

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	3037
4	EPA ID No.	NCD047373766
5	Facility Name	DSM Pharmaceuticals, Inc
6	Facility Location	
7	City	Greenville
8	State	NC
9	Unit ID Name/No.	PRENCO Incinerator
10	Other Sister Facilities	
11	Combustor Class	Onsite Incinerator
12	Combustor Type	Liquid injection
13	Combustor Characteristics	Liquid injection
14		
15	Capacity (MMBtu/hr)	
16	Soot Blowing	No
17	APCS Detailed Acronym	None
18	APCS General Class	None
19	APCS Characteristics	
20	Hazardous Wastes	Liquid
21	Haz Waste Description	
22	Supplemental Fuel	Nat gas
23		
24	Stack Characteristics	
25	Diameter (ft)	2.50
26	Height (ft)	80
27	Gas Velocity (ft/sec)	
28	Gas Temperature (°F)	
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Descr	
2		
3	3037C1	
4		
5	Report Name/Date	Stationary Source Sampling Report, Reference No. 6189, Burroghs Wellcome Company, Greenville, North Carolina, Prencos Incinerator Stack, February and March, 1989
6	Report Prepar	Entropy, Inc.
7	Testing Firm	Entropy, Inc.
8	Testing Dates	February 21 and 22, 1989
9	Cond Dates	Feb-89
10	Cond Description	Trial burn, 1800F, chloroform, toluene
11	Content	PM, HCl, CO, POHC
12		
13	3033C2	
14		
15	Report Name/Date	Stationary Source Sampling Report, Reference No. 6189, Burroghs Wellcome Company, Greenville, North Carolina, Prencos Incinerator Stack, February and March, 1989
16	Report Prepar	Entropy, Inc.
17	Testing Firm	Entropy, Inc.
18	Testing Dates	February 22 and 23, 1989
19	Cond Dates	Feb-89
20	Cond Description	Trial burn, 1700F, chloroform, toluene
21	Content	PM, HCl, CO, POHC
22		
23	3033C3	
24		
25	Report Name/Date	Stationary Source Sampling Report, Reference No. 6189, Burroghs Wellcome Company, Greenville, North Carolina, Prencos Incinerator Stack, February and March, 1989
26	Report Prepar	Entropy, Inc.
27	Testing Firm	Entropy, Inc.
28	Testing Dates	February 23 and March 1, 1989
29	Cond Dates	Feb-89
30	Cond Description	Trial burn, 1800F, chlorobenzene, chloroform, toluene
31	Content	PM, HCl, CO, POHC
32		
33	3033C4	
34		
35	Report Name/Date	Stationary Source Sampling Report, Reference No. 6189, Burroghs Wellcome Company, Greenville, North Carolina, Prencos Incinerator Stack, February and March, 1989
36	Report Prepar	Entropy, Inc.
37	Testing Firm	Entropy, Inc.
38	Testing Dates	March 1 and 2, 1989
39	Cond Dates	Feb-89
40	Cond Description	Trial burn, 1700F, chlorobenzene, chloroform, toluene
41	Content	PM, HCl, CO, POHC

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions											
2												
3		Commer Units		7% O2								
4												
5	3037C1					R1		R2		R3		Cond Avg
6												
7	PM	E1	gr/dscf	y		0.072		0.078		0.0419		0.064
8	CO (RA)	E1	ppmv	n		0.29		0.22		0.11		
9	CO (RA)	E1	ppmv	y		0.46		0.30		0.15		0.30
10	HCl	E1	ppmv	n		676		604		605		
11	HCl	E1	ppmv	y		1063		813		847		907.8
12	Total Chlorine	E1	ppmv	y		1063		813		847		907.8
13												
14	POHC DRE		Chloroform									
15	POHC Feedrate		lb/hr			3.4		3.2		3.2		
16	POHC Emissions		lb/hr		<	5.95E-02	<	1.13E-04		2.07E-05		
17	POHC DRE		%		>	99.9982	>	99.9965		99.9993		
18												
19	POHC DRE		Toluene									
20	POHC Feedrate		lb/hr			5.8		4.6		4.5		
21	POHC Emissions		lb/hr		<	8.14E-05	<	2.70E-05	<	5.23E-05		
22	POHC DRE		%		>	99.9985	>	99.9994	>	99.9988		
23												
24	Sampling Train		PM/HCl	E1								
25	Stack Gas Flowrate		dscfm			827		882		913		874.0
26	O2		%			12.1		10.6		11		11.2
27	Moisture		%			10.4		9.9		10.1		10.1
28	Temperature		°F			1776		1756		1804		1778.7
29												
30	3037C2					R1		R2		R3		Cond Avg
31												
32	PM	E1	gr/dscf	y		0.0751		0.0412		0.0715		0.0626
33	CO (RA)	E1	ppmv	n		0.11		0.13		0.11		
34	CO (RA)	E1	ppmv	y		0.19		0.19		0.18		0.19
35	HCl	E1	ppmv	n		582		557		568		
36	HCl	E1	ppmv	y		981.69		820.84		946.67		916.40
37	Total Chlorine	E1	ppmv	y		981.69		820.84		946.67		916.40
38												
39	POHC DRE		Chloroform									
40	POHC Feedrate		lb/hr			3.3		3.1		3.2		
41	POHC Emissions		lb/hr		<	1.03E-06	<	1.51E-06	<	2.83E-06		
42	POHC DRE		%		>	99.9999	>	99.9999	>	99.9999		
43												
44	POHC DRE		Toluene									
45	POHC Feedrate		lb/hr			4.5		4.6		4.9		
46	POHC Emissions		lb/hr		<	4.82E-06	<	1.60E-05	<	3.54E-06		
47	POHC DRE		%		>	99.9998	>	99.9996	>	99.9999		
48												
49	Sampling Train		PM/HCl	E1								
50	Stack Gas Flowrate		dscfm			845		979		996		940.0
51	O2		%			12.7		11.5		12.6		12.3
52	Moisture		%			8.8		8.8		8.6		8.7
53	Temperature		°F			1694		1694		1676		1688.0
54												
55	3037C3					R1		R2		R3		Cond Avg
56												
57	PM	E1	gr/dscf	y		0.119		0.123		0.185		0.1423
58	CO (RA)	E1	ppmv	n		1.00		0.024		1.00		
59	CO (RA)	E1	ppmv	y		1.56		0.04		1.52		1.04
60	HCl	E1	ppmv	n		477		536		495		
61	HCl	E1	ppmv	y		742.0		843.1		753.3		779.5
62	Total Chlorine	E1	ppmv	y		742.0		843.1		753.3		779.5
63												
64	POHC DRE		Chlorobenzene									
65	POHC Feedrate		lb/hr			2.9		2.9		2.9		
66	POHC Emissions		lb/hr		<	6.87E-06	<	5.43E-06	<	1.44E-06		
67	POHC DRE		%		>	99.9997	>	99.9998	>	99.9999		
68												
69	POHC DRE		Chloroform									
70	POHC Feedrate		lb/hr			2.5		2.4		2.4		
71	POHC Emissions		lb/hr		<	6.24E-06	<	8.79E-06	<	3.64E-04		

	B	C	D	E	F	G	H	I	J	K	L	M
72	POHC DRE		%		>	99.9997	>	99.99964	>	99.9845		
73												
74	POHC DRE	Toluene										
75	POHC Feedrate		lb/hr			28.5		28.7		28.5		
76	POHC Emissions		lb/hr			8.17E-05	<	8.12E-06		4.77E-05		
77	POHC DRE		%			99.9997	>	99.9999		99.9998		
78												
79	Sampling Train	PM/HCl	E1									
80	Stack Gas Flowrate		dscfm			1171		1013		1032		
81	O2		%			12		12.1		11.8		
82	Moisture		%			9.2		10.2		10.3		
83	Temperature		°F			1790		1801		1798		
84												
85												
86	3037C4					R1		R2		R3		Cond Avg
87												
88	PM	E1	gr/dscf	y		0.106		0.162		0.0731		0.1137
89	CO (RA)	E1	ppmv	n		1.0		5.7		0.7		
90	CO (RA)	E1	ppmv	y		1.6		8.7		1.2		3.8
91	HCl	E1	ppmv	n		495		465		527		
92	HCl	E1	ppmv	y		815.3		707.6		910.9		811.3
93	Total Chlorine	E1	ppmv	y		815.3		707.6		910.9		811.3
94												
95	POHC DRE	Chlorobenzene										
96	POHC Feedrate		lb/hr			2.8		2.8		2.9		
97	POHC Emissions		lb/hr		<	2.39E-07	<	4.04E-07	<	3.84E-07		
98	POHC DRE		%		>	99.9999	>	99.9999	>	99.9999		
99												
100	POHC DRE	Chloroform										
101	POHC Feedrate		lb/hr			2.6		2.6		2.4		
102	POHC Emissions		lb/hr			6.76E-05		1.98E-04		2.93E-05		
103	POHC DRE		%			99.9973		99.9923		99.9987		
104												
105	POHC DRE	Toluene										
106	POHC Feedrate		lb/hr			27.7		27.8		28.5		
107	POHC Emissions		lb/hr			1.31E-05		4.89E-05		1.63E-05		
108	POHC DRE		%			99.9999		99.9998		99.9999		
109												
110	Sampling Train	PM/HCl	E1									
111	Stack Gas Flowrate		dscfm			1253		1296		1218		
112	O2		%			12.5		11.8		12.9		
113	Moisture		%			9.2		9.4		9.4		
114	Temperature		°F			1716		1702		1713		

B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Feedrate																		
2																			
3																			
4	3037C1																		
5	Feedstream Description																		
6	Feed Class 2																		
7	Feed Rate																		
8	Heating Value																		
9	Chlorine																		
10	Ash																		
11	Sb																		
12	As																		
13	Ba																		
14	Be																		
15	Cd																		
16	Cr																		
17	Pb																		
18	Hg																		
19	Ag																		
20	Tl																		
21																			
22	Stack Gas Flowrate																		
23	Oxygen																		
24																			
25	Thermal Feedrate																		
26	Estimated Firing Rate																		
27																			
28																			
29	Feedrate MTEC Calculations																		
30	Chlorine																		
31	Ash																		
32	Sb																		
33	As																		
34	Ba																		
35	Be																		
36	Cd																		
37	Cr																		
38	Pb																		
39	Hg																		
40	Ag																		
41	Tl																		
42																			
43																			
44	3037C2																		
45	Feedstream Description																		
46	Feed Class 2																		
47	Feed Rate																		
48	Heating Value																		
49	Chlorine																		
50	Ash																		
51	Sb																		
52	As																		
53	Ba																		
54	Be																		
55	Cd																		
56	Cr																		
57	Pb																		
58	Hg																		
59	Ag																		
60																			

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
61	TI		ug/mL		nd		0.1	nd	0.1	nd										
62	Stack Gas Flowrate		dscfm			845		979		996		940.0								
63	Oxygen		%			12.7		11.5		12.6		12.3								
65	Thermal Feedrate		MMBtu/hr			2.2		2.1		2.2		2.2								
67	Estimated Firing Rate		MMBtu/hr			2.2		3.0		2.7		2.6								
68																				
69	Feedrate MTEC Calculations																			
70	Chlorine		ug/dscm	y		1206746		805059		862712		958172								
71	Ash		mg/dscm	y		16		12		13		14								
72	Sb		ug/dscm	y	nd	0.8	nd	0.6	nd	0.6		0.7								
73	As		ug/dscm	y	nd	0.8	nd	0.6	nd	0.6		0.7								
74	Ba		ug/dscm	y	nd	15.3	nd	12.2	nd	12.3		13.3								
75	Be		ug/dscm	y	nd	3.8	nd	3.1	nd	3.1		3.3								
76	Cd		ug/dscm	y	nd	3.8	nd	3.1	nd	3.1		3.3								
77	Cr		ug/dscm	y		335.5		244.8		301.2		293.8								
78	Pb		ug/dscm	y	nd	7.6	nd	6.1	nd	6.1		6.6								
79	Hg		ug/dscm	y	nd	0.8	nd	0.6	nd	0.6		0.7								
80	Ag		ug/dscm	y	nd	3.8	nd	3.1	nd	3.1		3.3								
81	TI		ug/dscm	y	nd	15.3	nd	12.2	nd	12.3		13.3								
82																				
83																				
84	3037C3																			
85																				
86	Feedstream Description																			
87	Feed Class 2																			
88	Feed Rate		lb/hr			298.65		300		300.12		299.6								
89	Heating Value		Btu/lb			9776		9883		9872										
90	Chlorine		wt %			0.712		0.768		0.775										
91	Ash		wt %			0.03		0.21		0.12										
92	Sb		ug/mL		nd	0.005	nd	0.005	nd	0.005										
93	As		ug/mL		nd	0.005	nd	0.005	nd	0.005										
94	Ba		ug/mL		nd	0.1	nd	0.1	nd	0.1										
95	Be		ug/mL		nd	0.025	nd	0.025	nd	0.025										
96	Cd		ug/mL		nd	0.025	nd	0.025	nd	0.025										
97	Cr		ug/mL		nd	0.23	nd	0.12	nd	0.09										
98	Pb		ug/mL		nd	0.05	nd	0.05	nd	0.05										
99	Hg		ug/mL		nd	0.005	nd	0.005	nd	0.005										
100	Ag		ug/mL		nd	0.025	nd	0.025	nd	0.025										
101	TI		ug/mL		nd	0.1	nd	0.1	nd	0.1										
102																				
103	Stack Gas Flowrate		dscfm			1171		1013		1032		1072.0								
104	Oxygen		%			12		12.1		11.8		12.0								
105																				
106	Thermal Feedrate		MMBtu/hr			2.9		3.0		3.0		2.9								
107	Estimated Firing Rate		MMBtu/hr			3.3		2.9		3.0		3.1								
108																				
109	Feedrate MTEC Calculations																			
110	Chlorine		ug/dscm	y		755248		956597		917013		876286								
111	Ash		mg/dscm	y		32		262		142		145								
112	Sb		ug/dscm	y	nd	0.8	nd	0.6	nd	0.6		0.7								
113	As		ug/dscm	y	nd	0.8	nd	0.6	nd	0.6		0.7								
114	Ba		ug/dscm	y	nd	15.3	nd	12.2	nd	12.3		13.3								
115	Be		ug/dscm	y	nd	3.8	nd	3.1	nd	3.1		3.3								
116	Cd		ug/dscm	y	nd	3.8	nd	3.1	nd	3.1		3.3								
117	Cr		ug/dscm	y	nd	35.1	nd	14.7	nd	11.1		20.3								
118	Pb		ug/dscm	y	nd	7.6	nd	6.1	nd	6.1		6.6								
119	Hg		ug/dscm	y	nd	0.8	nd	0.6	nd	0.6		0.7								
120	Ag		ug/dscm	y	nd	3.8	nd	3.1	nd	3.1		3.3								

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
121	TI																			
122			ug/dscm	y	nd		15.3	nd	12.2	nd		12.3								13.3
123																				
124																				
125	3037C4																			
126																				
127	Feedstream Description																			
128	Feed Class 2																			
129	Feed Rate		lb/hr				300.04		299.8			299.77								
130	Heating Value		Btu/lb				10034		9804			9640								
131	Chlorine		wt %				0.643		0.735			0.71								
132	Ash		wt %				0.08		0.055			0.13								
133	Sb		ug/mL		nd		0.005	nd	0.005	nd		0.005								
134	As		ug/mL		nd		0.005	nd	0.005	nd		0.005								
135	Ba		ug/mL		nd		0.1	nd	0.1	nd		0.1								
136	Be		ug/mL		nd		0.025	nd	0.025	nd		0.025								
137	Cd		ug/mL		nd		0.025	nd	0.025	nd		0.025								
138	Cr		ug/mL		nd		0.05		0.05			0.1								
139	Pb		ug/mL		nd		0.05	nd	0.05	nd		0.05								
140	Hg		ug/mL		nd		0.005	nd	0.005	nd		0.005								
141	Ag		ug/mL		nd		0.025	nd	0.025	nd		0.025								
142	TI		ug/mL		nd		0.1	nd	0.1	nd		0.1								
143																				
144	Stack Gas Flowrate		dscfm				1253		1296			1218								
145	Oxygen		%				12.5		11.8			12.9								
146																				
147	Thermal Feedrate		MMBtu/hr				3.0		2.9			2.9								
148	Estimated Firing Rate		MMBtu/hr				3.4		3.8			3.1								
149																				
150	Feedrate MTEC Calculations																			
151	Chlorine		ug/dscm	y			678057		691787			807533								
152	Ash		mg/dscm	y			84		52			148								
153	Sb		ug/dscm	y	nd		0.8	nd	0.6	nd		0.6								
154	As		ug/dscm	y	nd		0.8	nd	0.6	nd		0.6								
155	Ba		ug/dscm	y	nd		15.3	nd	12.2	nd		12.3								
156	Be		ug/dscm	y	nd		3.8	nd	3.1	nd		3.1								
157	Cd		ug/dscm	y	nd		3.8	nd	3.1	nd		3.1								
158	Cr		ug/dscm	y	nd		7.6		6.1			12.3								
159	Pb		ug/dscm	y	nd		7.6	nd	6.1	nd		6.1								
160	Hg		ug/dscm	y	nd		0.8	nd	0.6	nd		0.6								
161	Ag		ug/dscm	y	nd		3.8	nd	3.1	nd		3.1								
162	TI		ug/dscm	y	nd		15.3	nd	12.2	nd		12.3								

	B	C	D	E
1	Process Information			
2				
3	3037C1			
4	Cond Avg			