Vista Chemical Company

12024 Vista Parke Drive
Austin, Texas 78726-4050
(512) 331-2500

P.O. Box 200135
Austin, Texas 78720-0135
Fax (512) 331-2087

8e

8EHQ-0894-13121

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ORIGINAL

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8EHQ-94-13121
INIT 08/01/94

July 25, 1994

Document Processing Center (TS-790)
Office of Toxic Substances
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

88940000363

ATTN: 8(e) Coordinator

Subject: Section 8(e) Submission

Dear Sir:

Vista Chemical Company (Vista) hereby submits in accordance with section 8(e) of the Toxic Substances Control Act reports of chemical analyses showing the concentrations of specific polychlorinated dibenzo-p-dioxin (dioxins), dibenzofuran (furans) and polychlorinated biphenyl (PCB) congeners present in two Swedish PVC suspension resin samples. It is Vista's understanding that this analysis was conducted under the sponsorship of the Swedish EPA.

Part of this information was reported in an article in the June 15, 1994 issue of Pesticide and Toxic Chemical News, which is a publication to which an EPA headquarters library subscribes. Accordingly, some of the information in this submission may already be known to the EPA Administrator. However, this article may not have contained all the information the Agency would consider reportable under section 8(e). Consequently, this submission is intended to fully discharge any remaining reporting obligation Vista may have under section 8(e).

Vista believes that the lack of detail in these reports regarding the methodology used in these analyses severely limits their usefulness for the purposes of section 8(e). Perhaps most significant is the lack of information on controls to account for potential contamination during sampling, handling and analytical procedures. This is particularly troubling in light of the fact that the low levels of dioxins, furans and PCBs reported could conceivably be the result of contamination from non-PVC related sources.

RECEIVED
6-29-95

Vista believes there is insufficient information to determine whether the two samples in question are representative of materials produced by U.S. manufacturers. Due to potential differences in manufacturing processes and emission control technology, Vista believes that it is inappropriate to extrapolate from the results of these analyses to U.S. manufactured materials.

Any questions concerning this submission should be directed to the undersigned.

Respectfully,

David Penney, Ph.D.
Research Manager/Toxicologist
Vista Chemical Company
12025 Vista Parke Drive
P.O. Box 200135
Austin, TX 78720-0135
(512) 331-2468

S A M P L E R E P O R T 93/10/29

Sample number: 06108017

Rubin code:

Rubin numeric:

Sample-code: Pekevic S116

Sample contact: ARG, Axel Nydegger

Type of sample: PVC suspension - PVC plastics

Sample origin: Neste Chemicals, Stenungsund

Collection date: 199302 Arrived SNV: 93/02/11

Longitude: 0 Latitude: 0

Sample amount: 400.00 Amount-unit: ml

Sample age: Sample sex:

Delivered to: SEK (930322)

Remarks: Polyvinyl chloride suspension (dry powder) used to make PVC

Remarks: plastic. 200 ml to SEK.

Remarks:

D I O X I N R E P O R T 93/10/29

Sample number: 0610e017

2

D I O X I N R E S U L T S

2378-TeCDD:	0.1	2378-TeCDF:	2.7
12378-PeCDD:	0.6	12348(78)PeCDF:	8.2
123478-HxCDD:	0.3	123478(9)HxCDF:	4.8
123678-HxCDD:	1.5	123678-HxCDF:	4.
123789-HxCDD:	1.1	123789-HxCDF:	1.6
1234678-HpCDD:	5.4	1234678-HpCDF:	13.
23478-PeCDF:	6.2		
234678-HxCDF:	8.2		
1234789-HpCDF:	2.4		
OCDD:	6.	OCDF:	7.4

TCDD equivalents: 6.33

R E S U L T P A R A M E T E R S

Unit: pg/g dry weight

Amount analyzed: 20.20 Amount-unit: g

Extracted fat(%): 0.00 Method code: 0

Remarks:

P C B R E P O R T 93/10/29

Sample number: 0610#017

3

P C B - R E S U L T S

3344-TeCB: 31.00

33445-PeCB: 18.00

334455-HxCB: 4.70

PeCB(105): 68.00

PeCB(118): 399.00

Unit: pg/g dry weight

R E S U L T P A R A M E T E R S

Amount analysed: 20.20

Amount-unit: g

Extracted fat(%): 0.00

Method code: 0

Remarks: Umeå method

O T H E R P C Bs R E S U L T

TrCB(28): 0.00

TrCB(52): 0.00

PeCB(101): 0.00

PeCB(118): 0.00

HxCB(138): 0.00

HxCB(153): 0.00

HpCB(180): 0.00

Sum of seven PCBs: 0.00

Total PCB (packed col.): 0.00

Unit:

O T H E R R E S U L T P A R A M E T E R S

Amount analyzed: 0.00

Amount-unit:

Extracted lipid(%): 0.00

Method code: 0

Remarks:

PVC ANALYSIS SAMPLE MPR 1559:1

TCDD/TCDF	0.55 PG/G N-TEQ
PCB	0.30 PG/G N-TEQ
SUM	0.85 PG/G N-TEQ

DETAILED ANALYTICAL RESULTS FOLLOW.

THESE CONCENTRATIONS CAN BE COMPARED TO A NUMBER OF SAMPLES ANALYSED FOR DIOXINS. A FEW EXAMPLES FOLLOW.

4

SAMPLE	PCDD/PCDF pg/g N-TEQ	REFERENCE
Agricultural soil	5-7	Rappe and Kjeller (1987), de Jong et al (1990)
Industrial soil	< 135	ibid
Soil near incinerator	20 - 80	ibid
Grass	1 - 43	Rechem Intl (1991)
Meat	0.68	HMSO (1992)
Norvinyl PVC Hydro Plast	0.55	Kjeller, Kulp, Rappe (1993)

Resultat: PCDD och PCDF i miljöprover.
Alla resultat i pg/g.

Vår beteckning	H1559:1	H1559:2
Att. nr.	BLANK	BLANK
Provvikt (g)	"10"	"10"
2,3,7,8-TCDF	ND(.8)	0.8
Tot. TCDF's	ND	18
2,3,7,8-TCDD	ND(1.1)	ND(.4)
Tot. TCDD's	ND	ND
1,2,3,4,8-/		
1,2,3,7,8-PeCDF	ND(.6)	1.6
2,3,4,7,8-PeCDF	ND(.7)	1.5
Tot. PeCDF's	ND	13
1,2,3,7,8-PeCDD	ND(1.1)	ND(.6)
Tot. PeCDD's	ND	4.4
1,2,3,4,7,8-/		
1,2,3,4,7,8-HxCDF	ND(.9)	1.2
1,2,3,6,7,8-HxCDF	ND(.8)	1.1
1,2,3,7,8,9-HxCDF	ND(1.5)	ND(1.2)
2,3,4,6,7,8-HxCDF	ND(1)	1.4
Tot. HxCDF's	1.1	9.0
1,2,3,4,7,8-HxCDD	ND(1.6)	ND(1.4)
1,2,3,6,7,8-HxCDD	ND(1.4)	ND(1)
1,2,3,7,8,9-HxCDD	ND(1.6)	ND(1.3)
Tot. HxCDD's	ND	1.6
1,2,3,4,6,7,8-HpCDF	2.4	ND(.6)
1,2,3,4,7,8,9-HpCDF	ND(1.9)	ND(1.2)
Tot. HpCDF's	2.4	2.0
1,2,3,4,6,7,8-HpCDD	ND(2)	ND(1.1)
Tot. HpCDD's	ND	ND
OCDF	ND(3)	ND(2.7)
OCDD	ND(1.8)	ND(1.4)
N-TEQ/89	ND	1.2

Recovery of surrogate in %

Rec ^{13}C-2378-TCDF	49	84
Rec ^{13}C-2378-TCDD	50	88
Rec ^{13}C-23478-PeCDF	77	87
Rec ^{13}C-12378-PeCDD	78	94
Rec ^{13}C-123478-HxCDF	100	97
Rec ^{13}C-123789-HxCDF	110	150
Rec ^{13}C-123678-HxCDD	120	110
Rec ^{13}C-1234789-HpCDF	76	98
Rec ^{13}C-1234678-HpCDD	73	86
Rec ^{13}C-OCDF	80	83
Rec ^{13}C-OCDD	86	88

Resultat: PCB i miljöprover.
Alla resultat i pg/g.

Vår beteckning	MPR1559:1	MPR15F		pg/g
Att. nr.	6108019	320		
Vikt (g)	20.96	1(	TEF	N-TEQ
PCB118	450		0.0001	0,045
PCB105	58		0.001	0.058
PCB77	7.8		0.01	0.078
PCB126	1.2		0.1	0,12
PCB169	ND(.7)		0.05	0
				0.30 SUM
Återvinning i %:				
13C-118	21			
13C-105	26			
13C-77	45			
13C-126	54			
13C-169	67			

*- isotopförhållande

Resultat: PCB i miljöprover.
Alla resultat i pg/g.

Vår beteckning	MPR1559:1	MPR15P		pg/g	
Att. nr.	610x019	3205			
Vikt (g)	20.86	1(	TEF	N-TEQ	
PCB118	450		0.0001	0.1VE	
PCB105	58		0.001	0.058	
PCB77	7.8		0.01	0.078	
PCB126	1.2		0.1	0.12	
PCB169	ND(.7)		0.05	0	
				0.30	SUM
Återvinning i %:					
13C-118	21				
13C-105	26				
13C-77	45				
13C-126	54				
13C-169	67				

*- isotopförhållande

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The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats.  The predefined substance formats
are:  (RN = CAS Registry Number)

REG     - RN
SAM     - Index Name, MF, and structure - no RN
FIDE    - All substance data, except sequence data
IDE     - FIDE, but only 50 names
SQIDE   - IDE, plus sequence data
SQIDE3  - Same as SQIDE, but 3-letter amino acid codes are used
SQD     - Protein sequence data, includes RN
SQD3    - Same as SQD, but 3-letter amino acid codes are used
SQN     - Protein sequence name information, includes RN

Any CA File format may be combined wis dibenzofuran /cn
L5            1 DIBENZOFURAN /CN

=> dis rn

L5   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 1995 ACS
RN   132-64-9  REGISTRY

=> dis

L5   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 1995 ACS
RN   132-64-9  REGISTRY
CN     ***Dibenzofuran (8CI, 9CI)***    (CA INDEX NAME)
OTHER NAMES:
CN   2,2'-Biphenylene oxide
CN   2,2'-Biphenylylene oxide
CN   Dibenzo[b,d]furan
CN   Diphenylene oxide
CN   [1,1'-Biphenyl]-2,2'-diyl oxide
FS   3D CONCORD
MF   C12 H8 O
CI   COM, RPS
LC   STN Files:   ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2, BEILSTEIN*,
       BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAOLD, CAPREVIEWS, CASREACT,
       CHEMINFORMRX, CHEMLIST, CIN, CJACS, CSCHEM, CSNB, DETHERM*,
       DIPPR*, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
       MEDLINE, MSDS-OHS, MSDS-SUM, NAPRALERT, PDLCOM*, PIRA, PROMT,
       RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL, VTB
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)


   : C.      .O.     : C .
C :    . C .     . C:     . C
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.        :          .        :
.        :          .        :
C :    . C.........C:     . C
   : C.              : C .

              5 REFERENCES IN FILE CAPREVIEWS
           1513 REFERENCES IN FILE CA (1967 TO DATE)
           2804 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             42 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s pcb/cn
L6            3 PCB/CN

=> dis 1-3

L6   ANSWER 1 OF 3  REGISTRY  COPYRIGHT 1995 ACS
RN   64365-11-3  REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN
  files may result in incomplete search results.  For additional
  information, enter HELP RN* at an online arrow prompt (=>).
CN   Charcoal, activated  (CA INDEX NAME)
OTHER NAMES:
CN   207C
CN   Acta-Char
CN   Activated charcoal
CN   BPL 12X30
CN   Calgon BL
CN   Calgon C
CN   Calgon C 450
CN   Calgon CAL
CN   Calgon RC
CN   Carbopol Z 2
CN   Carboraffin
CN   Carboraffin C
CN   Carboraffin P
CN   Carborafine
CN   Charcoaid
CN   Charcocaps
CN   Chemviron F 400
CN   Darco
CN   Darco BG
CN   Darco FM 1
CN   Darco G 60
CN   Darco GFP
CN   Darco KB
CN   Darco S 51
CN   Darco S 51FF
CN   Darco S 51K
CN   Darco S 51RL
CN   Darco TRS
```

CN Desorex
CN Dezorex FB 4
CN HS 01
CN Hydrodarco 4000
CN Hydrodarco C
CN Hydrodarco H
CN Karborafin
CN Kintal FW
CN LA 100-325X
CN LAU
CN Medicoal
CN MSA 6
CN Norit A
CN Norit F
CN Norit FQA
CN Norit PN 3
CN Norit R 2030
CN Norit RBX 1
CN Norit ROX 0.8
CN Norit SA 2
CN Norit SA 4
CN Norit W 20
CN ***PCB***
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT -- Use FCN, FIDE, or ALL for DISPLAY
DR 114797-45-4, 114265-02-0, 88895-73-2, 12676-58-3
MF Unspecified
CI MAN CTS
LC

Triage of 8(e) Submissions

Date sent to triage: _____ NON-CAP CAP

Submission number: 13121A TSCA Inventory: Y N D

Study type (circle appropriate):

Group 1 - Dick Clements (1 copy total)

ECO AQUATO

Group 2 - Ernie Falke (1 copy total)

ATOX SBTOX SEN w/NEUR

Group 3 - Elizabeth Margosches (1 copy each)

STOX CTOX EPI RTOX GTOX

STOX/ONCO CTOX/ONCO IMMUNO CYTO NEUR

Other (FATE, EXPO, MET, etc.): EXPO

Notes:

THIS IS THE ORIGINAL 8(e) SUBMISSION; PLEASE REFILE AFTER TRIAGE DATABASE ENTRY

For Contractor Use Only

entire document: 0 1 2 **pages** 1, 2 **pages** —

Notes:

Contractor reviewer : FOR **Date:** 2/4/96

CECATS\TRIAGE TRACKING DBASE ENTRY FORM

CECATS DATA:
Submission # 8EHQ- 0894 -13121 SEQ. A

TYPE: INT SUPP FLWP

SUBMITTER NAME: Vista Chemical Company

INFORMATION REQUESTED: FLWP DATE:
0501 NO INFO REQUESTED
0502 INFO REQUESTED (TECH)
0503 INFO REQUESTED (VOL ACTIONS)
0504 INFO REQUESTED (REPORTING RATIONALE)

DISPOSITION:
0639 REFER TO CHEMICAL SCREENING
0678 CAP NOTICE

VOLUNTARY ACTIONS:
0401 NO ACTION REPORTED
0402 STUDIES PLANNED/UNDERWAY
0403 NOTIFICATION OF WORKERS/OTHERS
0404 LABEL/MSDS CHANGES
0405 PROCESS/HANDLING CHANGES
0406 APP./USE DISCONTINUED
0407 PRODUCTION DISCONTINUED
0408 CONFIDENTIAL

SUB. DATE: 07/25/94 OTS DATE: 08/01/94 CSRAD DATE: 08/29/95

CHEMICAL NAME: Dibenzofurans → none
Dibenzo-p-dioxin, polychlorinated
Polychlorinated Biphenyls (PCB)

CAS#
unknown → Dioxin, Dibenzo-p-, polychlorinated
132-64-9
1336-36-3

INFORMATION TYPE:		P F C
0201	ONCO (HUMAN)	01 02 04
0202	ONCO (ANIMAL)	01 02 04
0203	CELL TRANS (IN VITRO)	01 02 04
0204	MUTA (IN VITRO)	01 02 04
0205	MUTA (IN VIVO)	01 02 04
0206	REPRO/TERATO (HUMAN)	01 02 04
0207	REPRO/TERATO (ANIMAL)	01 02 04
0208	NEURO (HUMAN)	01 02 04
0209	NEURO (ANIMAL)	01 02 04
0210	ACUTE TOX. (HUMAN)	01 02 04
0211	CHR. TOX. (HUMAN)	01 02 04
0212	ACUTE TOX. (ANIMAL)	01 02 04
0213	SUB ACUTE TOX (ANIMAL)	01 02 04
0214	SUB CHRONIC TOX (ANIMAL)	01 02 04
0215	CHRONIC TOX (ANIMAL)	01 02 04

INFORMATION TYPE:		P F C
0216	EPI/CLIN	01 02 04
0217	HUMAN EXPOS (PROD CONTAM)	01 02 04
0218	HUMAN EXPOS (ACCIDENTAL)	01 02 04
0219	HUMAN EXPOS (MONITORING)	01 02 04
0220	ECO/AQUA TOX	01 02 04
0221	ENV. OCCC/REL/FATE	01 02 04
0222	EMER INCI OF ENV CONTAM	01 02 04
0223	RESPONSE REQEST DELAY	01 02 04
0224	PROD/COMP/CHEM ID	01 02 04
0225	REPORTING RATIONALE	01 02 04
0226	CONFIDENTIAL	01 02 04
0227	ALLERG (HUMAN)	01 02 04
0228	ALLERG (ANIMAL)	01 02 04
0239	METAB/PHARMACO (ANIMAL)	01 02 04
0240	METAB/PHARMACO (HUMAN)	01 02 04

INFORMATION TYPE:		P F C
0241	IMMUNO (ANIMAL)	01 02 04
0242	IMMUNO (HUMAN)	01 02 04
0243	CHEM/PHYS PROP	01 02 04
0244	CLASTO (IN VITRO)	01 02 04
0245	CLASTO (ANIMAL)	01 02 04
0246	CLASTO (HUMAN)	01 02 04
0247	DNA DAM/REPAIR	01 02 04
0248	PROD/USE/PROC	01 02 04
0251	MSDS	01 02 04
~~0299~~	~~OTHER~~ Groundwater contamination	01 02 04

TRIAGE DATA:

NON-CBI INVENTORY: YES / NO / DETERMINE

CAS SR

ONGOING REVIEW: YES (DROP/REFER) / NO (CONTINUE) / REFER:

SPECIES: N/A

TOXICOLOGICAL CONCERN: LOW / MED / HIGH

USE: PVC plastics

PRODUCTION:

COMMENTS: