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COMPANY SANITIZED

Hoechst Celanese Corporation
TSCA Section 8 (e)
Compliance Audit Program

Regulatee No. 8ECAP-0118

8EHQ-0592-4171 S INIT

To: Document Processing Center (TS-790)
Office of Toxic Substances
Environmental Protection Agency
401 M Street S.W. 20406
Attention: Section 8(e) Coordinator (CAP Agreement)

8892000028135

The attached information is being submitted pursuant to the TSCA Section 8 (e) Compliance Audit Program.

Nature of Submitted Material:

( ) Study or Report Involving Effects in Humans Under CAP Agreement II B. 2.a.

(X) Any Other Study or Report Under CAP Agreement II B. 2.b.

Identity of Chemical Substance:

C-932

Acetate Fiber Finish (mixture)

Title of Submitted Material:

C-932
A Two Week Inhalation Toxicity Study of C-932, C-810 and C-933 In The Rat

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Summary of Reportable Adverse Effects/Exposures:

The findings for C-932 reported in this document indicate that the test material produced increased absolute and relative lung weight increases for both male adn female rats. Relative kidney weights were increased for males. Pathology included hyperplasia/hypertrophy of the terminal bronchiole epithelium and alveoli/alveolar duct, interstitial chronic active inflammation and macrophages in alveoli; those involving primarily the females are atelectasis of the alveoli and emphysema of the alveoli, which is a reportable endpoint.

In a study sponsored by Hoechst-Celanese, rats were administered test material at 49.00 mg/m3 for two weeks (5 days/week). Critical organ effects (lung; emphysema) were noted.

Prior Submissions By Regulatee for Chemical Substance:

PMN: YES ( ) NO (X)

If "YES" Identify EPA Document Control Numbers Below:

8 (e): YES ( ) NO (X)

IF "YES" Identify EPA Document Control Numbers Below:

Hoechst Celanese Corporation
Route 202-206, P.O. Box 2500
Somerville, New Jersey 08876
Phone: 908-231-2000

By: MRSullivan

Michele R. Sullivan
Director--Product Safety
Phone: 908-231-4480

HOECHST CELANESE CORPORATION
TSCA SECTION 8(e)
COMPLIANCE AUDIT PROGRAM

Regulatee No. 8ECAP-0118

BUSINESS CONFIDENTIALITY CLAIM SUBSTANTIATION

1. Hoechst Celanese Corporation believes the chemical composition information being claimed as HCC Business Confidential Information in connection with the attached TSCA 8(e) CAP Program submission is not limited in its value to our Company by the passage of time, and should be continually maintained as confidential by EPA.

2. No adverse confidentiality determinations have been made by EPA, any other Federal agency, or courts with respect to this HCC Business Confidential Information.

3. The HCC Business Confidential Information has not been disclosed to individuals outside our company.

4. Hoechst Celanese Corporation is a Fortune 100 company, and engages in substantial research and development activities. As such, our Company is one with substantial policies and practices in place to protect all proprietary information and/or intellectual property, including the information for which Confidential Business Information status is being claimed.

5. The claimed HCC Business Confidential Information has not appeared in advertising or promotional information, in chemical or safety data sheets, in professional or trade publications or in other media available to the public or our competitors.

6. Disclosure of product composition would be of benefit to competitors and would harm our Company's ability to enable sell end products made utilizing the material whose composition is being claimed as confidential. In the industry into which the end product is sold, handling and processing characteristics are extremely important and in significant ways are attributable to the use by our Company of the substances for which chemical composition confidentiality is being claimed. We believe we enjoy significant advantages over competitors in connection with the sales of millions of pounds of these end products, and would be substantially harmed by disclosure of the chemical composition information.

7. The information being claimed as confidential is not "health and safety data" pursuant to 40 CFR Part 2.306(a)(3)(i).

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Bio/dynamics Inc.

Division of Biology and Safety Evaluation

NOTE HISTOPATHOLOGY REPORT ON C-932 ONLY.

C-22, 85-7845

A TWO WEEK INHALATION TOXICITY STUDY
OF C-932, C-810 and C-933 IN THE RAT

Addendum to Pathology Report

Submitted to: Hoescht-Celanese
Somerville, New Jersey

Att: Mr. William Thomas

Date: 1/5/88

Appendix J
A Two Week Inhalation Toxicity Study
of C-932, C-810 and C-933 in the Rat

Quality Assurance Statement[a]

Listed below are dates that this study was inspected by the Quality Assurance Unit of Bio/dynamics, Inc. and the dates findings were reported to the Study Director and Management.

Date(s) of Inspection	Reported to Study Director	Reported to Management
9/23/85 to 10/2/85	2/27/86	2/27/86 & 3/6/86
10/2/85	10/3/85	11/3/85
10/1/85	12/11/85	12/11/85 & 12/13/85
10/25/85	2/27/86	2/27/86 & 3/6/86
12/29/85	12/30/85	12/30/85
1/10/86	1/29/86	2/5/86 & 2/24/86
2/14-19/86	2/27/86	2/27/86 & 3/6/86
12/18/87	12/23/87	12/23/87 & 1/5/88

Florence S. Gilson
Florence S. Gilson, B.S., AALAS L.A.T.
Supervisor of Quality Assurance

January 6, 1988
Date

[a]Quality Assurance Statement was originally signed on 6 March 1986; statement was resigned due to additional audit of pathology addendum.

85-7845

A Two Week Inhalation Toxicity Study
of C-932, C-810 and C-933 in the Rat
Addendum to Pathology Report dated 10/30/85
LUNGS-HISTOPATHOLOGY, Groups I and II

85-7845

A Two Week Inhalation Toxicity Study
of C-932, C-810 and C-933 in the Rat
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LUNGS-HISTOPATHOLOGY, Groups I and II

Table of Contents

Summary Statement..... 3
Figure A..... 4

Table I
Identification and Disposition of Individual Animals..... 1 - 2

Table II
Summary Incidence of Histopathology Findings..... 1 - 2

Table III
Individual Animal Histopathology Findings..... 1 - 8

85-7845

A Two Week Inhalation Toxicity Study
of C-932, C-810 and C-933 in the Rat
Addendum to Pathology Report dated 10/30/85
LUNGS-HISTOPATHOLOGY, Groups I and II

Summary Statement of Histopathology Findings

At the request of the sponsor, and when available, the lungs, which had been infused with 10% neutral buffered formalin to approximate 75% of their volume prior to immersion into a larger volume of the same fixative, were routinely processed, embedded in paraffin, cut at 6 microns, mounted on glass slides and stained with hematoxylin and eosin for all of the animals of Group I (control) and II (exposure to C-932).

Microscopic findings in the lungs of individual animals are presented in Table III; a summary-incidence is presented in Table II. Table I is an identification and disposition summary. Postmortem findings which were observed grossly for these animals have been presented previously.

Microscopic findings which occurred in greater incidence and/or severity in the lungs of male and female treated (Group II) animals include hyperplasia/hypertrophy of terminal bronchiole epithelium and alveoli/alveolar duct, interstitial chronic active inflammation and macrophages in alveoli; those involving primarily the females of Group II are atelectasis of the alveoli and emphysema of the alveoli (Figure A). All other findings were not considered to be related to the administration of the test article.

William L. Wooding 12/22/87

William L. Wooding, D.V.M., M.S. Date
DIP. ACVP
Senior Pathologist

85-7845

A Two Week Inhalation Toxicity Study
of C-932, C-810 and C-933 in the Rat
Addendum to Pathology Report dated 10/30/85
LUNGS-HISTOPATHOLOGY, Groups I and II

Figure A

Lesion Mean Severity

ORGAN/TISSUE EXAMINED	SEX:	MALE		FEMALE	
	GROUP:	1	2	1	2
	NUMBER:	5	5	5	5
** TOP OF LIST **					
LUNGS (LU) NUMBER EXAMINED:		5	5	5	5
--TERMINAL BRONCHIOLE EPITHELIUM:HYPERPLASIA/HYPERTROPHY	1>	1	1	0	2
	2>	0	4	0	3
	TL>	1	5	0	5
	MN>	1.00	1.20	0.00	1.60
--EPITHELIUM-ALVEOLI/ALVEOLAR DUCT:HYPERPLASIA/HYPERTROPHY	1>	0	0	0	1
	2>	0	5	0	4
	TL>	0	5	0	5
	MN>	0.00	2.00	0.00	1.80
--INTERSTITIAL CHRONIC ACTIVE INFLAMMATION	1>	0	3	0	0
	2>	0	2	0	2
	3>	0	0	0	3
	TL>	0	5	0	5
	MN>	0.00	1.40	0.00	2.60
--ALVEOLI:MACROPHAGES	1>	5	0	5	0
	2>	0	5	0	3
	3>	0	0	0	2
	TL>	5	5	5	5
	MN>	1.00	2.00	1.00	2.40
--ALVEOLI:ATELECTASIS	1>	0	1	0	0
	2>	0	0	0	3
	TL>	0	1	0	3
	MN>	0.00	1.00	0.00	2.00
--ALVEOLI:EMPHYSEMA	1>	0	1	0	1
	2>	0	0	0	2
	TL>	0	1	0	3
	MN>	0.00	1.00	0.00	1.67

Lesion Mean Severity (MN)

$$MN = \frac{(1)(n_1) + (2)(n_2) + (3)(n_3) + (4)(n_4) + (5)(n_5)}{N_L}$$

n_x - where n = number of animals affected with a lesion of x severity
N_L - number of animals exhibiting a lesion
TL - Total number of lesions
MN - Lesion Mean Severity

Severity Codes
1 - minimal
2 - slight
3 - moderate
4 - moderately severe
5 - severe

Table I

A Two Week Inhalation Toxicity Study
of C-932, C-810 and C-933 in the Rat
Addendum to Pathology Report dated 10/30/85
LUNGS-HISTOPATHOLOGY, Groups I and II

Identification and Disposition of Individual Animals

ANIMAL NUMBER	DOSE GROUP	SEX	DEATH CODE	TYPE OF DEATH	DESCRIPTION OF DEATH	DATE OF DEATH	DAY OF STUDY	WEEK OF STUDY
1026	1	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
1027	1	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
1028	1	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
1029	1	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
1030	1	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2026	2	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2027	2	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2028	2	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2029	2	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2030	2	MALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
1526	1	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
1527	1	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
1528	1	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
1529	1	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
1530	1	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2526	2	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2527	2	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2528	2	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2529	2	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2
2530	2	FEMALE	T	SCHEDULED	TERMINAL SACRIFICE	10/04/85	12	2

Table II

A Two Week Inhalation Toxicity Study
of C-932, C-810 and C-933 in the Rat
Addendum to Pathology Report dated 10/30/85
LUNGS-HISTOPATHOLOGY, Groups I and II

Summary Incidence of Histopathology Findings

TABLE INCLUDES:
SEX=ALL;GROUP=1,2;SCREEN=ALL;WEEKS=ALL
DEATH=ALL;FIND=ALL;SUBSET=T

ORGAN AND FINDING DESCRIPTION	--- NUMBER OF ANIMALS AFFECTED ---			
SEX:	--MALE--		-FEMALE-	
GROUP:	-1-	-2-	-1-	-2-
NUMBER:	5	5	5	5
** TOP OF LIST **				
LUNGS (LU) ..... NUMBER EXAMINED:	5	5	5	5
--TERMINAL BRONCHIOLE EPITHELIUM:HYPERPLASIA/HYPERTROPHY	1	5	0	5
--EPITHELIUM-ALVEOLI/ALVEOLAR DUCT:HYPERPLASIA/HYPERTROPHY	0	5	0	5
--INTERSTITIAL CHRONIC ACTIVE INFLAMMATION	0	5	0	5
--ALVEOLI:MACROPHAGES	5	5	5	5
--ALVEOLI:ATELECTASIS	0	1	0	3
--ALVEOLI:EMPHYSEMA	0	1	0	3
--PERIVASCULAR/PERIBRONCHIOLAR LYMPHOCYTES	5	5	5	5
--ALVEOLI:ERYTHROCYTES	0	0	0	1
** END OF LIST **				

Table III

A Two Week Inhalation Toxicity Study
of C-932, C-810 and C-933 in the Rat
Addendum to Pathology Report dated 10/30/85
LUNGS-HISTOPATHOLOGY, Groups I and II

Individual Animal Histopathology Findings

THIS SHEET PRESENTS THE SYMBOLS, ABBREVIATIONS AND CODES USED IN THE "MICROSCOPIC EVALUATION OF TISSUES" TABLES TO INDICATE WHICH ORGAN/TISSUE FINDINGS WERE OBSERVED AND TO ASSIST IN MORE FULLY DESCRIBING THEM.

***** DISTRIBUTION OF FINDINGS *****

" 4 " NO BRACKETS/QUOTES = NOT SPECIFIED

"'4 " APOSTROPHE = FOCAL

""4 " QUOTE = MULTI-FOCAL

"]4[" INVERTED BRACKETS = DIFFUSE

***** GRADES FOR FINDING SEVERITY OR PRESENCE *****

" 1 " MINIMAL OR VERY SLIGHT DEGREE OR AMOUNT PRESENT

" 2 " SLIGHT DEGREE OR AMOUNT PRESENT

" 3 " MODERATE DEGREE OR AMOUNT PRESENT

" 4 " MODERATELY SEVERE DEGREE OR AMOUNT PRESENT

" 5 " SEVERE DEGREE OR LARGE AMOUNT PRESENT

***** ANIMAL DEATH CODES *****

" 1 " - " 6 " INTERIM SACRIFICES 1 THROUGH 6

" T " TERMINAL SACRIFICE

" P " POST-RECOVERY SACRIFICE #1

" Q " POST-RECOVERY SACRIFICE #2

" D " SPONTANEOUS DEATH

" A " ACCIDENTAL DEATH

" S " SACRIFICED MORIBUND

" O " OTHER TYPE OF DEATH

***** NEOPLASTIC FINDINGS *****

" B- " BENIGN NEOPLASM IN ORGAN/TISSUE

" M- " PRIMARY, MALIGNANT NEOPLASM IN ORGAN/TISSUE

" S- " METASTATIC NEOPLASM WITHIN ORGAN/TISSUE

" I- " NEOPLASM LOCALLY INVASIVE FROM NEARBY PRIMARY CANCER

" X- " OTHER NEOPLASM, EXPLAINED IN SPECIAL HISTO NOTE

" + " PRESENCE OF A NEOPLASTIC FINDING IN ORGAN/TISSUE

" +n " MORE THAN ONE NEOPLASM OF THE SAME TYPE PRESENT, WHERE 'n' EQUALS THE NUMBER PRESENT.

" +aa" SECONDARY NEOPLASM FROM ORGAN/TISSUE INDICATED BY THE ABBREVIATION, 'aa'. ('LI' = LIVER).

***** OTHER SYMBOLS AND NOTATIONS *****

" U " ORGAN/TISSUE NOT HISTOLOGICALLY REMARKABLE

" - " FINDING NOT PRESENT

" P " FINDING PRESENT (WHERE GRADING INAPPROPRIATE)

" Pn " MULTIPLE OCCURENCES OF FINDING PRESENT, WHERE 'n' EQUALS THE NUMBER PRESENT.

" * " TISSUE NOT AVAILABLE FOR EXAMINATION (MISSING)

" A " TISSUE NOT READABLE - AUTOLYTIC

" R " RE-CUT OF TISSUE REQUIRED

" H " SPECIAL HISTOLOGICAL COMMENT PRESENT

" N " TISSUE INSUFFICIENT

" V " RECUT INSUFFICIENT

"NMC" No Microscopic Correlate

Gross/Micro Corr=
Correlation of Gross and
Microscopic Findings

SD: 11 SEX: MALE DOSE-GROUP: 1

TABLE INCLUDES:
SEX=ALL;GROUP=1,2;SCREEN=ALL;WEEKS=ALL
DEATH=ALL;FIND=ALL;SUBSET=T

ORGAN AND FINDING DESCRIPTION					
SCREEN:	<1>	<1>	<1>	<1>	<1>
	1	1	1	1	1
	0	0	0	0	0
	2	2	2	2	3
	6	7	8	9	0
	=	=	=	=	=
DEATH CODES:	T	T	T	T	T
** TOP OF LIST **					
LUNGS (LU)					
--TERMINAL BRONCHIOLE EPITHELIUM:HYPERPLASIA/HYPERTROPHY	.	.	.	.	1
--EPITHELIUM-ALVEOLI/ALVEOLAR DUCT:HYPERPLASIA/HYPERTROPHY	.	.	.	.	.
--INTERSTITIAL CHRONIC ACTIVE INFLAMMATION	.	.	.	.	.
--ALVEOLI:MACROPHAGES	1	1	1	1	1
--ALVEOLI:ATELECTASIS	.	.	.	.	.
--ALVEOLI:EMPHYSEMA	.	.	.	.	.
--PERIVASCULAR/PERIBRONCHIOLAR LYMPHOCYTES	2	2	2	2	2
--ALVEOLI:ERYTHROCYTES	.	.	.	.	.
GROSS/MICRO CORR (G1)					
** END OF LIST **					

SD: 12 SEX: MALE DOSE-GROUP: 2

TABLE INCLUDES:
SEX=ALL;GROUP=1,2;SCREEN=ALL;WEEKS=ALL
DEATH=ALL;FIND=ALL;SUBSET=T

ORGAN AND FINDING DESCRIPTION					
SCREEN:	<1>	<1>	<1>	<1>	<1>
	2	2	2	2	2
	0	0	0	0	0
	2	2	2	2	3
	6	7	8	9	0
	-	-	-	-	-
DEATH CODES:	T	TM	T	TM	T
** TOP OF LIST **					
LUNGS (LU)					
--TERMINAL BRONCHIOLE EPITHELIUM:HYPERPLASIA/HYPERTROPHY	2	2	1	2	2
--EPITHELIUM-ALVEOLI/ALVEOLAR DUCT:HYPERPLASIA/HYPERTROPHY	2	2	2	2	2
--INTERSTITIAL CHRONIC ACTIVE INFLAMMATION	1	2	1	1	2
--ALVEOLI:MACROPHAGES	2	2	2	2	2
--ALVEOLI:ATELECTASIS	-	1	-	-	-
--ALVEOLI:EMPHYSEMA	-	1	-	-	-
--PERIVASCULAR/PERIBRONCHIOLAR LYMPHOCYTES	2	2	2	2	2
--ALVEOLI:ERYTHROCYTES	-	-	-	-	-
GROSS/MICRO CORR (G1)		M		M	
** END OF LIST **					

NAM	SDS	ABR	TISSUE	SPECIAL HISTOPATHOLOGICAL COMMENT
002027	121	G1	GROSS/MICRO CORR	GRAY FOCI IN LUNG:PERIVASCULAR/PERIBRONCHIOLAR LYMPHOCYTES
002029	121	G1	GROSS/MICRO CORR	RED FOCI IN LUNG:NMC

SD: 21 SEX: FEMALE DOSE-GROUP: 1

TABLE INCLUDES:
SEX=ALL;GROUP=1,2;SCREEN=ALL;WEEKS=ALL
DEATH=ALL;FIND=ALL;SUBSET=T

ORGAN AND FINDING DESCRIPTION					
SCREEN:	<1>	<1>	<1>	<1>	<1>
	1	1	1	1	1
	5	5	5	5	5
	2	2	2	2	3
	6	7	8	9	0
	-	-	-	-	-
** TOP OF LIST ** DEATH CODES:	T	T	T	T	T
LUNGS (LU)					
--TERMINAL BRONCHIOLE EPITHELIUM:HYPERPLASIA/HYPERTROPHY	-	-	-	-	-
--EPITHELIUM-ALVEOLI/ALVEOLAR DUCT:HYPERPLASIA/HYPERTROPHY	-	-	-	-	-
--INTERSTITIAL CHRONIC ACTIVE INFLAMMATION	-	-	-	-	-
--ALVEOLI:MACROPHAGES	1	1	1	1	1
--ALVEOLI:ATELECTASIS	-	-	-	-	-
--ALVEOLI:EMPHYSEMA	-	-	-	-	-
--PERIVASCULAR/PERIBRONCHIOLAR LYMPHOCYTES	2	2	2	2	1
--ALVEOLI:ERYTHROCYTES	-	-	-	-	-
GROSS/MICRO CORR (G1)					
** END OF LIST **					

SD: 22 SEX: FEMALE DOSE GROUP: 2

TABLE INCLUDES:
SEX=ALL;GROUP=1,2;SCREEN=ALL;WEEKS=ALL
DEATH=ALL;FIND=ALL;SUBSET=T

ORGAN AND FINDING DESCRIPTION					
SCREEN:	<1>	<1>	<1>	<1>	<1>
	2	2	2	2	2
	5	5	5	5	5
	2	2	2	2	3
	6	7	8	9	0
DEATH CODES:	T	T	T	T	TH
** TOP OF LIST **					
LUNGS (LU)					
--TERMINAL BRONCHIOLE EPITHELIUM:HYPERPLASIA/HYPERTROPHY	2	1	1	2	2
--EPITHELIUM-ALVEOLI/ALVEOLAR DUCT:HYPERPLASIA/HYPERTROPHY	2	2	1	2	2
--INTERSTITIAL CHRONIC ACTIVE INFLAMMATION	2	3	2	3	3
--ALVEOLI:MACROPHAGES	2	2	2	3	3
--ALVEOLI:ATELECTASIS	-	2	2	-	2
--ALVEOLI:EMPHYSEMA	-	1	2	-	2
--PERIVASCULAR/PERIBRONCHIOLAR LYMPHOCYTES	2	2	2	2	3
--ALVEOLI:ERYTHROCYTES	-	-	-	-	1
GROSS/MICRO CORR (G1)					H
** END OF LIST **					

NAM	SDS	ABR	TISSUE	SPECIAL HISTOPATHOLOGICAL COMMENT
002530	221	G1	GROSS/MICRO CORR	RED FOCI IN LUNG:INTERSTITIAL CHRONIC ACTIVE INFLAMMATION

CERTIFICATE OF AUTHENTICITY

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