UNION CARBIDE

INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

P. O. BOX 471, TEXAS CITY, TEXAS 77590

TO NAME: Mr. F. L. Johnson
COMPANY: Building 28
LOCATION: TEXAS CITY PLANT

DATE: July 26, 1976

COPY TO: Mr. M. F. Eisenhour
Mr. D. L. Frantz
Mr. C. F. Jacquard
Mr. P. M. Wheeler - 514

SUBJECT:

Frank:

At your request, spot samples of DSAL-7 were obtained from the No. 4 Bagging Room and analyzed for residual VCM. A comparison with the original bin analysis (taken from top of bin after blending) is as follows:

Blend No.	Date	Time	Residual VCM, ppm Bin	Bag
B-1045	7-20	3:00 p.m.	3	10
B-1083	7-21	1:00 p.m.	18	3
B-1090	7-22	10:00 a.m.	0	<1
B-1093	7-23	10:00 a.m.	1	Nil

The data seem to indicate a trend of a slight reduction in residual VCM occurring as resin is transferred from storage bin into bagging room. This observation is not unexpected.

Please let me know if additional information is desired.

Very truly yours,

R. T. Arnold

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UC 149-2

UNION CARBIDE

INTERNAL CORRESPONDENCE

RECEIVED

JUL 29 1976

PLANT DISTRIBUTION

CHEMICALS AND PLASTICS

P. O. BOX 471, TEXAS CITY, TEXAS 77590

TO (NAME) Mr. F. L. Johnson
COMPANY Building 30
LOCATION TEXAS CITY PLANT

DATE July 26, 1976

COPY TO Mr. M. C. Eisenhour
Mr. D. L. Franz
Mr. J. F. Jacquard
Mr. R. L. Wheeler - Bldg.

Frank:

At your request, spot samples of DSAL-7 were obtained from the No. 4 Bagging Room and analyzed for residual VCM. A comparison with the original bin analysis (taken from top of bin after blending) is as follows:

Blend No.	Date	Time	Residual VCM, ppm Bin	Bag
B-1075	7-20	3:00 p.m.	3	10
B-1083	7-21	1:00 p.m.	18	3
B-1086	7-22	10:00 a.m.	9	<1
B-1091	7-23	10:30 a.m.	1	Nil

The data seem to indicate a trend of a slight reduction in residual VCM occurring as resin is transferred from storage bin into bagging room. This observation is not unexpected.

Please let me know if additional information is desired.

Very truly yours,

R. L. Arnold

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UNION CARBIDE INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

P. O. BOX 471, TEXAS CITY, TEXAS 77590

NAME: Mr. [illegible] May
COMPANY: Building 514
LOCATION: TEXAS CITY PLANT

DATE: July 7, 1976

COPY TO: Mr. [illegible] [illegible]enbour
Mr. [illegible] [illegible]ntz
Mr. [illegible] [illegible]terson
Mr. [illegible] [illegible]e
✓ Mr. [illegible] Jacquard
Mr. [illegible] Wheeler - 514

SUBJECT:

Dear [illegible]:

[illegible] request, spot samples of VYNW were obtained from the slurry tank, dryer feed (off the Bird) and dryer to determine residual vinyl chloride. These data are shown in the attached table.

The data indicate that a reduction of residual VCM from approximately 2000 ppm to ~ 50 ppm occurs during various drying stages at Building 120.

Please let me know if additional information is desired.

Very truly yours,

R. M. Arnold

[illegible]
Attachment

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ANALYSIS OF VCM SAMPLES OBTAINED

FROM BUILDING 120 DRYERS

Sample	Date	Time	VCM, ppm
Slurry [illegible] Dryer Spot	6-28	10:00 a.m.	2293 810 15
Slurry [illegible] Dryer Spot	6-30	10:00 a.m.	1829 868 23
[illegible]	7-1	10:00 a.m.	3206 228 46
[illegible]	7-2	10:00 a.m.	3416 706 [illegible]

Note: Slurry and Bird Cake Samples Adjusted for Total Solids.

RESIDUAL VCM ANALYSIS

TEXAS CITY VINYL RESINS PRODUCTION

JUNE, 1976

Authors: R. M. Arnold
L. D. Morgan

Supervisor: G. F. Tacquard

Date: July 2, 1976

Attached in Table I is a summary of the residual VCM levels in suspension vinyl resin products produced during the month of June. The residual VCM level in QSAL-7 and QSAL-7 production showed a slight decrease from the May production.

A dramatic decrease in residual VCM levels was observed in QSDF-7 production from the last production run (June, 1975). A decrease in blend analysis from 600 ppm to 60 ppm was observed. VSKY-10 and VSJE-10 showed no obvious change in residual VCM levels from recent production runs.

Tables II-XII summarize individual bin and blend data from suspension vinyl resin production during the month. Also shown in Tables XIII and XIV are residual VCM levels in non-solvent and solvent production, respectively. One VYHH bin, one VYHD bin and one VYNS bin were blended to achieve < 1 ppm VCM.

/kw
Attachment

RESINS LABORATORIES
UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS DIVISION
TEXAS CITY PLANT

TABLE

SUMMARY OF VCM ANALYSIS OF SUSPENSION VINYL RESINS

JUNE, 19[illegible]

Resin Type	VCM, ppm		% Blends	
	Bin	Blend	< 10 ppm VCM	< 1 ppm VCM
QCAL-7	7	3	97	36
QSAN-7	-	4	88	26
QSAN-7	20	28	15	-
QSQF-7	106	64	-	-
VSKK-10	898	648	-	-
VSQE-10	603	375	-	-

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TABLE I

RESIDUAL VCM CONTENT OF OSAL-7 BLEND SAMPLES

JUNE, 1976

Blend Number	VCM, ppm	Blend Number	VCM, ppm
994	4	1020	2
995	2	1021	1
996	2	1022	1
997	5	1023	< 1
998	2	1024	2
999	2	1025	< 1
993	16	1026	< 1
994	4	1027	-
995	2	1028	< 1
996	< 1	1029	2
997	2	1030	3
998	< 1	1031	2
999	2	1032	1
1000	1	1033	3
1001	< 1	1034	< 1
1002	< 1	1035	< 1
1003	< 1	1036	-
1004	2	1037	< 1
1005	< 1	1038	< 1
1006	< 1	1039	7
1007	< 1	1040	3
1008	3	1041	< 1
1009	2	1042	2
1010	4	1043	1
1011	13	1044	3
1012	1	1045	3
1013	3	1046	4
1014	< 1	1047	2
1015	1	1048	3
1016	2	1057	< 1
1017	1	1058	2
1018	2	1059	< 1
1019	2		

TABLE I I

RES'DUAL VC" CONTENT OF C'AN-7 BLEND SAMPLES

JUNE, 19 6

Blend Number	VC", ppm
6899	11
6900	5
6901	2
6902	< 1
6903	< 1
6904	1
6905	< 1
6906	< 1
6907	3
6908	8
6909	5
6910	4
6911	3
6912	10
6913	1
6914	5
6915	-
6916	2
6917	1
6918	1
6919	< 1
6920	2
6921	6
6922	< 1
6923	3
6924	-
6925	-
6926	19
6927	4

TABLE IV

RESIDUAL VCM CONTENT OF OSAW-7 BLEND SAMPLES

JUNE, 1976

Blend Number	VCM, ppm
1830	3
1831	34
1832	45
1833	21
1834	30
1835	7
1836	7
1837	24
1838	20
1839	20
1840	36
1841	34
1842	22
1843	13
1844	146
1845	22
1846	11
1847	23
1848	17
1849	-
1850	19

TABLE I

RESIDUAL VCM CONTENT OF QUOF BLEND SAMPLES

JUNE, 1976

Blend Number	VCM, ppm
334	34
335	44
336	44
337	22
338	25
339	41
340	66
341	125
342	83
343	63
344	45
345	90
346	164
347	62
348	50

TABLE V'

RESIDUAL VCM CONTENT OF V'KK-10 BLEND SAMPLES

JUNE, 1976

Blend Number	VCM, ppm
1063	410
1064	929
1066	774
1068	478

TABLE VII

RESIDUAL VCM CONTENT OF VS-E-10 BLEND SAMPLES

JUNE, 1976

Blend Number	VCM, ppm	Blend Number	VCM, ppm
892	104	918	232
893	93	919	302
895	125	920	224
896	362	921	454
897	180	922	463
898	451	923	610
899	438	924	949
900	234	925	518
901	428	926	798
902	304	927	332
903	37	928	620
904	25	929	922
905	668	930	285
906	311	931	546
907	234	932	327
908	182	933	541
909	254	934	237
910	571	935	270
911	722	936	121
912	1012	937	351
913	256	938	485
914	394	939	45
915	198	940	65
916	243	941	164
917	226		

TABLE VIII

RESIDUAL VCM CONTENT OF CSAL-7 BIN SAMPLES
JUNE, 1976

Bin	Date	VCM, ppm	Bin	Date	VCM, ppm	Bin	Date	VCM, ppm
605	6-1	8	403	6-7	< 1	601	6-14	2
415	"	27	405	"	16	405	"	< 1
606	"	2	402	"	< 1	605	"	< 1
412	"	71	608	"	2	409	6-15	4
601	"	12	406	6-8	3	604	"	1
603	6-2	< 1	604	"	3	414	6-16	< 1
604	"	10	609	"	2	409	6-17	< 1
405	"	4	408	"	31	406	"	2
406	"	5	409	"	23	411	"	3
411	"	4	602	"	10	414	6-18	< 1
408	6-3	4	607	6-9	2	415	6-19	3
409	"	9	606	"	1	411	"	1
602	"	< 1	411	"	12	412	6-20	2
607	"	3	405	"	< 1	408	"	0
402	"	8	414	"	< 1	409	"	5
414	"	10	604	"	1	403	6-21	3
412	6-4	7	608	6-10	5	414	"	26
606	"	2	403	"	8	401	"	30
115	"	3	601	"	3	406	"	1
405	"	< 1	607	"	1	411	6-22	1
406	"	5	602	6-11	3	408	6-23	4
604	"	< 1	606	"	4	412	"	3
411	6-5	< 1	608	"	3	406	6-24	127
409	"	< 1	406	"	2	409	"	12
607	"	< 1	605	"	< 1	414	6-25	33
604	6-6	4	604	6-12	2	412	6-26	18
408	"	50	606	"	< 1	602	6-27	3
602	"	< 1	406	"	1	603	6-28	3
606	"	< 1	414	6-13	4	606	"	2
609	"	4	602	"	< 1	607	6-29	5
414	"	< 1	403	"	< 1	604	"	2
605	"	< 1	411	"	2	609	6-30	< 1
602	"	9	609	"	2	608	"	1

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TABLE IX

RESIDUAL VCM CONTENT OF OSAKA-7 BIN SAMPLES

JUNE, 1976

Bin	Date	VCM, ppm
403	6-26	14
402	"	4
405	"	8
411	6-27	40
406	"	26
408	"	29
414	"	4
411	6-28	11
403	"	4
402	"	42
412	"	38
408	6-29	23
405	"	13
409	6-30	24
412	"	31
411	"	16
403	"	12

TABLE X

RESIDUAL VCM CONTENT OF DSOF-7 BIN SAMPLES

JUNE, 1976

Bin	Date	VCM, ppm
608	6-20	68
605	6-21	63
604	"	55
602	6-22	63
601	"	55
603	"	48
607	"	59
601	6-23	128
606	"	107
604	6-24	118
602	"	147
605	"	214
607	"	99
603	6-25	254

RESIDUAL VCM CONTENT OF [illegible] BIN SAMPLES

JUNE, 1976

Bin	Date	VCM, ppm
702	6-24	1588
708	"	642
705	6-25	900
709	"	991
707	6-26	671
703	"	950
704	6-27	829
701	"	1076
702	"	867
705	6-28	647
708	6-29	336
702	"	1545
707	6-30	1051
704	"	480

TABLE XII

RESIDUAL VCM CONTENT OF VSJE-10 BIN SAMPLES

JUNE, 1976

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	E-1	913	[illegible]	E-13	[illegible]
705	"	202	704	E-15	[illegible]
707	"	229	709	"	332
706	"	499	706	E-16	1178
709	E-2	397	707	"	1099
703	"	348	701	E-17	1009
704	E-3	498	704	"	993
701	"	427	703	"	797
705	"	695	705	"	692
706	"	349	709	E-18	927
707	E-4	550	702	E-19	779
708	"	387	707	"	1155
703	"	618	704	E-19	897
709	E-5	349	705	E-20	395
706	E-6	594	701	E-21	691
703	"	652	704	"	445
704	"	1119	707	"	531
701	E-7	1483	702	"	413
707	"	1260	703	E-22	161
702	E-8	1040	705	"	535
708	E-9	460	706	"	608
709	E-10	250	708	"	493
702	E-11	285	702	E-23	393
707	"	286	704	"	563
702	E-12	338	709	"	162
703	E-13	512	701	"	480

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TABLE XIII

RESIDUAL VCM CONTENT OF NON-SOLVENT BLEND SAMPLES

JUNE, 1976

VYNW		CYNL	
Blend Number	VCM, ppm	Blend Number	VCM, ppm
3931	33	1474	6
3932	8	1475	3
3933	10	1476	3
3934	2	1477	1
3935	7	1478	2
3936	2	1479	4
		1480	8

TABLE XIV

RESIDUAL VCM CONTENT OF SOLVENT VINYL RESIN BIN SAMPLES

JUNE, 1976

VYHH		VMCH		VMCC		VYHD		VYNS	
Bin	VCM, ppm	Bin	VCM, ppm	Bin	VCM, ppm	Bin	VCM, ppm	Bin	VCM, ppm
61	< .2	72	< .2	72	< .2	31	.3	11	< .2
41	< .2	71	< .2	84	< .2	32	< .2	12	< .2
64	< .2	82	< .2	83	.2	33	< .2	21	< .2
34	< .2	82	< .2	74	< .2			22	.2
51	< .2	71	< .2	74	.2			23	0.9
62	0.6			71	< .2			13	< .2
52	< .2							14	0.2
41	< .2							21	< .2
63	< .2							22	< .2
34	< .2								
43	< .2								
44	< .2								
61	< .2								
51	< .2								

DISTRIBUTION

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TAFT

Mr. A. S. Amatangelo

RESIDUAL VCM ANALYSIS

TEXAS CITY VINYL RESINS PRODUCTION

May, 1976

Author: R. M. Arnold
L. D. Morgan

Supervisor: ✓ G. F. Tacquard

Date: June 9, 1976

Attached in Table I is a summary of the residual VCM levels in suspension vinyl resin products produced during the month of May. Essentially all of the QSAN-7 production shown in this data is resin having the QSAL-7 molecular weight. Thus, a slight increase in residual VCM levels of QSAN-7/QSAL-7 production was observed when compared with actual QSAN-7 production during April. A slight decrease in residual VCM in QSAH-7 production during the month was also observed. Individual bin and blend data for suspension resin produced during the month are shown in Tables II-VIII.

Also shown in Tables IX and X are residual VCM levels in non-solvent and solvent production during May. One VMCH bin and one VYHD bin were blended to achieve 1 ppm VCM.

/mf

Attachments

RESINS LABORATORIES
UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS DIVISION
TEXAS CITY PLANT

TABLE I

SUMMARY OF VCM ANALYSIS OF SUSPENSION VINYL RESINS

May, 197E

Resin Type	VCM, ppm Bin	VCM, ppm Blend	Pct Blends <1(ppm VCM	<1 ppm VCM
QSAN-7	---	13	64	12
QSAL-7	16	10	59	9
QSAH-7	42	29	16	--
QSAP-7	14	20	62	46

TAB

RESIDUAL VCM CONTENT OF QSAN-7 BLEND SAMPLES

May, 1976

Blend No.	VCM, ppm	Blend No.	VCM, ppm	Blend No.	VCM, ppm
		6844	11	6885	1
6800	7	6845	8	6886	3
6806	17	6846	20	6888	22
6809	29	6847	4	6889	<1
6810	13	6848	9	6890	4
6811	7	6849	3	6892	4
6812	4	6850	10	6895	2
6813	4	6851	15	6896	1
6814	24	6852	3	6897	2
6815	5	6853	5	6898	1
6816	10	6854	1		
6817	3	6855	2		
6818	13	6856	<1		
6819	7	6857	9		
6820	17	6858	<1		
6821	1	6859	4		
6822	32	6860	31		
6823	30	6861	34		
6824	3	6862	2		
6825	9	6863	<1		
6826	13	6864	1		
6827	8	6865	3		
6828	14	6866	12		
6829	7	6867	5		
6830	103	6869	3		
6831	8	6870	<1		
6832	22	6871	10		
6833	1	6872	10		
6834	17	6873	73		
6835	148	6874	5		
6836	10	6875	12		
6837	25	6876	19		
6838	3	6877	<1		
6839	12	6880	2		
6840	11	6881	13		
6841	35	6882	13		
4842	24	6883	4		
6843	10	6884	7		

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TABLE III

RESIDUAL VCM CONTENT OF QSAH-7 BLEND SAMPLES

May, 1976

Blend No.	VCM, ppm
1820	10
1821	22
1822	67
1823	270
1824	111
1825	93
1826	22
1827	72
1828	24

TABLE IV

RESIDUAL VCM CONTENT OF QSAP-7 BLEND SAMPLES

May, 1976

Blend No.	VCM, ppm
714	15
715	<1
740	2
741	16
742	<1
743	10
744	<1
746	6
747	1
748	25
749	<1
750	<1
751	<1
752	31
753	<1
754	14
755	20
756	<1
757	2
758	<1
759	34
760	3
761	21
762	<1
763	190
764	1
765	2
766	<1
767	173
768	15
769	<1
770	<1
771	65
772	<1
773	65
774	<1

TABLE V

RESIDUAL VCM CONTENT OF QSAL-7 BLEND SAMPLES

May, 1976

Blend No.	VCM, ppm
969	18
970	11
971	11
972	<1
973	48
976	<1
977	5
979	6
981	<1
982	3
983	2

TABLE VI

RESIDUAL VCM CONTENT OF QSAL-7 BIN SAMPLES

May, 1976

Bin No.	Date	VCM, ppm	Bin No.	Date	VCM, ppm	Bin No.	Date	VCM, ppm	Bin No.	Date	VCM, ppm
704	5-1	13	705	5-11	39	408	5-19	11	412	5-27	15
702	"	8	706	"	3	405	"	4	406	5-28	31
703	"	5	702	"	2	609	"	1	414	"	15
708	"	8	703	"	39	411	5-20	33	409	"	5
706	"	26	707	5-12	20	603	"	12	411	"	46
709	5-2	27	702	"	4	607	"	<1	415	"	2
705	"	7	701	"	13	608	"	12	405	"	2
701	"	1	705	5-13	17	409	"	11	403	5-29	<1
702	5-3	<1	703	"	74	605	"	10	406	"	10
703	"	37	701	5-14	40	606	"	7	606	"	<1
704	"	139	704	"	24	709	5-21	<1	412	5-30	40
702	"	<1	708	"	3	706	"	2	603	"	2
705	"	71	702	"	12	412	"	22	409	"	18
701	5-4	<1	706	"	46	415	"	15	411	"	4
703	"	<1	707	5-15	27	703	"	12	609	"	3
701	"	<1									
704	"	6	703	"	<1	406	5-22	5	601	"	<1
701	5-5	7	605	"	8	702	"	3	606	5-31	4
704	5-6	7	706	"	3	414	"	12	608	"	7
706	"	7	702	"	21	409	"	4	607	"	2
702	"	24	601	"	7	705	"	2	414	"	6
709	"	229	703	5-16	4	708	"	<1	603	"	2
708	"	10	607	"	33	702	5-23	14	406	"	22
703	5-7	24	705	"	1	402	"	8			
701	"	22	606	"	6	709	"	2			
705	"	43	603	5-17	5	703	"	7			
706	"	71	708	"	4	702	5-24	2			
704	5-8	6	702	"	4	411	"	3			
708	"	8	704	"	<1	705	"	15			
702	"	26	703	"	6	708	"	28			
705	5-9	8	701	"	78	408	5-25	7			
701	"	12	609	"	24	702	"	10			
704	"	8	601	"	28	409	"	2			
709	"	13	403	5-18	4	703	"	<1			
709	"	26	412	"	5	709	5-26	4			
708	5-10	12	414	"	6	706	"	<1			

TABLE VII

RESIDUAL VCM CONTENT OF QSAH-7 BIN SAMPLES

May, 1976

Bin No.	Date	VCM, ppm
409	5-10	257
403	"	12
412	5-11	2
405	5-12	6
408	"	52
411	"	12
412	5-14	15
414	"	31
405	"	33
402	"	28
408	"	32
406	5-15	27
403	"	10
415	"	<1
412	5-16	19
414	"	36
402	"	133
406	5-17	108
408	"	13
405	"	49
415	"	19
409	5-18	23
406	"	46

TABLE VIII

RESIDUAL VCM CONTENT OF QSAP-7 BIN SAMPLES

May, 1976

Bin No.	Date	VCM, ppm
604	5-1	<1
603	"	12
605	"	2
606	5-2	1
607	"	2
609	"	2
601	"	9
603	5-3	23
602	"	<1
604	"	<1
606	5-4	1
608	"	<1
607	"	15
601	5-5	3
602	"	15
603	"	<1
605	5-6	22
609	"	<1
608	"	<1
606	"	17
602	"	<1
607	"	8
605	5-7	45
601	"	2
603	5-8	93
607	"	2
605	"	2
608	"	143
609	5-9	2
603	"	43
601	"	1
602	5-10	1
604	"	<1
607	"	1

TABLE IX

RESIDUAL VCM CONTENT OF NON-SOLVENT BLEND SAMPLES

May, 1976

VYNW		OY:J	
Blend No.	VCM, ppm	Blend No.	VCM, ppm
3926	6	19	15
3927	3	20	3
3928	<1	21	<1
3929		18	21
3930	5		

TABLE X

RESIDUAL VCM CONTENT OF SOLVENT VINYL RESIN BIN SAMPLE

May, 1976

VYHH		VMCH		VYHD		
BIN NO.	ppm, VCM	BIN No.	ppm, VCM	BIN NO.	ppm, VCM	
54	0.4	82	<0.2	31	0.6	
53	<.2	71	<0.2	31	0.6	
52	0.2	73	<0.2	43	<.2	
52	0.6	82	<0.2	32	0.8	
62	<0.2	84	<0.2	33	1.0	
63	0.2	72	<0.2	33	1.0	Resample
54	0.2	81	<0.2	34	0.9	
51	<0.2	73	<0.2			
41	<0.2	74	<0.2			
61	<0.2	84	<0.2			
52	<0.2	72	<0.2			
62	<0.2	83	0.6			
53	0.2	71	<0.2			
63	0.2	82	<0.2			
		72	<0.2			
		81	<0.2			
		74	<0.2			
		84	<0.2			
		71	<0.2			
		73	<0.2			
		74	<0.2			
		83	<0.2			

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