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p-Dioxin Project

Analysis of TCP process streams for presence of dioxins was continued. Attempts to remove dioxins by filtration of diluted TCP solution with Ei-Flo filter-aid proved successful. The dioxins removed were accounted for by chromatographing the solvent extract of the filter cake obtained. TCP solutions were diluted with water to various levels before filtering to determine minimum dilution necessary for effective removal of dioxins by this method. Results showed that dilution to 10% TCP concentration was necessary. Data of analyses is listed below:

Sample	Source	p-Dioxin Content(ppm)	Pts./10^6 pts. 100% TCP
31% TCP Solution	Still final(Bas.3217-23	28	90
"T" M.L.	M.L. storage tank	None detected.	
28% TCP Solution	Tank 137 (Spld. 6/8/65)	39	140
44% TCP Solution	Still Charge(Bas.3224-29)	38	86
44% TCP Solution (Diluted and filtered)	Still Charge(Bas.3224-29)	None detected.	
44% TCP Solution (Filter Cake)	Still Charge(Bas.3224-29)	35(Based on 44% solution)	80
28% TCP Solution	Tank 132 (Spld. 6/23/65)	22	80
28% TCP Solution (Filtered,as is)	Tank 132 (Spld. 6/23/65)	8	28
28% TCP Solution (Filtered at 20%)	Tank 132 (Spld. 6/23/65)	.5	18
28% TCP Solution (Filtered at 15%)	Tank 132 (Spld. 6/23/65)	None detected.*	
28% TCP Solution (Filtered at 10%)	Tank 132 (Spld. 6/23/65)	None detected.	
36% TCP Solution	Still final(Bas.3230-36)	19	53
40% TCP Solution	Still charge	25	62

* Unidentified impurity which elutes from chromatograph just after p-dioxin was not removed at 15%, but it is eliminated by diluting to 10% level before filtering. This impurity might be one of the isomers of p-dioxin to which Dow refers.

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