT.: [illegible] 246

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.
SKC	SKC	Medical 3-2

OPERATION SAMPLED: INCINERATOR

OPERATOR

$V = V_1 \frac{759.7}{760} \times \frac{27\%}{300}$

SAMPLING MEDIA: Flo[illegible] [illegible]

MATERIAL SAMPLED: PCB

ANALYSIS: GC

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE TIME	FLOW RATE	VOLUME (l)	ANALYTICAL RESULTS (µg)	ANALYTICAL CONC. (mg/m³)	TLV (mg/m³)	PROTECTIVE EQUIP. WORN
				[illegible]		0.24	0.01	1.0	PCB
									Biphenyl
	Tube #13-A Pump 3-2		4 [illegible]	50	18.5				
					17.88				
			11 27 pm	37.7					
				37.5					
			425'	36.8	37.1				
	Corrected Volume			34.4					
			AV.	43.55					

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.
	Carl Johnson	

MONS 097252

COMMENTS: 448 stk/100cc

569359
568807
552
448 477820
1000 — 478268 —
500 — 567970 —
89711 17.94 l

DATE: 7/22/76 SIGNED: Ed Heumann

Monsanto · CORPORATE MEDICAL DEPARTMENT

INDUSTRIAL HYGIENE SURVEY SHEET

PLANT: W.G.K. DEPT: 246

DATE OF SAMPLE: 1/22/76 BY: B. Eley

INSTRUMENTATION

EQUIPMENT	MANUFACTURER	MODEL/SER. NO.

OPERATION SAMPLED: _____

$V = V_1 \times \frac{759.2}{760} \times \frac{298}{303}$

SAMPLING MEDIA: _____

MATERIAL SAMPLED: _____

ANALYSIS: _____

SAMP. NO.	SAMPLING LOCATION/ JOB DESCRIPTION	TP.	SAMPLE DATA: SAMPLE TIME	SAMPLE DATA: FLOW RATE	SAMPLE DATA: VOLUME (l)	ANALYTICAL: RESULTS (µg)	ANALYTICAL: CONC. (mg/m³)	TLV (mg/m³)	PROTECTIVE EQUIP. WORN
DMEH 12	Drumming Station	GW	3:57 PM	91 cc/min		12.4	0.32	1.0	PCB
F-7	2' above drum in front of scale and directly above filling spout.		11:15 AM			1.6	0.04	1.0	Biphenyl
			4:38		39.35				
	Corrected Volume				38.5				

MONS 097253

NO.	EMPLOYES,NAMES	SOCIAL SECURITY NO.

COMMENTS: Manufacturing Area 106 Temp: 95°F

DATE: 1/22/76 SIGNED: B N Eley