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E. I. DU PONT DE NEMOURS & COMPANY CC: Environmental Quality Committee

INCORPORATED

WILMINGTON, DELAWARE 19898

ENGINEERING DEPARTMENT

July 28, 1976

MANUFACTURING ENVIRONMENTAL COMMITTEE
PRODUCT ENVIRONMENTAL COMMITTEE
OCCUPATIONAL SAFETY AND HEALTH COMMITTEE
HASKELL LABORATORY LIAISON COMMITTEE

CHEMICAL SUBSTANCES CLASSIFIED AS CARCINOGENS

Attached is a listing as of 7/22/76 of materials with their synonyms identified as carcinogens under the Federal Government, Occupational Safety and Health Act or Dr. E. A. Gee's letter of February 21, 1975, "Guidelines - Carcinogenic Effects of Chemical Substances Made or Used Within Du Pont".

The listing will be supplemented quarterly.

ENGINEERING SERVICE DIVISION

R. S. Pease

R. S. Pease, Consultant Manager
Occupational Environmental Control Group

RSP:ewk
Attachment

DUP 1001982

*Rec'd
8/13/76
CH*

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DEPT. ENGRS. OFFICE
POLYMER INTERMEDIATES DEPT

DVI

DU 050735

1/30/76	
Revised	2/6/76 4/20/76
	2/12/76 7/20/76
	3/15/76 7/22/76

Federal Register-Section 1910-Subpart 2

Du Pont Industrial Departments

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Standards classifying asbestos and coke oven emissions as carcinogens have been proposed, but have not been adopted.

DUP 1001983

DU 050736

FEDERAL REGISTER-SECTION 1910-SUBPART 7

Asbestos NSN*-C164-750 (CARN** 001332214)

amosite
amphibole
actinolite
amianthus
anthophyllite
asbestose (German)
ascarite
chrysotile
crocidolite
tremolite

Coal tar pitch volatiles

Composed of benzene, toluene, naphthalene, anthracene, xylene, phenol, cresol, ammonia, pyridine, thiophene, etc. each of which has many synonyms.

4-Nitrobiphenyl NSN-DV56000 (CARN-000092933)

biphenyl, 4-nitro-
p-Nitrobiphenyl
p-Nitrodiphenyl
4-Nitrodiphenyl
p-phenyl-nitrobenzene
4-phenyl-nitrobenzene
1, 1'-Biphenyl, 4-nitro-
1-Nitro-4-phenylbenzene
Ba 2794

* NSN - NIOSH Service Number

**CARN - Chemical Abstracts Registry Number

Alpha-Naphthylamine NSN-QM14-000 (CARN-000134327)

1-Naphthylamine
1-Naphthalenamine
Alfanaftilamina (Italian)
Alfa-Nafityloamina (Polish)
Alpha-Aminonaphthalene
1-Aminonaftalen (Czech)
1-Aminonaphthalene
Antioxidant-MB
C.I. Azoic Diazo Component 114
Fast Garnet B Base or (Base B)
1-Naftilamina (Spanish)
alpha-Nafitylamin (Czech)
1-Naftilamine (Dutch)
Naphthalidam
Naphthalidine
1-Naphthylamin (German)
C.I. 37265°

° Listed exclusively in TOXLINE

DUP 1001984

1-4 Methylene Bis (2-chloroaniline) NSN-CY10500 (CARN-000101144)

Benzenamine, 4, 4' - Methylenebis (2-chloro)
Aniline, 4, 4' - Methylenebis (2-chloro)
CL-MDA
Bis Amine
Curalin II
Curene 442
Cyanaset
DACPM
Di (4-amino-3-chlorophenyl) methane
4, 4'-Diamino-3, 3'-dichlorodiphenylmethane
3, 3'-Dichloro-4, 4'-diaminodiphenylmethane
4, 4'-Methylene bis-chloroaniline
Methylene 4, 4' bis (o-chloroaniline)
P, P'-Methylenebis (alpha chloroaniline)
4, 4'-Methylenebis (o-chloroaniline)
P, P'-Methylenebis (o-chloroaniline)
4, 4'-Methylenebis (2-chloroaniline)
MOCA
Quodorole°

Methyl Chloromethyl Ether NSN-KN66500 (CARN-000462122)

Ether, chloromethyl methyl	
Chlorodimethylether (Czech)	
Chloromethyl methyl ether	
CMME	Methoxychloromethane°
Dimethylchloroether	Chloromethoxymethane°
Ether, dimethyl chloro-	Methoxymethyl chloride°
Ether methylique monochlore	alpha-Chlorodimethyl ether°
(French)	
Methylchloromethyl Ether	Monochlormethyl ether°
Methane, chloromethoxy°	
Monochlorodimethyl ether°	
Alpha-Chloromethyl ether°	

3,3'-Dichlorobenzidine (& its salts) NSN-DD05250 (CARN-000115322)

Benzidine, 3, 3'-Dichloro-
DCB
4, 4'-Diamino-3, 3'-Dichlorobiphenyl
3, 3'-Dichlorobenzidin (Czech)
3, 3'-Dichlorobenzidina (Spanish)
0, 0'-Dichlorobenzidine
3, 3'-Dichlorobenzidine
Dichlorobenzidine Base
3, 3'-Dichloro-4, 4'-biphenyldiamine
3, 3'-Dichlorobiphenyl-4, 4'-diamine
3, 3'-Dichloro-4, 4'-diaminobiphenyl
C.I. 23060°
Curithane C 126°

° Listed exclusively in TOXLINE

DUF 1001985

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Bis-Chloromethyl-Ether NSN-KN15750 (CARN-000542881)

Ether, bis (chloromethyl)
Bis-CME
BCME
Chloro (chloromethoxy) methane
Chloromethylether
sym-Dichloro-dimethyl ether
sym-Dichloromethyl ether
Dimethyl-1, 1-dichloroether
Dichloromethyl ether°

beta-Naphthylamine NSN-AM21000 (CARN-000091598)

2-Naphthylamine
2-Aminonaphthalen (Czech)
2-Aminonaphthalene
beta-Nafityloamina (Polish)
C.I. 37270
Fast Scarlet Base B
beta-Nafitylamina (Italian)
2-Nafitylamine (Dutch)
2-Naphthylamine
2-Naphthylamine
beta-Nafitylamin (Czech)
beta-Nafitylamin (German)
2-Naphthylamin (German)
beta-Naphthylamine
beta-Naphthylamin (German)
NA

Benzidine NSN-DC96250 (CARN-000092875)

Benzidin (Czech)
Benzidina (Italian)
Benzydyna (Polish)
Biphenyl, 4, 4' diamino-
4, 4'-Biphenyldiamine
C.I. Azoic diazo component 112
4, 4'-Diamobiphenyl
p-Diaminodiphenyl
4, 4'-Diaminophenyl
4, 4'-Diphenylenediamine
Fast Corinth Base B
4, 4'-Bianiline°

4-Aminodiphenyl NSN-DU89250 (CARN-000092671)

4-Biphenylamine
p-Aminobiphenyl
4-Aminobiphenyl
p-Aminodiphenyl
Biphenylamine
(1, 1'-Biphenyl)-4-amine
p-Biphenylamine
p-Phenylaniline
Xenylamin (Czech)
Xenylamine
4-Phenylaniline°

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DUP 1001986

DU 050739

Ethylenimine NSN-KX50750 (CARN-000151564)

Aethylenimin (German)
Aminoethylene
Azacyclopropane
Azirdin (German)
Aziridine
Azirane
1H-Azirine, dihydro-
Dihydroazirane
Dimethyleneimine
Dimethylenimine
EI
Ethyleenimine (Dutch)
Ethyleneimine
Ethylimine
Etilenimina (Italian)

beta-Propiolactone NSN-RQ73500 (CARN-000057578)

2-Oxetanone
Betaprone
BPL
Hydracrylic acid, beta-lactone
3-Hydroxypropionic acid lactone
2-Oxetanone
Propanolide
Propiolactone
Propionic acid, 3-hydroxy-, beta-lactone
bet beta-Propionolactone
beta-Proprolactone
beta-Propionolactone°
Propanoic acid, 3-hydroxy-beta lactone°
1, 3-Propiolactone°

2-Acetylamino Fluorene NSN-AB94500 (CARN-000053963)

Acetamide, N-Fluoren-2-YL
AAF
2-AAF
2-Acetamidofluorene
2-Acetaminofluorene
2-Acetylamino-fluoren (German)
N-Acetyl-2-Aminofluorene
2-Acetylaminoofluorene
FAA
2-FAA
N-2-Fluorenylacetamide
N-Fluoren-2-ylacetamide
2-Acetylaminoofluorine°

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DUP 1001987

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DU 050740

4-Dimethylaminoazobenzene NSN-BX73500 (CARN-000060117)

Aniline, N, N-dimethyl-p-phenylazo	p-Dimethylaminoazobenzene
Azobenzene, p-dimethylamino-	4-Dimethylaminoazobenzene
Benzeneazodimethylaniline	4-(N,N-Dimethylamino) azobenzene
Brilliant Fast Oil Yellow	p-Dimethylaminoazobenzene (German)
Brilliant Fast Spirit Yellow	4-Dimethylaminoazobenzol
Brilliant Oil Yellow	4-Dimethylaminophenylazoben- zene
Buttergelb (German)	N, N-Dimethyl-p-phenylazoani- line
Butter yellow	Dimethyl yellow
Cerasine Yellow GG	DMAB
C.I. 11020	Enial yellow 2G
C.I. Solvent Yellow 2	Fast Oil Yellow B
DAB	Fat Yellow, (A), (AD,OG), (ES), (R)
Diaminobenzidine°	
N, N-Dimethyl-4-Aminoazobenzene	
p-Dimethylaminoazobenzen (Czech)	
Grasal Brilliant Yellow	
Methyl Yellow	
Oil Yellow (20), (26259), (BB), (FW), (D), (G), (2G), (GG), (GR), (II), (FEL)	
Oleal yellow 2G	
Organol yellow ADM	
Orient Oil Yellow GB	
Petrol yellow WT	
Resinol yellow GR	
Silotras yellow T2G	
Somalia yellow A	
Steer yellow JB	
Sudan yellow (GG), (GGA)	
Toyo Oil Yellow G	
Waxoline yellow ADS	
Zlut Maselena (Czech)	

N-Nitrosodimethylamine NSN-IQ05250 CARN-000062759

Dimethylamine, N-Nitroso-
N, N-Dimethylnitrosamine
Dimethylnitrosoamine
DMN
DMNA

° Listed exclusively in TOXLINE

DUP 1001988

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DU 050741

Vinyl Chloride (K096250) PCARN-00017501-

Ethylene, chloro-
Ethene, chloro-
Chloroethene
Chloroethylene
Chlorure De Vinyle (French)
Monochloroethylene°
Trovidur
Vinyl C monomer
Vinile (Chloruro Di) (Italian)
Vinylchlorid (German)
Vinyle (Chlorine De) (French)
Winylu Chlorek (Polish)
VCM

° Listed exclusively in TOXLINE

DU PONT INDUSTRIAL DEPARTMENT - DR. GEE'S GUIDELINES

Experimental Carcinogens

Toluene, -2, 4-diamine NSN-XS96250 (CARN-000095807)

2, 4-Diaminotoluen (Czech)
2, 4-Diaminotoluene
Fouramine J
Fourrine M
Fourrine 94
4 Methyl-m-phenylenediamine
Nako TMT
Pelagol Greg J
Pelagol J
Pontamine Developer TN
Renal MD
m-Toluenediamine
2, 4-Toluenediamine
m-Toluylenediamine
m-Tolylenediamine (Czech)
2, 4-Toluylenediamine
m-Tolyenediamine
2, 4-Tolylenediamine
Zoba GKE
4-Methyl-1, 3-benzenediamine°
2, 4-Diamino-1-methylbenzene°

Hexamethylphosphoramide NSN-TD08750 (CARN-000680319)

Phosphoric triamide, hexamethyl-
Hexamethylphosphoric Acid Triamide
Hexamethylphosphoric Triamide
Hexamethylphosphorotriamide
Hexamethylphosphotriamide
Hexamethylphosphoramide
HMPA
HMPT
HPT
Phosphoric tris (dimethylamide)
Phosphoryl hexamethyltriamide
Tris (dimethylamino) phosphine oxide
Tris (dimethylamino) phosphorus oxide
ENT 50882
Hempa
Hexametapol
Hexamethylphosphortriamide°
Tetramethylphosphoric triamide°
Hexamethylphosphoric acid amide°
Hexamethylorthophosphoric triamide°
Phosphoric hexamethyltriamide°
Phosphoramide, hexamethyl-°
Hexamethylphosphate triamide°

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DVI

DUP 1001990

DU 050743

Ethylene thiourea NSN-MI96250 (CARN-000096457)

2-Imidazolidinethione
N, N'-Ethylenethiourea
ETU
Imidazole-2 (3H)-thione, 4, 5-dihydro
Sodium-22 Neoprene Accelerator
Urea, 1, 3-ethylene-2-thio-
Warecure C
Thiourea, N, N'-(1, 2-ethanediy1)-°
NA 22°
2H-Imidazole-2-thione, tetrahydro-°
Imidazolidine, 2-thioxo-°
Imidazolidine-2-thione°
Imidazoline-2 (3H)-thione°
2-Imidazolidinethionine°

Dioxane NSN-JG82250 (CARN-000123911)

p-Dioxane
1, 4-Diethylene Dioxide
Diethylene Ether
Di (ethylene oxide)
Dioksan (Polish)
Diossano-1, 4 (Italian)
Dioxaan-1, 4 (Dutch)
1, 4-Dioxacyclohexane
Dioxan-1, 4 (German)
1, 4-Dioxane
Dioxane-1, 4
Dioxanne (French)
1, 4-Dioxin, tetrahydro-°
p-Dioxin, tetrahydro-
Dioxyethylene Ether
Glycol ethylene ether

Carbon tetrachloride NSN-FG49000 (CARN 000056235)

Benzinoform
ENT 4,705
Czterochlorek Wegla (Polish)
Methane tetrachloride
Methane, tetrachloro-
Necatorina
Necatorine
Perchloromethane
Tetrachloormetaan
Tetrachlormethan (German)
Tetrachloromethane
Tetrachloorkoolstof (Dutch)
Tetrachlorkohlenstoff (German)
Tetrachlorure De Carbone (French)
Tetrachlorometano (Italian)
Tetrachloruro Di Carbonio (Italian)
Carbon chloride°
Fluorocarbon 10
Tetrafinol°
Tetrachlorocarbon°
Carbon tetrachloride - (sup 33) Cl°

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DVI

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2/6/76

DUP 1001991

DU 050744

Chloroform NSN-FS91000 (CARN 000067663)

Chloroforme (French)
Cloroformio (Italian)
Formyl Trichloride
Methane Trichloride
Methane, Trichloro-
Methenyl Trichloride
Methyl Trichloride
Trichloormethaan (Dutch)
Trichloroform
Trichloromethane
Trichloromethan
Triclorometano (Italian)
Trichloromethan (Czech)

Propyleneimine NSN-CM80500 (CARN-000075558)

Aziridine, 2-methyl-
2-methylaziridine (polymer)
Propylene imine
1,2-Propyleneimine
1,2-Propylenimine
2-Methylethylenimine°
Propylenimine polymer°

N-(2-hydroxyethyl) ethyleneimine NSN-CM70000

1-Aziridineethanol
Ethanol, 2-(1-aziridinyl)°
1-(2-Hydroxyethyl) ethylenimine°
N-(2-Hydroxyethyl) aziridine°
N-(2-Hydroxyethyl) ethylenimine°
2-(Hydroxyethyl) ethylenimine°
N-(beta-Hydroxyethyl) aziridine°
(2-Hydroxyethyl) ethylenimine°
1-Azirdineethanol°
1-Aziridine ethanol°
beta-Hydroxy-1-ethylaziridine

Dimethyl Sulfate (DMS) NSN-WS82250 (CARN-000077781)

Sulfuric acid, dimethyl ester
Dimethyl monosulfate
Dimethyl sulphate
DMS (Methyl sulfate)
Methyl sulfate
Dimethylester Kyseliny Sirove (Czech)
Dimethylsulfaat (Dutch)
Dimetilsolfato
Methyle (sulfate de) (French)
Sulfate de methyle (French)

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DVI

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4/10/76
7/22/76

DUP 1001992

DU 050745

Dimethylcarbamyl Chloride (DMCC) (NSN-FD42000 (CARN-000079447))

Carbamoyl chloride, dimethyl
Carbamyl chloride, N,N-dimethyl
DDC
Carbamic chloride, dimethyl°
Dimethylcarbamoyl chloride"

Tetramethyl Thiourea

Thiocarbamide, tetramethyl

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DUP 1001993

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DVI

7/22/76

DU 050746

Suspected Carcinogens

Lead Chromate NSN-GB29750 (CARN-C07753970)

Chromic acid, lead (2 +) salt (1:1) Chrome yellow Medium (1074),
(1085), (1295), (1298)
C.I. 77600 Lemon yellow
Canary Chrome Yellow 40-2250 Pure Lemon Chrome L3GS
Chromate De Plomb (French) C.I. Pigment Green 15°
Chrome Lemon Chrome Green (VC-61), (VC-74),
(VC-76)°
Chrome yellow, (G), (GF), (LF), Norwood Green°
(5G) Paris yellow
Chrome Yellow Light (1066), (1075) Cologne Yellow
C.I. Pigment yellow 34
Dainichi Chrome Yellow G
Giallo Cromo (Italian)
Kings yellow
Lead chromate (VI)
Leipzig Yellow

Zinc Chromate NSN-GB29500 (CARN-001328672)

Chromic acid, zinc salt
Basic Zinc Chromate X2259
Buttercup Yellow
C.I. 77925
C.I. Pigment Yellow 36
Citron Yellow
C.P. Zinc yellow (X-883), (X-2127)
Primrose Yellow
Pure Zinc Chrome A
Pure Zinc Yellow
Zinc Chromate (C), (O), (T), (Z), (AM)
Zinc Chrome
Zinc Chrome (Anticorrosion)
Zinc Chrome Yellow
Zinc tetraoxychromate (76A), (780B)
Zinc yellow (1), (1425), (40-9015), (AZ-16), (AZ-18), (KSH),
(386N)
Zinc Yellows
Zinc tetraoxychromate
Zinc tetroxichromate

1,4-Dichloro-2-Butene NSN-EM49000 (CARN-000764410)

2-Butene, 1,4-Dichloro-
DCB
1,4-Dichlorobutene

° Listed exclusively in TOXLINE

