WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION

Form #3

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1987 NOV 16

NOTICE OF AGENCY APPROVAL OF A PROPOSED RULE AND FILING WITH THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE *

AGENCY: Department of Health TITLE NUMBER: 64

CITE AUTHORITY W. Va. Code §16-31-1 et seq.

AMENDMENT TO AN EXISTING RULE: YES X NO ___

IF YES, SERIES NUMBER OF RULE BEING AMENDED: 50

TITLE OF RULE BEING AMENDED: Hazardous Substances*

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: ___

TITLE OF RULE BEING PROPOSED: ___

THE ABOVE PROPOSED LEGISLATIVE RULE HAVING GONE TO A PUBLIC HEARING OR A PUBLIC COMMENT PERIOD IS HEREBY APPROVED BY THE PROMULGATING AGENCY FOR FILING WITH THE SECRETARY OF STATE AND THE LEGISLATIVE RULE MAKING REVIEW COMMITTEE FOR THEIR REVIEW.

David K. Heydinger, M.D.

David K. Heydinger, M.D.
Director

* Please note that associated with this rule there is a "Finding and Determination Related to Hazardous Substance Reporting Under State and Federal Community Right-to-Know Statutes."

FISCAL NOTE FOR PROPOSED RULES

Rule Title: Hazardous Substances, 64 CSR 50

Type of Rule: X Legislative _____ Interpretive _____ Procedural

Agency Department of Health Address 1800 Washington Street, East
Charleston, WV 25305

1. Effect of Proposed Rule	ANNUAL Increase	ANNUAL Decrease	FISCAL YEAR Current	FISCAL YEAR Next	FISCAL YEAR Thereafter
Estimated Total Cost	$	$	$ 0	$ 0	$ 0
Personal Services					
Current Expense					
Repairs and Alterations					
Equipment					
Other					

2. Explanation of above estimates.

Implementation of this amendment to the Hazardous Substances rule, 64 CSR 50, will require no expenditure of funds (see 4A).

3. Objectives of these rules:

The purpose of this amendment is to prevent duplicative reporting under state and federal laws.

4. Explanation of Overall Economic Impact of Proposed Rule.

A. Economic Impact on State Government.

This amendment will prevent the cost and effort of processing and storing duplicative information.

B. Economic Impact on Political Subdivisions; Specific Industries; Specific groups of citizens.

This amendment will prevent the cost and effort of producing, processing and storing duplicative information.

C. Economic Impact on Citizens/Public at Large.

No direct impact.

Date September 15, 1987

Signature of Agency Head or Authorized Representative

David K. Heydinger, M.D.

David K. Heydinger, M.D.
Director of Health

WEST VIRGINIA DEPARTMENT OF HEALTH

RULE ABSTRACT

Rule Title: Hazardous Substances

CSR Title & Series: 64 CSR 50 Type: Legislative

Authority and Related Code: §16-31-1 et seq.

Objective/Summary: The proposed amendment, a new Section 8, deems compliance with federal reporting requirements as meeting State reporting requirements. The purpose of this amendment is to prevent duplicative reporting under State and federal laws. (For additional information, please refer to Finding and Determination.)

For further information contact: Regulatory Development Section, telephone (304) 348-3223 or Division of Public Health Sanitation, telephone (304) 348-2967, Department of Health, 1800 Washington Street, East, Charleston, WV 25305.

[PROPOSED]

TITLE 64

WEST VIRGINIA LEGISLATIVE RULES
DEPARTMENT OF HEALTH

Hazardous Substances

Series 50

198__

For Filing with the Legislative
Rule-Making Review Committee

[PROPOSED]
WEST VIRGINIA LEGISLATIVE RULES
DEPARTMENT OF HEALTH

Hazardous Substances

64 CSR 50

INDEX

[PROPOSED]
TITLE 64
WEST VIRGINIA LEGISLATIVE RULES
DEPARTMENT OF HEALTH
Series 50

Title: Hazardous Substances

Section 1. General

1.1. Scope - This legislative rule establishes a list of hazardous substances posing health hazards and includes a definition of hazardous substances posing physical hazards, all as required by Chapter 16, Article 31, Section 4(a) of the West Virginia Code.

1.2. Authority and Related - W. Va. Code §16-31

1.3. Filing Date -

1.4. Effective Date -

1.5. Repeal of Former Rule - This rule repeals and replaces WV 64CSR50 "Hazardous Substances" filed May 6, 1986 and effective May 6, 1986.

Section 2. Application and Enforcement

2.1. Application and enforcement of this rule are vested with the director of the West Virginia department of health or his lawful designee.

Section 3. Definitions

3.1. Hazardous Substance - any element, chemical compound or mixture of elements and/or compounds which is a physical hazard as defined herein or is listed by (1) The Federal Occupational Safety and Health Administration (OSHA) in 29 Code of Federal Regulations Part 1910.1000 through 1910.1045, Subpart Z, as in effect January 1, 1985; or by (2) The American Conference of Governmental Industrial Hygienists (ACGIH) in "Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment", as in effect January 1, 1985; or by (3) The National Toxicology Program (NTP) in "Annual Report on Carcinogens" as in effect January 1, 1985.

3.2. Physical Hazard - a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water reactive.

3.3. Combustible liquid - Any liquid having a flashpoint at or above 100°F (37.8°C), but below 200°F (93.3°C), except any mixture having components with flashpoints of 200°F (93.3°C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

3.4. Compressed gas - (1) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70°F (21.1°C); or (2) A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130°F (54.4°C) regardless of the pressure at 70°F (21.1°C); or (3) A liquid having a vapor pressure exceeding 40 psi at 100°F (37.8°C) as determined by ASTM D-323-72.

3.5. Explosive - A chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

3.6. Flammable - a chemical that falls into one of the following categories:

3.6.1. Flammable Aerosol - An aerosol that, when tested by the method described in 16 Code of Federal Regulations section 1500.45, yeilds a flame projection exceeding eighteen inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening.

3.6.2. Flammable Gas - (a.) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less; or (b.) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit.

3.6.3. Flammable Liquid - Any liquid having a flashpoint below 100°F (37.8°C), except any mixture mixture having components with flashpoints of 100°F (47.8°C) or higher, the total of which make up ninety-nine percent or more of the total volume of the mixture.

3.6.4. Flammable Solid - A solid, other than a blasting agent or explosive as defined in 29 Code of Federal Regulations section 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 Code of Federal Regulations section 1500.44, it ignites and burns with a self-sustaining flame at a rate greater than one tenth of an inch per second along its major axis.

3.7. Organic Peroxide - An organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

3.8. Oxidizer - A chemical other than a blasting agent or explosive as defined in 29 Code of Federal Regulations part 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either by itself or through the release of oxygen or other gases.

3.9. Pyrophoric - A chemical that will ignite spontaneously in air at a temperature of 130°F (54.4°C) or below.

3.10. Unstable (reactive) - A chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

3.11. Water-reactive - A chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

Section 4. Hazardous Substances - Generally

4.1. The director of health has developed a comprehensive list of the names of hazardous substances posing a health hazard that contains all of the substances listed in the three publications defined in section 3.1. This list of hazardous substance names appears in section 5.

4.1.1. The list in section 5 does not include every possible synonym or common name for these hazardous substances. For several substances in section 5, the name specifically includes more than a single compound, and, in these cases, all such compounds are hazardous substances.

4.1.2. The list in section 5 also provides the substance's Chemical Abstract Service (CAS) number and the source of the publication(s) which cited the substance: (A) the Occupational Safety and Health Administration (OSHA), (B) the American Conference of Governmental Industrial Hygienists (ACGIH), or (C) the National Toxicology Program (NTP).

4.1.3. The CAS numbers in section 5 are provided only as a guide. If there exists any conflict between the name of the hazardous substance and the CAS number, the name shall prevail.

4.2. The director of health has also developed an index by CAS number as a guide to the identification of these hazardous substances. This index of hazardous substances by CAS number appears in section 6.

4.2.1. For several hazardous substances, the CAS number refers only to the principal element or compound while the name specifically includes additional compounds. Therefore, the index in section 6 cannot fully substitute for the list of hazardous substances in section 5.

4.2.2. The index of hazardous substances by CAS number in section 6 is provided only as a guide. If there exists any conflict between section 5 and section 6, section 5 shall prevail.

4.3. A list of those hazardous substances with no CAS number appears in section 7. An eight digit identifier has been assigned for use internally by the West Virginia department of health.

Section 5. Hazardous Substances List - Health Hazard

Hazardous Substance	CAS Number	ABC
Abate	3383-96-8	*
Acetaldehyde	75-07-0	**
Acetic acid	64-19-7	**
Acetic anhydride	108-24-7	**
Acetone	67-64-1	**
Acetonitrile	75-05-8	**
Acetylene dichloride see 1,2-Dichloroethylene		
2-Acetylaminofluorene	53-96-3	* *
Acetylene tetrabromide	79-27-6	**
Acetylsalicylic acid	50-78-2	*
Acrolein	107-02-8	**
Acrylamide	79-06-1	**
Acrylic acid	79-10-7	*
Acrylonitrile	107-13-1	***
Aflatoxins	1402-68-2	*
Aldrin	309-00-2	**
Allyl alcohol	107-18-6	**
Allyl chloride	107-05-1	**
Allyl glycidyl ether (AGE)	106-92-3	**
Allyl propyl disulfide	2179-59-1	**
alpha-Alumina see Aluminum oxide		
Aluminum and compounds	7429-90-5	*
Aluminum oxide	1344-28-1	*
2-Aminoanthraquinone	117-79-3	*
4-Aminobiphenyl	92-67-1	***
2-Aminoethanol see Ethanolamine		
1-Amino-2-methylanthraquinone	82-28-0	*
2-Aminopyridine	504-29-0	**
3-Amino-1,2,4-triazole	61-82-5	**
Amitrole see 3-Amino-1,2,4-triazole		
Ammonia	7664-41-7	**
Ammonium chloride	12125-02-9	*
Ammonium persulfate see Persulfate, ammonium		
Ammonium sulfamate (Ammate)	7773-06-0	**
n-Amyl acetate	628-63-7	**
sec-Amyl acetate	626-38-0	**
Aniline and homologues	62-53-3	**
Anisidine (o,p isomers)	29191-52-4	***
Antimony and compounds	7440-36-0	**
ANTU (alpha-Naphthyl thiourea)	86-88-4	**
Aramite	140-57-8	*
Arsenic and compounds	7440-38-2	***
Arsine	7784-42-1	**
Asbestos	1332-21-4	***
Asphalt	8052-42-4	*
Atrazine	1912-24-9	*
Azinphos-methyl	86-50-0	**
Barium compounds (soluble)	7440-39-3	**
Baygon	114-26-1	*
Baytex see Fenthion		
Benomyl	17804-35-2	*

(A) OSHA (B) ACGIH (C) NTP

Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Benz(a)anthracene	56-55-3	*
Benzene	71-43-2	***
Benzidine	92-87-5	***
Benzo(b)fluoranthene	205-99-2	*
Benzo(a)pyrene	50-32-8	*
p-Benzoquinone see Quinone		
Benzoyl peroxide	94-36-0	**
Benzyl chloride	100-44-7	**
Beryllium and compounds	7440-41-7	**
Biphenyl	92-52-4	**
N,N-Bis(2-chloroethyl)-2-naphthylamine	494-03-1	*
Bismuth telluride	1304-82-1	*
Borates, tetra, sodium salts	1303-96-4	*
Boron oxide	1303-86-2	**
Boron tribromide	10294-33-4	*
Boron trifluoride	7637-07-2	**
Bromacil	314-40-9	*
Bromine	7726-95-6	**
Bromine pentafluoride	7789-30-2	*
Bromochloromethane see Chlorobromomethane		
Bromoform	75-25-2	**
Butadiene (1,3-Butadiene)	106-99-0	**
Butane	106-97-8	*
Butanethiol see Butyl mercaptan		
2-Butanone see Methyl ethyl ketone		
2-Butoxyethanol	11-76-2	**
n-Butyl acetate	123-86-4	**
sec-Butyl acetate	105-46-4	**
tert-Butyl acetate	540-88-5	**
n-Butyl acrylate	141-32-2	*
n-Butyl alcohol	71-36-3	**
sec-Butyl alcohol	78-92-2	**
tert-Butyl alcohol	75-65-0	**
n-Butylamine	109-73-9	**
tert-Butyl chromate	1189-85-1	**
n-Butyl glycidyl ether	2426-08-6	**
n-Butyl lactate	138-22-7	*
n-Butyl mercaptan	109-79-5	**
o-sec-Butylphenol	89-72-5	*
p-tert-Butyltoluene	98-51-1	**
Cadmium and compounds	7440-43-9	***
Calcium cyanamide	156-62-7	*
Calcium hydroxide	1305-62-0	*
Calcium oxide	1305-78-8	**
Camphor	76-22-2	**
Caprolactam	105-60-2	*
Captafol	2425-06-1	*
Captan	133-06-2	*
Carbaryl (Sevin)	63-25-2	**
Carbofuran	1563-66-2	*
Carbon black	7440-44-0	**

(A) OSHA (B) ACGIH (C) NTP

Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Carbon dioxide	124-38-9	**
Carbon disulfide	75-15-0	**
Carbon monoxide	630-08-0	**
Carbon tetrabromide	558-13-4	*
Carbon tetrachloride	56-23-5	***
Carbonyl chloride see Phosgene		
Carbonyl fluoride	353-50-4	*
Catechol (Pyrocatechol)	120-80-9	*
Cesium hydroxide	21351-79-1	*
Chlorambucil	305-03-3	*
Chlordane	57-74-9	**
Chlorinated camphene	8001-35-2	**
Chlorinated diphenyl oxide	55720-99-5	**
Chlorine	7782-50-5	**
Chlorine dioxide	10049-04-4	**
Chlorine trifluoride	7790-91-2	**
Chloroacetaldehyde	107-20-0	**
alpha-Chloroacetophenone (Phenacyl chloride)	532-27-4	**
Chloroacetyl chloride	79-04-9	*
Chlorobenzene	108-90-7	**
o-Chlorobenzylidene malononitrile (OCBM)	2698-41-1	**
Chlorobromomethane	74-97-5	**
2-Chloro-1,3-butadiene see beta-Chloroprene		
Chlorodifluoromethane	75-45-6	*
Chlorodiphenyl (42% chlorine) (PCB)	53469-21-9	**
Chlorodiphenyl (54% chlorine) (PCB)	11097-69-1	**
1-Chloro-2,3-epoxy-propane see Epichlorhydrin		
2-Chloroethanol see Ethylene chlorohydrin		
Chloroethylene see Vinyl chloride		
Chloroform	67-66-3	***
bis(Chloromethyl)ether	542-88-1	***
1-Chloro-1-nitropropane	600-25-9	**
Chloropentafluoroethane	76-15-3	*
Chloropicrin	76-06-2	**
beta-Chloroprene	126-99-8	**
2-Chloropropionic acid	598-78-7	*
o-Chlorostyrene	1331-28-8	*
o-Chlorotoluene	95-49-8	*
2-Chloro-6-(trichloromethyl)pyridine	1929-82-4	*
Chloropyrifos	2921-88-2	*
Chromium and compounds	7440-47-3	***
Chromyl chloride	14977-61-8	*
Clopidol	2971-90-6	*
Coal dust	-------	**
Coal tar pitch volatiles	8007-45-2	**
Cobalt	7440-48-4	**
Cobalt carbonyl	10210-68-1	*
Cobalt hydrocarbonyl	16842-03-8	*
Coke oven emissions	-------	* *
Copper	7440-50-8	**
Cotton dust	-------	**

(A) OSHA (B) ACGIH (C) NTP

Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Crag herbicide see Sodium 2,4-dichlorophenoxyethyl sulfate		
p-Cresidine	120-71-8	*
Cresol (all isomers)	1319-77-3	**
m-Cresol	108-39-4	**
o-Cresol	95-48-7	**
p-Cresol	106-44-5	**
Cristobalite	14464-46-1	*
Crotonaldehyde	123-73-9	**
Crufomate	299-86-5	*
Cumene	98-82-8	**
Cupferron	135-20-6	*
Cyanamide	420-04-2	*
Cyanide, potassium	151-50-8	**
Cyanide, sodium	143-33-9	**
Cyanogen	460-19-5	*
Cyanogen chloride	506-77-4	*
Cycasin	14901-08-7	*
Cyclohexane	110-82-7	**
Cyclohexanol	108-93-0	**
Cyclohexanone	108-94-1	**
Cyclohexene	110-83-8	**
Cyclohexylamine	108-91-8	*
Cyclonite	121-82-4	*
Cyclopentadiene	542-92-7	**
Cyclopentane	287-92-3	*
Cyclophosphamide	50-18-0	*
Cyhexatin see Tricyclohexyltin hydroxide		
2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	**
DDT (Dichlorodiphenyltrichloroethane)	50-29-3	*
DDVP see Dichlorvos		
Decaborane	17702-41-9	**
Demeton	8065-48-3	**
Diacetone alcohol	123-42-2	**
2,4-Diaminoanisole sulfate	39156-41-7	*
1,2-Diaminoethane see Ethylenediamine		
2,4-Diaminotoluene	95-80-7	*
Diatomaceous earth	-------	**
Diazinon	333-41-5	*
Diazomethane	334-88-3	**
Dibenz(a,h)acridine	226-36-8	*
Dibenz(a,j)acridine	224-42-0	*
Dibenz(a,h)anthracene	53-70-3	*
7H-Dibenzo(c,g)carbazole	207-84-1	*
Dibenzo(a,h)pyrene	189-64-0	*
Dibenzo(a,i)pyrene	189-55-9	*
Diborane	19287-45-7	**
1,2-Dibromoethane see Ethylene dibromide		
Dibrom	300-76-5	*
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	* *
2-N-Dibutylaminoethanol	102-81-8	*
Dibutyl phosphate	-------	**

(A) OSHA (B) ACGIH (C) NTP

Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Dibutyl phthalate	84-74-2	**
Dichloroacetylene	7572-29-4	*
o-Dichlorobenzene	95-50-1	**
p-Dichlorobenzene	106-46-7	**
3,3'-Dichlorobenzidine, and salts	91-94-1	***
Dichlorodifluoromethane	75-71-8	**
1,3-Dichloro-5,5-dimethyl hydantoin	118-52-5	**
1,1-Dichloroethane	75-34-3	**
1,2-Dichloroethane see Ethylene Dichloride		
1,1-Dichloroethylene see Vinylidene chloride		
1,2-Dichloroethylene	540-59-0	**
Dichloroethyl ether	111-44-4	**
Dichlorofluoromethane	75-43-4	**
Dichloromethane see Methylene chloride		
1,1-Dichloro-1-nitroethane	594-72-9	**
1,2-Dichloropropane see Propylene dichloride		
1,3-Dichloropropene	542-75-6	*
2,2-Dichloropropionic acid	75-99-0	*
Dichlorotetrafluoroethane	76-14-2	**
Dichlorvos	62-73-7	**
Dicrotophos	141-66-2	*
Dicyclopentadiene	77-73-6	*
Dicyclopentadienyl iron	102-54-5	*
Dieldrin	60-57-1	**
Diepoxybutane	1464-53-5	*
Diethanolamine	111-42-2	*
Diethylamine	109-89-7	**
Diethylamino ethanol	100-37-8	**
Diethylene triamine	111-40-0	*
Diethyl ether see Ethyl ether		
Di-2-ethylhexyl phthalate	117-81-7	*
Diethyl ketone	96-22-0	*
Diethyl phthalate	84-66-2	*
Diethylstilbestrol (DES)	56-53-1	*
Difluorodibromomethane	75-61-6	**
Diglycidyl ether (DGE)	2238-07-5	**
Dihydroxybenzene see Hydroquinone		
Diisobutyl ketone	108-83-8	**
Diisopropylamine	108-18-9	*
3,3'-Dimethoxybenzidine	119-90-4	*
Dimethoxymethane see Methylal		
Dimethyl acetamide	127-19-5	**
Dimethylamine	124-40-3	**
4-Dimethylaminoazobenzene	60-11-7	* *
Dimethylaminobenzene see Xylidene		
Dimethylaniline	121-69-7	**
Dimethylbenzene see Xylene		
3,3'-Dimethylbenzidine see o-Tolidine		
Dimethyl carbamoyl chloride	79-44-7	**
Dimethyl carbamyl chloride see Dimethyl carbamoyl chloride		
Dimethyl-1,2-dibromo-2,2-dichloroethylphosphate see Dibrom		

(A) OSHA (B) ACGIH (C) NTP

Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Dimethyl formamide	68-12-2	**
2,6-Dimethyl-4-heptanone see Diisobutyl ketone		
1,1-Dimethylhydrazine	------	**
Dimethylphthalate (DMP)	131-11-3	**
Dimethyl sulfate	77-78-1	***
Dinitolmide see 3,5-Dinitrol-o-toluamide		
Dinitrobenzene (all isomers)	25154-54-5	**
m-Dinitrobenzene	99-65-0	*
o-Dinitrobenzene	528-29-0	*
p-Dinitrobenzene	100-25-4	*
Dinitro-o-cresol	2312-76-2	**
3,5-Dinitro-o-toluamide	148-01-6	*
Dinitrotoluene	25321-14-6	**
Dioxane (Diethylene dioxide)	123-91-1	***
Dioxathion	78-34-2	*
Diphenyl see Biphenyl		
Diphenylamine	122-39-4	*
Diphenylmethane diisocyanate see Methylene bisphenyl isocyanate		
Dipropylene glycol methyl ether	34590-94-8	**
Dipropyl ketone	123-19-3	*
Diquat	85-00-7	*
Direct Black 38	1937-37-7	*
Direct Blue 6	2602-46-2	*
Di-sec, octyl phthalate see Di-2-ethylhexyl phthalate		
Disulfiram	97-77-8	*
Disulfoton	298-04-4	*
2,6-Di-tert-butyl-p-cresol	128-37-0	*
Diuron	330-54-1	*
Divinyl benzene	108-57-6	*
Dyfonate	944-22-9	*
Emery	112-62-9	*
Endosulfan	115-29-7	*
Endrin	72-20-8	**
Enflurane	13838-16-9	*
Epichlorohydrin	106-89-8	**
EPN	2104-64-5	**
1,2-Epoxypropane see Propylene oxide		
2,3-Epoxy-1-propanol see Glycidol		
Ethanethiol see Ethyl mercaptan		
Ethanolamine	141-43-5	**
Ethion	563-12-2	*
2-Ethoxyethanol	110-80-5	**
2-Ethoxyethyl acetate (Cellosolve acetate)	111-15-9	**
Ethyl acetate	141-78-6	**
Ethyl acrylate	140-88-5	**
Ethyl alcohol (Ethanol)	64-17-5	**
Ethylamine	75-04-7	**
Ethyl amyl ketone	541-85-5	**
Ethyl benzene	100-41-4	**
Ethyl bromide	74-96-4	**
Ethyl butyl ketone	106-35-4	**

(A) OSHA (B) ACGIH (C) NTP

Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Ethyl chloride	75-00-3	**
Ethylene chlorohydrin	107-07-3	**
Ethylenediamine	107-15-3	**
Ethylene dibromide (EDB)	106-93-4	***
Ethylene dichloride	107-06-2	**
Ethylene glycol	107-21-1	*
Ethylene glycol dinitrate (Nitroglycerin)	628-96-6	**
Ethylene glycol monomethyl ether acetate see Methyl cellosolve acetate		
Ethylene oxide	75-21-8	**
Ethylene thiourea	96-45-7	* *
Ethylenimine	151-56-4	**
Ethyl ether	60-29-7	**
Ethyl formate	109-94-4	**
Ethylidine chloride see 1,1-Dichloroethane		
Ethylidene norbornene	16219-75-3	*
Ethyl mercaptan	75-08-1	**
N-Ethylmorpholine	100-74-3	**
Ethyl silicate	78-10-4	**
Fenamiphos	22224-92-6	*
Fensulfothion	115-90-2	*
Fenthion	55-38-9	*
Ferbam	14484-64-1	**
Ferrovanadium dust	12604-58-9	**
Fibrous glass dust	-------	*
Fluorides	-------	**
Fluorine	7782-41-4	**
Fluorotrichloromethane see Trichlorofluoromethane		
Fonofos see Dyfonate		
Formaldehyde, and solutions	50-00-0	***
Formamide	75-12-7	*
Formic acid	64-18-6	**
Furfural	98-01-1	**
Furfuryl alcohol	98-00-0	**
Gasoline	8006-61-9	*
Germanium tetrahydride	7782-65-2	*
Glass, fibrous see Fibrous glass dust		
Glutaraldehyde	111-30-8	*
Glycerol	56-81-5	*
Glycidol (2,3-Epoxy-1-propanol)	556-52-5	**
Glycol Monomethyl Ether see 2-Ethoxyethanol		
Grain dust	-------	*
Graphite, natural	-------	*
Graphite, synthetic	-------	*
Guthion see Azinphosmethyl		
Hafnium	744-58-6	**
Halothane	151-67-7	*
Heptachlor	76-44-8	**
Heptane	142-82-5	**
2-Heptanone see Methyl n-amyl ketone		
3-Heptanone see Ethyl butyl ketone		
Hexachlorobenzene	118-74-1	*

(A) OSHA (B) ACGIH (C) NTP

Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Hexachlorobutadiene	76-68-3	*
Hexachlorocyclopentadiene	77-47-4	*
Hexachloroethane	67-72-1	**
Hexachloronaphthalene	1335-87-1	**
Hexafluoroacetone	684-16-2	*
Hexamethyl phosphoramide	680-31-9	*
Hexane (and isomers)	110-54-3	**
2-Hexanone see Methyl n-butyl ketone		
Hexone see Methyl isobutyl ketone		
sec-Hexyl acetate	142-92-7	**
Hexylene glycol	107-41-5	*
Hydrazine	302-01-2	***
Hydrazine sulfate	10034-93-2	*
Hydrazobenzene	122-66-7	*
Hydrogenated terphenyls see Terphenyls		
Hydrogen bromide	10035-10-6	**
Hydrogen chloride	7647-01-1	**
Hydrogen cyanide	74-90-8	**
Hydrogen fluoride	7664-39-3	**
Hydrogen peroxide	7722-84-1	**
Hydrogen selenide	7783-07-5	**
Hydrogen sulfide	7783-06-4	**
Hydroquinone	123-31-9	**
2-Hydroxypropyl acrylate	999-61-1	*
Hydrozoic acid see Sodium azide		
Indene	95-13-6	*
Indeno(1,2,3-cd)pyrene	193-39-5	*
Indium and compounds	7440-74-6	*
Iodine	7553-56-2	**
Iodoform	75-47-8	*
Iron dextran complex	9004-66-4	*
Iron oxide	1309-37-1	**
Iron pentacarbonyl	13463-40-6	*
Iron salts	-------	*
Isoamyl acetate	123-92-2	**
Isoamyl alcohol	123-51-3	**
Isobutyl acetate	110-19-0	**
Isobutyl alcohol	78-83-1	**
Isooctyl alcohol	26952-21-6	*
Isophorone	78-59-1	**
Isophorone diisocyanate	-------	*
2-Isopropoxyethanol	109-59-1	*
Isopropyl acetate	108-21-4	**
Isopropyl alcohol	67-63-0	**
Isopropylamine	75-31-0	**
N-Isopropylaniline	643-28-7	*
Isopropyl ether	108-20-3	**
Isopropyl glycidyl ether	4016-14-2	**
Kepone (chlordecone)	143-50-0	*
Ketene	463-51-4	**
Lead, inorganic lead compounds, and lead soaps	7439-92-1	**

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Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Lead acetate	301-04-2	*
Lead arsenate	10102-48-4	*
Lead chromate	18454-12-1	*
Lead phosphate	7446-27-7	*
Lindane & isomers	58-89-9	***
Liquified petroleum gas (LPG)	-------	**
Lithium hydride	7580-67-8	**
Magnesium oxide fume	1309-48-4	**
Malathion	121-75-5	**
Maleic anhydride	108-31-6	**
Manganese (and compounds)	7439-96-5	**
Manganese cyclopentadienyl tricarbonyl	12108-13-3	*
Manganese tetroxide	-------	*
Melphalan	148-82-3	*
Mercury and compounds	7439-97-6	**
Mesityl oxide	141-79-7	**
Methacrylic acid	79-41-4	*
Methanethiol see Methyl mercaptan		
Methomyl	16752-77-5	*
Methoxychlor	72-43-5	**
2-Methoxyethanol see Methyl cellosolve		
2-Methoxyethyl acetate see Methyl cellosolve acetate		
4-Methoxyphenol	150-76-5	*
Methyl acetate	79-20-9	**
Methyl acetylene	74-99-7	**
Methyl acetylene - propadiene mixture	-------	**
Methyl acrylate	96-33-3	**
Methylacrylonitrile	126-98-7	*
Methylal (Dimethoxymethane)	109-87-5	**
Methyl alcohol (Methanol)	67-56-1	**
Methylamine	74-89-5	**
Methyl amyl alcohol see Methyl isobutyl carbinol		
Methyl n-amyl ketone	110-43-0	*
N-Methyl aniline	100-61-8	**
Methyl bromide	74-83-9	**
Methyl n-butyl ketone	591-78-6	**
Methyl cellosolve	109-86-4	**
Methyl cellosolve acetate	110-49-6	**
Methyl chloride	74-87-3	**
Methyl chloroform	71-55-6	**
Methyl chloromethyl ether	107-30-2	*
Methyl 2-cyanoacrylate	137-05-3	*
Methylcyclohexane	108-87-2	**
Methylcyclohexanol	25639-42-3	**
o-Methylcyclohexanone	583-60-8	**
Methylcyclopentadienyl manganese tricarbonyl	12108-00-2	*
Methyl demeton	8022-00-2	*
Methylene bisphenyl isocyanate (MDI)	101-68-8	**
Methylene chloride	75-09-2	**
4,4'-Methylene bis(2-chloroaniline) (MOCA)	101-14-4	**
Methylene bis(4-cyclohexylisocyanate)	5124-30-1	*

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Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
4,4'-Methylene bis(n,n-dimethyl)benzenamine	101-61-1	*
4,4-Methylene dianiline	101-77-9	*
Methyl ethyl ketone	78-93-3	**
Methyl ethyl ketone peroxide	1338-23-4	*
Methyl formate	107-31-3	**
5-Methyl-3-heptanone see Ethyl amyl ketone		
Methyl hydrazine	60-34-4	**
Methyl iodide	74-88-4	**
Methyl isoamyl ketone	110-12-3	*
Methyl isobutyl carbinol	105-30-6	**
Methyl isobutyl ketone	108-10-1	**
Methyl isocyanate	624-83-9	**
Methyl isopropyl ketone	563-80-4	*
Methyl mercaptan	74-93-1	**
Methyl methacrylate	80-62-6	**
Methyl parathion	298-00-0	*
Methyl propyl ketone	107-87-9	**
Methyl silicate	681-84-5	*
alpha-Methyl styrene	98-83-9	**
Metribuzin	21087-64-9	*
Mica	12001-26-2	**
Michler's ketone	90-94-8	*
Mineral wool fiber	-------	*
Mirex	2385-85-5	*
Molybdenum and compounds	7439-98-7	**
Monocrotophos	6923-22-4	*
Morpholine	110-91-8	**
Mustard gas	505-60-2	*
Naled see Dibrom		
Naphtha, coal tar	-------	**
Naphthalene	91-20-3	**
alpha-Naphthylamine	134-32-7	*
2-Naphthylamine (beta-Naphthylamine)	91-59-8	***
Nickel and compounds	7440-02-0	***
Nickel carbonyl	13463-39-3	***
Nicotine	54-11-5	**
Nitrapyrin see 2-Chloro-6-(trichloromethyl)pyridine		
Nitric acid	7697-37-2	**
Nitric oxide	10102-43-9	**
Nitrilotriacetic acid	139-13-9	*
p-Nitroaniline	100-01-6	**
5-Nitro-o-anisidine	99-59-2	*
Nitrobenzene	98-95-3	**
p-Nitrochlorobenzene	100-00-5	**
4-Nitrodiphenyl (4-Nitrobiphenyl)	92-93-3	**
Nitroethane	79-24-3	**
Nitrofen	1836-75-5	*
Nitrogen dioxide	10102-44-0	**
Nitrogen trifluoride	7783-54-2	**
Nitroglycerin	55-63-0	**
Nitromethane	75-52-5	**

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Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
1-Nitropropane	108-03-2	**
2-Nitropropane	79-46-9	**
N-Nitrosodi-n-butylamine	924-16-3	*
N-Nitrosodiethanolamine	1116-54-7	*
N-Nitrosodiethylamine	55-18-5	*
N-Nitrosodimethylamine	62-75-9	***
p-Nitrosodiphenylamine	156-10-5	*
N-Nitrosodi-n-propylamine	621-64-7	*
N-Nitroso-n-ethylurea	759-73-9	*
N-Nitroso-n-methylurea	684-93-5	*
N-Nitrosomethylvinylamine	4549-40-0	*
N-Nitrosomorpholine	59-89-2	*
N-Nitrosonornicotine	16543-55-8	*
N-Nitrosopiperidine	100-75-4	*
N-Nitrosopyrrolidine	930-55-2	*
N-Nitrososarcosine	13256-22-9	*
Nitrotoluene (all isomers)	1321-12-6	**
m-Nitrotoluene	99-08-1	**
o-Nitrotoluene	88-72-2	**
p-Nitrotoluene	99-99-0	**
Nitrotrichloromethane see Chloropicrin		
Nonane	111-84-2	*
Octachloronaphthalene	2234-13-1	**
Octane	111-65-9	**
Oil mist, mineral	-------	**
Osmium tetroxide	20816-12-0	**
Oxalic acid	144-62-7	**
Oxygen difluoride	7783-41-7	**
Oxymetholone	434-07-1	*
Ozone	10028-15-6	**
Paraffin wax fume	8002-74-2	*
Paraquat	1910-42-5	**
Parathion	56-38-2	**
Particulate polycyclic aromatic hyrocarbons see Coal tar pitch volatiles		
Pentaborane	19624-22-7	**
Pentachloronaphthalene	1321-64-8	**
Pentachlorophenol	87-86-5	**
Pentaerythritol	115-77-5	*
Pentane	109-66-0	**
2-Pentanone see Methyl propyl ketone		
Perchloroethylene	127-18-4	*
Perchloromethyl mercaptan	594-42-3	**
Perchloryl fluoride	7616-94-6	**
Perlite	-------	*
Persulfate, ammonium	7727-54-0	*
Persulfate, potassium	7727-21-1	*
Persulfate, sodium	7775-27-1	*
Petroleum naphtha	8030-30-6	**
Phenacetin	62-44-2	*
Phenazopyridine	94-78-0	*
Phenazopyridine hydrochloride	136-40-3	*

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Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Phenol	108-95-2	**
Phenothiazine	92-84-2	*
p-Phenylene diamine	106-50-3	**
Phenyl ether	101-84-8	**
Phenyl ether-biphenyl mixture	-------	**
Phenylethylene see Styrene (monomer)		
Phenyl glycidyl ether (PGE)	122-60-1	**
Phenyl hydrazine	100-63-0	**
Phenyl mercaptan	108-98-5	*
N-Phenyl-beta-naphthylamine	135-88-6	*
Phenylphosphine	638-21-1	*
Phenytoin	57-41-0	*
Phenytoin, sodium salt	630-93-3	*
Phorate	298-02-2	*
Phosdrin (Mevinphos)	7786-34-7	**
Phosgene	75-44-5	**
Phosphine	7803-51-2	**
Phosphoric acid	7664-38-2	**
Phosphorus, yellow	7723-14-0	**
Phosphorus oxychloride	10025-87-3	*
Phosphorus pentachloride	10026-13-8	**
Phosphorus pentasulfide	1314-80-3	**
Phosphorus trichloride	7719-12-2	**
Phthalic anhydride	85-44-9	**
m-Phthalodinitrile	626-17-5	*
Picloram	1918-02-1	*
Picric acid	88-89-1	**
Pindone see Pival		
Piperazine dihydrochloride	142-64-3	*
Pival (2-Pivalyl-1,3-indandione)	83-26-1	**
Platinum, soluble salts	7440-06-4	**
Polybrominated biphenyls (PBB's)	59536-65-1	*
Polychlorinated biphenyls (PCB's) see Chlorodiphenyls		
Polycyclic aromatic hydrocarbons see Coal tar pitch volatiles		
Polytetrafluoroethylene decomposition products	-------	*
Portland cement mixture	-------	**
Potassium hydroxide	1310-58-3	*
Potassium persulfate see Persulfate, potassium		
Procarbazine	671-16-9	*
Procarbazine hydrochloride	366-70-1	*
Propane	74-98-6	*
Propane sultone	1120-71-4	*
Propargyl alcohol	107-19-7	*
beta-Propiolactone	57-57-8	***
Propionic acid	79-09-4	*
Propoxur see Bagon		
n-Propyl acetate	109-60-4	**
n-Propyl alcohol	71-23-8	**
Propylene dichloride	78-87-5	**
Propylene glycol dinitrate	6423-43-4	*
Propylene glycol monomethyl ether	107-98-2	*

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Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Propylene imine	75-55-8	**
Propylene oxide	75-56-9	**
n-Propyl nitrate	627-13-4	**
Propyne see Methylacetylene		
Pyrethrum	8003-34-7	**
Pyridine	110-86-1	**
Quartz see Silica (quartz)		
Quinone	106-51-4	**
RDX see Cyclonite		
Reserpine	50-55-5	*
Resorcinol	108-46-3	*
Rhodium and compounds	7440-16-6	**
Ronnel	299-84-3	**
Rotenone	83-79-4	**
Rubber solvent	-------	*
Saccharin	81-07-2	*
Safrole	94-59-7	*
Selenium and compounds	7782-49-2	**
Selenium hexafluoride	7783-79-1	**
Selenium sulfide	7446-34-6	*
Sesone see Sodium2,4-dichlorophenoxyethyl sulfate		
Silane see Silicon tetrahydride		
Silica, amorphous	7631-86-9	**
Silica, amorphous - fused	60676-86-0	*
Silica, crystalline - cristobalite	14464-46-1	*
Silica, crystalline - quartz	14808-60-7	*
Silica, crystalline - tridymite	15468-32-3	*
Silica, crystalline - tripoli	1317-95-1	*
Silicon	7440-21-2	*
Silicon carbide	409-21-2	*
Silicon tetrahydride	7803-62-5	*
Silver and compounds	7440-22-4	**
Soapstone	-------	**
Sodium azide	26628-22-8	*
Sodium bisulfite	7631-90-5	*
Sodium 2,4-dichlorophenoxyethyl sulfate	136-78-7	*
Sodium fluoroacetate	62-74-8	**
Sodium hydroxide	1310-73-2	**
Sodium metabisulfite	7681-57-4	*
Sodium persulfate see Persulfate, sodium		
Stibine	7803-52-3	**
Stoddard solvent	8052-41-3	**
Streptozotocin	18883-66-4	*
Strychnine	57-24-9	**
Styrene (monomer)	100-42-5	**
Subtilisin (Bacillus subtilis BPN)	9014-01-1	*
Subtilisin (Bacillus subtilis Carlsberg)	1395-21-7	*
Sulfallate	95-06-7	*
Sulfur dioxide	7446-09-5	**
Sulfur hexafluoride	2551-62-4	**
Sulfuric acid	7664-93-9	**

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Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Sulfur monochloride	10025-67-9	**
Sulfur pentafluoride	5714-22-7	**
Sulfur tetrafluoride	7783-60-0	*
Sulfuryl fluoride	2699-79-8	**
Sulprofos	35400-43-2	*
Systox see Demeton		
2,4,5 - T (2,4,5-Trichlorophenoxyacetic acid)	93-76-5	**
Talc	-------	**
Tantalum	7440-25-7	**
TEDP	3689-24-5	**
Tellurium and compounds	13494-80-9	**
Tellurium hexafluoride	7783-80-4	**
Temephos see Abate		
TEPP	107-49-3	**
Terphenyls	92-94-4	**
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	*
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	**
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	**
1,1,2,2-Tetrachloroethane	79-34-5	**
Tetrachloroethylene see Perchloroethylene		
Tetrachloromethane see Carbon tetrachloride		
Tetrachloronaphthalene	1335-88-2	**
Tetraethyl lead	78-00-2	**
Tetrahydrofuran	109-99-9	**
Tetramethyl lead	75-74-1	**
Tetramethyl succinonitrile	3333-52-6	**
Tetranitromethane	509-14-8	**
Tetrasodium pyrophosphate	7722-88-5	*
Tetryl	479-45-8	**
Thallium and compounds	7440-28-0	**
4,4-Thio-bis(6-tert-butyl-m-cresol)	96-69-5	*
Thioacetamide	62-55-5	*
Thioglycolic acid	68-11-1	*
Thionyl chloride	7719-09-7	*
Thiourea	62-56-6	*
Thiram	137-26-8	**
Thorium dioxide	1314-20-1	*
Tin and compounds	7440-31-5	**
Titanium dioxide	13463-67-7	**
Toluene	108-88-3	**
Toluene-2,4-diisocyanate (TDI)	584-84-9	**
o-Tolidine	119-93-7	*
o-Toluidine	95-53-4	***
o-Toluidine hydrochloride	636-21-5	*
Toxaphene see Chlorinated camphene		
Tributyl phosphate	126-73-8	**
Trichloroacetic acid	76-03-9	*
1,2,4-Trichlorobenzene	120-82-1	*
1,1,1-Trichloroethane see Methyl chloroform		
1,1,2-Trichloroethane	79-00-5	**
Trichloroethylene	79-01-6	**

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Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Trichlorofluoromethane	75-69-4	**
Trichloromethane see Chloroform		
Trichloronaphthalene	1321-65-9	**
Trichloronitromethane see Chloropicrin		
2,4,6-Trichlorophenol	88-06-2	*
1,2,3-Trichloropropane	96-18-4	**
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	**
Tricyclohexyltin hydroxide	13121-70-5	*
Tridymite	15468-32-3	*
Triethylamine	121-44-8	**
Trifluorobromomethane	75-63-8	**
Trimellitic anhydride	552-30-7	*
Trimethylamine	75-50-3	*
Trimethyl benzene	25551-13-7	*
Trimethyl phosphite	121-45-9	*
2,4,6-Trinitrophenol see Picric acid		
2,4,6-Trinitrophenyl-methylnitramine see Tetryl		
2,4,6-Trinitrotoluene	118-96-7	**
Triorthocresyl phosphate	78-30-8	**
Triphenyl amine	603-34-9	*
Triphenyl phosphate	115-86-6	**
Tripoli	1317-95-9	*
Tris(1-aziridinyl)phosphine sulfide	52-24-4	*
Tris(2,3-dibromopropyl)phosphate	126-72-7	*
Tungsten and compounds	7440-33-7	*
Turpentine	8006-64-2	**
Uranium and compounds	7440-61-1	**
Urethane	51-79-6	*
Valeraldehyde	110-62-3	*
Vanadium	7440-62-2	*
Vanadium pentoxide, dust and fume	1314-62-1	*
Vinyl acetate	108-05-4	*
Vinyl benzene see Styrene (monomer)		
Vinyl bromide	593-60-2	*
Vinyl chloride	75-01-4	**
Vinyl cyanide see Acrylonitrile		
Vinyl cyclohexene dioxide	106-87-6	*
Vinylidene chloride	75-35-4	*
Vinyl toluene	25013-15-4	**
VM & P naphtha see Petroleum naphtha		
Warfarin	81-81-2	**
Wood dust	-------	*
Xylene (all isomers)	1330-20-7	**
m-Xylene	108-38-3	**
o-Xylene	95-47-6	**
p-Xylene	106-42-3	**
m-Xylene-alpha,alpha-diamine	1477-55-0	*
Xylidine	1300-73-8	**
Yttrium	7440-65-5	**
Zinc chloride fume	7646-85-7	**
Zinc chromates	13530-65-9	*

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Section 5. Hazardous Substances List - Health Hazard (Cont'd.)

Hazardous Substance	CAS Number	ABC
Zinc oxide fume	1314-13-2	**
Zinc stearate	557-05-1	*
Zirconium and compounds	7440-67-7	**

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Section 6. Index by CAS Number

CAS Number	Hazardous Substance
11-76-2	2-Butoxyethanol
50-00-0	Formaldehyde, and solutions
50-18-0	Cyclophosphamide
50-29-3	DDT (Dichlorodiphenyltrichloroethane)
50-32-8	Benzo(a)pyrene
50-55-5	Reserpine
50-78-2	Acetylsalicylic acid
51-79-6	Urethane
52-24-4	Tris(1-aziridinyl)phosphine sulfide
53-70-3	Dibenz(a,h)anthracene
53-96-3	2-Acetylaminofluorene
54-11-5	Nicotine
55-18-5	N-Nitrosodiethylamine
55-38-9	Fenthion
55-63-0	Nitroglycerin
56-23-5	Carbon tetrachloride
56-38-2	Parathion
56-53-1	Diethylstilbestrol (DES)
56-55-3	Benz(a)anthracene
56-81-5	Glycerol
57-14-7	1,1-Dimethylhydrazine
57-24-9	Strychnine
57-41-0	Phenytoin
57-57-8	beta-Propiolactone
57-74-9	Chlordane
58-89-9	Lindane & isomers
59-89-2	N-Nitrosomorpholine
60-11-7	4-Dimethylaminoazobenzene
60-29-7	Ethyl ether
60-34-4	Methyl hydrazine
60-57-1	Dieldrin
61-82-5	3-Amino-1,2,4-triazole
62-44-2	Phenacetin
62-53-3	Aniline and homologues
62-55-5	Thioacetamide
62-56-6	Thiourea
62-73-7	Dichlorvos
62-74-8	Sodium fluoroacetate
62-75-9	N-Nitrosodimethylamine
63-25-2	Carbaryl (Sevin)
64-17-5	Ethyl alcohol (Ethanol)
64-18-6	Formic acid
64-19-7	Acetic acid
67-56-1	Methyl alcohol (Methanol)
67-63-0	Isopropyl alcohol
67-64-1	Acetone
67-66-3	Chloroform
67-72-1	Hexachloroethane
68-11-1	Thioglycolic acid
68-12-2	Dimethyl formamide
71-23-8	n-Propyl alcohol
71-36-3	n-Butyl alcohol

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
71-43-2	Benzene
71-55-6	Methyl chloroform
72-20-8	Endrin
72-43-5	Methoxychlor
74-83-9	Methyl bromide
74-87-3	Methyl chloride
74-88-4	Methyl iodide
74-89-5	Methylamine
74-90-8	Hydrogen cyanide
74-93-1	Methyl mercaptan
74-96-4	Ethyl bromide
74-97-5	Chlorobromomethane
74-98-6	Propane
74-99-7	Methyl acetylene
75-00-3	Ethyl chloride
75-01-4	Vinyl chloride
75-04-7	Ethylamine
75-05-8	Acetonitrile
75-07-0	Acetaldehyde
75-08-1	Ethyl mercaptan
75-09-2	Methylene chloride
75-12-7	Formamide
75-15-0	Carbon disulfide
75-21-8	Ethylene oxide
75-25-2	Bromoform
75-31-0	Isopropylamine
75-34-3	1,1-Dichloroethane
75-35-4	Vinylidene chloride
75-43-4	Dichlorofluoromethane
75-44-5	Phosgene
75-45-6	Chlorodifluoromethane
75-47-8	Iodoform
75-50-3	Trimethylamine
75-52-5	Nitromethane
75-55-8	Propylene imine
75-56-9	Propylene oxide
75-61-6	Difluorodibromomethane
75-63-8	Trifluorobromomethane
75-65-0	tert-Butyl alcohol
75-69-4	Trichlorofluoromethane
75-71-8	Dichlorodifluoromethane
75-74-1	Tetramethyl lead
75-99-0	2,2-Dichloropropionic acid
76-03-9	Trichloroacetic acid
76-06-2	Chloropicrin
76-11-9	1,1,1,2-Tetrachloro-2,2-difluoroethane
76-12-0	1,1,2,2-Tetrachloro-1,2-difluoroethane
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane
76-14-2	Dichlorotetrafluoroethane
76-15-3	Chloropentafluoroethane
76-22-2	Camphor
76-44-8	Heptachlor

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
76-68-3	Hexachlorobutadiene
77-47-4	Hexachlorocyclopentadiene
77-73-6	Dicyclopentadiene
77-78-1	Dimethyl sulfate
78-00-2	Tetraethyl lead
78-10-4	Ethyl silicate
78-30-8	Triorthocresyl phosphate
78-34-2	Dioxathion
78-59-1	Isophorone
78-83-1	Isobutyl alcohol
78-87-5	Propylene dichloride
78-92-2	sec-Butyl alcohol
78-93-3	Methyl ethyl ketone
79-00-5	1,1,2-Trichloroethane
79-01-6	Trichloroethylene
79-04-9	Chloroacetyl chloride
79-06-1	Acrylamide
79-09-4	Propionic acid
79-10-7	Acrylic acid
79-20-9	Methyl acetate
79-24-3	Nitroethane
79-27-6	Acetylene tetrabromide
79-34-5	1,1,2,2-Tetrachloroethane
79-41-4	Methacrylic acid
79-44-0	Dimethyl carbamoyl chloride
79-46-9	2-Nitropropane
80-62-6	Methyl methacrylate
81-07-2	Saccharin
81-81-2	Warfarin
82-28-0	1-Amino-2-methylanthraquinone
83-26-1	Pival (2-Pivalyl-1,3-indandione)
83-79-4	Rotenone
84-66-2	Diethyl phthalate
84-74-2	Dibutyl phthalate
85-00-7	Diquat
85-44-9	Phthalic anhydride
86-50-0	Azinphos-methyl
86-88-4	ANTU (alpha-Naphthyl thiourea)
87-86-5	Pentachlorophenol
88-06-2	2,4,6-Trichlorophenol
88-72-2	o-Nitrotoluene
88-89-1	Picric acid
89-72-5	o-sec-Butylphenol
90-94-8	Michler's ketone
91-20-3	Naphthalene
91-59-8	2-Naphthylamine (beta-Naphthylamine)
91-94-1	3,3'-Dichlorobenzidine, and salts
92-52-4	Biphenyl
92-67-1	4-Aminobiphenyl
92-84-2	Phenothiazine
92-87-5	Benzidine
92-93-3	4-Nitrodiphenyl

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
92-94-4	Terphenyls
93-76-5	2,4,5 - T (2,4,5-Trichlorophenoxyacetic acid)
94-36-0	Benzoyl peroxide
94-59-7	Safrole
94-75-7	2,4-D (2,4-Dichlorophenoxyacetic acid)
94-78-0	Phenazopyridine
95-06-7	Sulfallate
95-13-6	Indene
95-47-6	o-Xylene
95-48-7	o-Cresol
95-49-8	o-Chlorotoluene
95-50-1	o-Dichlorobenzene
95-53-4	o-Toluidine
95-80-7	2,4-Diaminotoluene
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)
96-18-4	1,2,3-Trichloropropane
96-22-0	Diethyl ketone
96-33-3	Methyl acrylate
96-45-7	Ethylene thiourea
96-69-5	4,4-Thio-bis(6-tert-butyl-m-cresol)
97-77-8	Disulfiram
98-00-0	Furfuryl alcohol
98-01-1	Furfural
98-51-1	p-tert-Butyltoluene
98-82-8	Cumene
98-83-9	alpha-Methyl styrene
98-95-3	Nitrobenzene
99-08-1	m-Nitrotoluene
99-59-2	5-Nitro-o-anisidine
99-65-0	m-Dinitrobenzene
99-99-0	p-Nitrotoluene
100-00-5	p-Nitrochlorobenzene
100-01-6	p-Nitroaniline
100-25-4	p-Dinitrobenzene
100-37-8	Diethylamino ethanol
100-41-4	Ethyl benzene
100-42-5	Styrene (monomer)
100-44-7	Benzyl chloride
100-61-8	N-Methyl aniline
100-63-0	Phenyl hydrazine
100-74-3	N-Ethylmorpholine
100-75-4	N-Nitrosopiperidine
101-14-4	4,4'-Methylene bis(2-chloroaniline)
101-61-1	4,4'-Methylene bis(n,n-dimethyl)benzenamine
101-68-8	Methylene bisphenyl isocyanate (MDI)
101-77-9	4,4-Methylene dianiline
101-84-8	Phenyl ether
102-54-5	Dicyclopentadienyl iron
102-81-8	2-N-Dibutylaminoethanol
105-30-6	Methyl isobutyl carbinol
105-46-4	sec-Butyl acetate
105-60-2	Caprolactam

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
106-35-4	Ethyl butyl ketone
106-42-3	p-Xylene
106-44-5	p-Cresol
106-46-7	p-Dichlorobenzene
106-50-3	p-Phenylene diamine
106-51-4	Quinone
106-87-6	Vinyl cyclohexene dioxide
106-89-8	Epichlorhydrin
106-92-3	Allyl glycidyl ether
106-93-4	Ethylene dibromide (EDB)
106-97-8	Butane
106-99-0	Butadiene (1,3-Butadiene)
107-02-8	Acrolein
107-05-1	Allyl chloride
107-06-2	Ethylene dichloride
107-07-3	Ethylene chlorohydrin
107-13-1	Acrylonitrile
107-15-3	Ethylenediamine
107-18-6	Allyl alcohol
107-19-7	Propargyl alcohol
107-20-0	Chloroacetaldehyde
107-21-1	Ethylene glycol
107-30-2	Methyl chloromethyl ether
107-31-3	Methyl formate
107-41-5	Hexylene glycol
107-49-3	TEPP
107-87-9	Methyl propyl ketone
107-98-2	Propylene glycol monomethyl ether
108-03-2	1-Nitropropane
108-05-4	Vinyl acetate
108-10-1	Methyl isobutyl ketone
108-18-9	Diisopropylamnie
108-20-3	Isopropyl ether
108-21-4	Isopropyl acetate
108-24-7	Acetic anhydride
108-31-6	Maleic anhydride
108-38-3	m-Xylene
108-39-4	m-Cresol
108-46-3	Resorcinol
108-57-6	Divinyl benzene
108-83-8	Diisobutyl ketone
108-87-2	Methylcyclohexane
108-88-3	Toluene
108-90-7	Chlorobenzene
108-91-8	Cyclohexylamine
108-93-0	Cyclohexanol
108-94-1	Cyclohexanone
108-95-2	Phenol
108-98-5	Phenyl mercaptan
109-59-1	2-Isopropoxyethanol
109-60-4	n-Propyl acetate
109-66-0	Pentane

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
109-73-9	n-Butylamine
109-79-5	n-Butyl mercaptan
109-86-4	Methyl cellosolve
109-87-5	Methylal (Dimethoxymethane)
109-89-7	Diethylamine
109-94-4	Ethyl formate
109-99-9	Tetrahydrofuran
110-12-3	Methyl isoamyl ketone
110-19-0	Isobutyl acetate
110-43-0	Methyl n-amyl ketone
110-49-6	Methyl cellosolve acetate
110-54-3	Hexane (and isomers)
110-62-3	Valeraldehyde
110-80-5	2-Ethoxyethanol
110-82-7	Cyclohexane
110-83-8	Cyclohexene
110-86-1	Pyridine
110-91-8	Morpholine
111-15-9	2-Ethoxyethyl acetate (Cellosolve acetate)
111-30-8	Glutaraldehyde
111-40-0	Diethylene triamine
111-42-2	Diethanolamine
111-44-4	Dichloroethyl ether
111-65-9	Octane
111-84-2	Nonane
112-62-9	Emery
114-26-1	Baygon
115-29-7	Endosulfan
115-77-5	Pentaerythritol
115-86-6	Triphenyl phosphate
115-90-2	Fensulfothion
117-79-3	2-Aminoanthraquinone
117-81-7	Di-2-ethylhexyl phthalate
118-52-5	1,3-Dichloro-5,5-dimethylhydantoin
118-74-1	Hexachlorobenzene
118-96-7	2,4,6-Trinitrotoluene
119-90-4	3,3'-Dimethoxybenzidine
119-93-7	o-Tolidine
120-71-8	p-Cresidine
120-80-9	Catechol (Pyrocatechol)
120-82-1	1,2,4-Trichlorobenzene
121-44-8	Triethylamine
121-45-9	Trimethyl phosphite
121-69-7	Dimethylaniline
121-75-5	Malathion
121-82-4	Cyclonite
122-39-4	Diphenylamine
122-60-1	Phenyl glycidyl ether (PGE)
122-66-7	Hydrazobenzene
123-19-3	Dipropyl ketone
123-31-9	Hydroquinone
123-42-2	Diacetone alcohol

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
123-51-3	Isoamyl alcohol
123-73-9	Crotonaldehyde
123-86-4	n-Butyl acetate
123-91-1	Dioxane (Diethylene dioxide)
123-92-2	Isoamyl acetate
124-38-9	Carbon dioxide
124-40-3	Dimethylamine
126-72-7	Tris(2,3-dibromopropyl)phosphate
126-73-8	Tributyl phosphate
126-98-7	Methylacrylonitrile
126-99-8	beta-Chloroprene
127-18-4	Perchloroethylene
127-19-5	Dimethyl acetamide
128-37-0	2,6-Di-tert-butyl-p-cresol
131-11-3	Dimethylphthalate (DMP)
133-06-2	Captan
134-32-7	alpha-Naphthylamine
135-20-6	Cupferron
135-88-6	N-Phenyl-beta-naphthylamine
136-40-3	Phenazopyridine hydrochloride
136-78-7	Sodium 2,4-dichlorophenoxyethyl sulfate
137-05-3	Methyl 2-cyanoacrylate
137-26-8	Thiram
138-22-7	n-Butyl lactate
139-13-9	Nitrilotriacetic acid
140-57-8	Aramite
140-88-5	Ethyl acrylate
141-32-2	n-Butyl acrylate
141-43-5	Ethanolamine
141-66-2	Dicrotophos
141-78-6	Ethyl acetate
141-79-7	Mesityl oxide
142-64-3	Piperazine dihydrochloride
142-82-5	Heptane
142-92-7	sec-Hexyl acetate
143-33-9	Cyanide, sodium
143-50-0	Kepone (chlordecone)
144-62-7	Oxalic acid
148-01-6	3,5-Dinitro-o-toluamide
148-82-3	Melphalan
150-76-5	4-Methoxyphenol
151-50-8	Cyanide, potassium
151-56-4	Ethylenimine
151-67-7	Halothane
156-10-5	p-Nitrosodiphenylamine
156-62-7	Calcium cyanamide
189-55-9	Dibenzo(a,i)pyrene
189-64-0	Dibenzo(a,h)pyrene
193-39-5	Indeno(1,2,3-cd)pyrene
205-99-2	Benzo(b)fluoranthene
207-84-1	7H-Dibenzo(c,g)carbazole
224-42-0	Dibenz(a,j)acridine

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
226-36-8	Dibenz(a,h)acridine
287-92-3	Cyclopentane
298-00-0	Methyl parathion
298-02-2	Phorate
298-04-4	Disulfoton
299-84-3	Ronnel
299-86-5	Crufomate
300-76-5	Dibrom
301-04-2	Lead acetate
302-01-2	Hydrazine
305-03-3	Chlorambucil
309-00-2	Aldrin
314-40-9	Bromacil
330-54-1	Diuron
333-41-5	Diazinon
334-88-3	Diazomethane
353-50-4	Carbonyl fluoride
366-70-1	Procarbazine hydrochloride
409-21-2	Silicon carbide
420-04-2	Cyanamide
434-07-1	Oxymetholone
460-19-5	Cyanogen
463-51-4	Ketene
479-45-8	Tetryl
494-03-1	N,N-Bis(2-chloroethyl)-2-naphthylamine
504-29-0	2-Aminopyridine
505-60-2	Mustard gas
506-77-4	Cyanogen chloride
509-14-8	Tetranitromethane
528-29-0	o-Dinitrobenzene
532-27-4	alpha-Chloroacetophenone (Phenacylchloride)
540-59-0	1,2-Dichloroethylene
540-88-5	tert-Butyl acetate
541-85-5	Ethyl amyl ketone
542-75-6	1,3-Dichloropropene
542-88-1	bis(Chloromethyl)ether
542-92-7	Cyclopentadiene
552-30-7	Trimellitic anhydride
556-52-5	Glycidol (2,3-Epoxy-1-propanol)
557-05-1	Zinc stearate
558-13-4	Carbon tetrabromide
563-12-2	Ethion
563-80-4	Methyl isopropyl ketone
583-60-8	o-Methylcyclohexanone
584-84-9	Toluene-2,4-diisocyanate (TDI)
591-78-6	Methyl n-butyl ketone
593-60-2	Vinyl bromide
594-42-3	Perchloromethyl mercaptan
594-72-9	1,1-Dichloro-1-nitroethane
598-78-7	2-Chloropropionic acid
600-25-9	1-Chloro-1-nitropropane
603-34-9	Triphenyl amine

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
621-64-7	N-Nitrosodi-n-propylamine
624-83-9	Methyl isocyanate
626-17-5	m-Phthalodinitrile
626-38-0	sec-Amyl acetate
627-13-4	n-Propyl nitrate
628-63-7	n-Amyl acetate
628-96-6	Ethylene glycol dinitrate (Nitroglycerin)
630-08-0	Carbon monoxide
630-93-3	Phenytoin, sodium salt
636-21-5	o-Toluidine hydrochloride
638-21-1	Phenylphosphine
643-28-7	N-Isopropylaniline
671-16-9	Procarbazine
680-31-9	Hexamethyl phosphoramide
681-84-5	Methyl silicate
684-16-2	Hexafluoroacetone
684-93-5	N-Nitroso-n-methylurea
744-58-6	Hafnium
759-73-9	N-Nitroso-n-ethylurea
924-16-3	N-Nitrosodi-n-butylamine
930-55-2	N-Nitrosopyrrolidine
944-22-9	Dyfonate
999-61-1	2-Hydroxypropyl acrylate
1116-54-7	N-Nitrosodiethanolamine
1120-71-4	Propane sultone
1189-85-1	tert-Butyl chromate
1300-73-8	Xylidine
1303-86-2	Boron oxide
1303-96-4	Borates, tetra, sodium salts
1304-82-1	Bismuth telluride
1305-62-0	Calcium hydroxide
1305-78-8	Calcium oxide
1309-37-1	Iron oxide
1309-48-4	Magnesium oxide fume
1310-58-3	Potassium hydroxide
1310-73-2	Sodium hydroxide
1314-13-2	Zinc oxide fume
1314-20-1	Thorium dioxide
1314-62-1	Vanadium pentoxide, dust and fume
1314-80-3	Phosphorus pentasulfide
1317-95-9	Tripoli
1319-77-3	Cresol (all isomers)
1321-12-6	Nitrotoluene (all isomers)
1321-64-8	Pentachloronaphthalene
1321-65-9	Trichloronaphthalene
1330-20-7	Xylene (all isomers)
1331-28-8	o-Chlorostyrene
1332-21-4	Asbestos
1335-87-1	Hexachloronaphthalene
1335-88-2	Tetrachloronaphthalene
1338-23-4	Methyl ethyl ketone peroxide
1344-28-1	Aluminum oxide

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
1395-21-7	Subtilisin (Bacillus subtilis BPN)
1402-68-2	Aflatoxins
1464-53-5	Diepoxybutane
1477-55-0	m-Xylene-alpha,alpha-diamine
1563-66-2	Carbofuran
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin
1836-75-5	Nitrofen
1910-42-5	Paraquat
1912-24-9	Atrazine
1918-02-1	Picloram
1929-82-4	2-Chloro-6-(trichloromethyl)pyridine
1937-37-7	Direct Black 38
2104-64-5	EPN
2179-59-1	Allyl propyl disulfide
2234-13-1	Octachloronaphthalene
2238-07-5	Diglycidyl ether (DGE)
2312-76-2	Dinitro-o-cresol
2385-85-5	Mirex
2425-06-1	Captafol
2426-08-6	n-Butyl glycidyl ether
2551-62-4	Sulfur hexafluoride
2602-46-2	Direct Blue 6
2698-41-1	o-Chlorobenzylidene malononitrile
2699-79-8	Sulfuryl fluoride
2921-88-2	Chloropyrifos
2971-90-6	Clopidol
3333-52-6	Tetramethyl succinonitrile
3383-96-8	Abate
3689-24-5	TEDP
4016-14-2	Isopropyl glycidyl ether
4549-40-0	N-Nitrosomethylvinylamine
5124-30-1	Methylene bis(4-cyclohexylisocyanate)
5714-22-7	Sulfur pentafluoride
6423-43-4	Propylene glycol dinitrate
6923-22-4	Monocrotophos
7429-90-5	Aluminum and compounds
7439-92-1	Lead, inorganic lead compounds, and lead soaps
7439-96-5	Manganese and compounds
7439-97-6	Mercury and compounds
7439-98-7	Molybdenum and compounds
7440-02-0	Nickel and compounds
7440-06-4	Platinum, soluble salts
7440-16-6	Rhodium and compounds
7440-21-2	Silicon
7440-22-4	Silver and compounds
7440-25-7	Tantalum
7440-28-0	Thallium and compounds
7440-31-5	Tin and compounds
7440-33-7	Tungsten and compounds
7440-36-0	Antimony and compounds
7440-38-2	Arsenic and compounds
7440-39-3	Barium compounds (soluble)

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
7440-41-7	Beryllium and compounds
7440-43-9	Cadmium and compounds
7440-44-0	Carbon black
7440-47-3	Chromium and compounds
7440-48-4	Cobalt
7440-50-8	Copper
7440-61-1	Uranium and compounds
7440-62-2	Vanadium
7440-65-5	Yttrium
7440-67-7	Zirconium and compounds
7440-74-6	Indium and compounds
7446-09-5	Sulfur dioxide
7446-27-7	Lead phosphate
7446-34-6	Selenium sulfide
7553-56-2	Iodine
7572-29-4	Dichloroacetylene
7580-67-8	Lithium hydride
7616-94-6	Perchloryl fluoride
7631-86-9	Silica, amorphous
7631-90-5	Sodium bisulfite
7637-07-2	Boron trifluoride
7646-85-7	Zinc chloride fume
7647-01-1	Hydrogen chloride
7664-38-2	Phosphoric acid
7664-39-3	Hydrogen fluoride
7664-41-7	Ammonia
7664-93-9	Sulfuric acid
7681-57-4	Sodium metabisulfite
7697-37-2	Nitric acid
7719-12-2	Phosphorus trichloride
7722-84-1	Hydrogen peroxide
7722-88-5	Tetrasodium pyrophosphate
7723-14-0	Phosphorus, yellow
7726-95-6	Bromine
7727-21-1	Persulfate, potassium
7727-54-0	Persulfate, ammonium
7773-06-0	Ammonium sulfamate (Ammate)
7775-27-0	Persulfate, sodium
7782-41-4	Fluorine
7782-49-2	Selenium and compounds
7782-50-5	Chlorine
7782-65-2	Germanium tetrahydride
7783-06-4	Hydrogen sulfide
7783-07-5	Hydrogen selenide
7783-41-7	Oxygen difluoride
7783-54-2	Nitrogen trifluoride
7783-60-0	Sulfur tetrafluoride
7783-79-1	Selenium hexafluoride
7783-80-4	Tellurium hexafluoride
7784-42-1	Arsine
7786-34-7	Phosdrin (Mevinphos)
7789-30-2	Bromine pentafluoride

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
7790-91-2	Chlorine trifluoride
7803-51-2	Phosphine
7803-52-3	Stibine
7803-62-5	Silicon tetrahydride
8001-35-2	Chlorinated camphene
8002-74-2	Paraffin wax fume
8003-34-7	Pyrethrum
8006-61-9	Gasoline
8006-64-2	Turpentine
8007-45-2	Coal tar pitch volatiles
8022-00-2	Methyl demeton
8030-30-6	Petroleum naphtha
8052-41-3	Stoddard solvent
8052-42-4	Asphalt
8065-48-3	Demeton
9004-66-4	Iron dextran complex
9014-01-1	Subtilisin (Bacillus subtilis Carlsberg)
10025-67-9	Sulfur monochloride
10025-87-3	Phosphorus oxychloride
10026-13-8	Phosphorus pentachloride
10028-15-6	Ozone
10034-93-2	Hydrazine sulfate
10035-10-6	Hydrogen bromide
10049-04-4	Chlorine dioxide
10102-43-9	Nitric oxide
10102-44-0	Nitrogen dioxide
10102-48-4	Lead arsenate
10210-68-1	Cobalt carbonyl
10294-33-4	Boron tribromide
11097-69-1	Chlorodiphenyl (54% chlorine) (PCB)
12001-26-2	Mica
12108-00-2	Methylcyclopentadienyl manganese tricarbonyl
12108-13-3	Manganese cyclopentadienyl tricarbonyl
12125-02-9	Ammonium chloride
12604-58-9	Ferrovanadium dust
13121-70-5	Tricyclohexyltin hydroxide
13256-22-9	N-Nitrososarcosine
13463-39-3	Nickel carbonyl
13463-40-6	Iron pentacarbonyl
13463-67-7	Titanium dioxide
13494-80-9	Tellurium and compounds
13530-65-9	Zinc chromates
13838-16-9	Enflurane
14464-46-1	Cristobalite
14484-64-1	Ferbam
14808-60-7	Silica, quartz
14901-08-7	Cycasin
14977-61-8	Chromyl chloride
15468-32-3	Tridymite
16219-75-3	Ethylidene norbornene
16543-55-8	N-Nitrosonornicotine
16752-77-5	Methomyl

Section 6. Index by CAS Number (Cont'd.)

CAS Number	Hazardous Substance
16842-03-8	Cobalt hydrocarbonyl
17702-41-9	Decaborane
17804-35-2	Benomyl
18454-12-1	Lead chromate
18883-66-4	Streptozotocin
19287-45-7	Diborane
19624-22-7	Pentaborane
20816-12-0	Osmium tetroxide
21087-64-9	Metribuzin
21351-79-1	Cesium hydroxide
22224-92-6	Fenamiphos
25013-15-4	Vinyl toluene
25154-54-5	Dinitrobenzene (all isomers)
25321-14-6	Dinitrotoluene
25551-13-7	Trimethyl benz-Diaminoanisole sulfate
53469-21-9	Chlorodiphenyl (42% chlorine) (PCB)
55720-99-5	Chlorinated diphenyl oxide
59536-65-1	Polybrominated biphenyls (PBB's)
60676-86-0	Silica, fused

Section 7. Hazardous Substances with No CAS Number

Identifier	Hazardous Substance
99999-07-1	Coal dust
99999-07-2	Coke oven emissions
99999-07-3	Cotton dust
99999-08-1	Diatomaceous earth
99999-08-2	Dibutyl phosphate
99999-09-1	1,1-Dimethylhydrazine
99999-11-1	Fibrous glass dust
99999-11-2	Fluorides
99999-11-3	Grain dust
99999-11-4	Graphite, natural
99999-11-5	Graphite, synthetic
99999-12-1	Iron salts
99999-13-1	Isophorone diisocyanate
99999-13-2	Liquefied petroleum gas
99999-13-3	Manganese tetroxide
99999-13-4	Methyl acetylene - propadiene mixture
99999-14-1	Mineral wool fiber
99999-15-1	Naphtha, coal tar
99999-16-1	Oil mist, mineral
99999-16-2	Perlite
99999-16-3	Phenyl ether - biphenyl mixture
99999-17-1	Polytetrafluoroethylene decomposition products
99999-17-2	Portland cement mixture
99999-18-1	Rubber solvent
99999-18-2	Soapstone
99999-19-1	Talc
99999-21-1	Wood dust

Section 8. Federal Reporting Deemed Compliance with State Requirements - The owner or operator of a facility covered under the provisions of §16-31 of the West Virginia Code and this rule who makes the submissions required under §311(a)(1), §312 and §313 of the federal Emergency Planning and Community Right-to-Know Act of 1986, Title III of P.L. 99-499, the Superfund Amendments and Reauthorization Act of 1986, in a timely manner shall be deemed to have complied with the requirements for filing information under the provisions of §16-31-5 ot the West Virginia Code.

Proposed Rules and Proposed
Finding and Determination -
Public Comment Received,
Discussion and Response

Rule: Hazardous Substances, West Virginia Department of Health Legislative Rules 64 CSR 50

Finding and Determination: Finding and Determination Related to Hazardous Substance Reporting Under State and Federal Community Right-to-Know Statutes

A public hearing concerning both the above-titled rule and finding and determination was held Thursday, October 30, 1987. An attendance record is attached. Mr. Charles Ballard, the Safety Manager of the Willow Island Plant of the American Cyanamid Company, on behalf of his company and also representing Mr. Robert G. Worden, President of the West Virginia Manufacturers Association, presented a statement prepared by Mr. Worden for the Manufacturers Association. No comments were received by mail.

In summary, the statement presented supports the Department's finding of similarity between hazardous substance reporting under the West Virginia and Federal statutes.

PUBLIC HEARING

Hazardous Substances - Proposed Amendment
Findings and Determination related to Hazardous Substances Reporting
under State and Federal Community - Right-to-Know Statutes

October 28, 1987

NAME	ADDRESS	GROUP REPRESENTED (IF ANY)	DO YOU WISH TO COMMENT (YES/NO)
CHRIS KORLESKI	PO Box 1791 CHAS. WV 25326 ROBINSON+MCELWEE	WVMA	No
Jim Pinnell	1800 Washington St, E	Dept of Health	
Charles B. Ballard	Willow Island, W. V 26190	WVMA American Cyanamid Co.	YES
M. Ann Bradley	P.O. Box 1791 Robinson + McElwee	WVMA	No
E. E. Hoover	#1 Monsanto Rd. Nitro, WV.	Monsanto Chemical	No

WEST VIRGINIA
MANUFACTURERS ASSOCIATION

SUITE 414
405 CAPITOL STREET
CHARLESTON, WV 25301
TELEPHONE (304) 342-2123

Received 10/29/87 Presented by Mr. Charlie Ballard

STATEMENT OF ROBERT G. WORDEN,
IN SUPPORT OF THE DIRECTOR OF HEALTH'S PROPOSED FINDING AND DETERMINATION RELATED TO HAZARDOUS SUBSTANCE REPORTING UNDER STATE AND FEDERAL COMMUNITY RIGHT-TO-KNOW STATUTES

My name is Robert G. Worden. I am the president of the West Virginia Manufacturers Association. Our Association was an instrumental force in the drafting, modification, and final enactment of the present West Virginia Community Right-to-Know Act, and has closely monitored the Act's operation since it took effect in 1985. At the same time we also watched with great interest as Congress proposed, developed, and enacted the Emergency Planning and Community Right-to-Know Act of 1986, which has the same primary objective as the West Virginia Act, i.e., to enable citizens to obtain information about the hazardous substances present in their communities.

As the State Act clearly points out, the Legislature was aware of the impending enactment of a federal right-to-know statute. Thus, the Legislature expressed clear intent that the State Act should expire upon the enactment of a federal law which would provide the citizens of West Virginia access to substantially the same information to which they had access under the State Act. To that end, the State Act directed the Director of the Department of Health to review the enacted federal law in order to determine whether or not the federal law did in fact assure access to information on hazardous substances to substantially the same degree as the State Act.

With the issuance of this proposed rule, the Director of the Department of Health has concluded his review of the federal law and has made a proposed finding that the federal law does, in fact, assure access by citizens of this state to information substantially similar to that which they could obtain under provisions of the West Virginia Code. Based upon our extensive review of these two laws, we agree with the Director's conclusion.

The actual substantive information to which citizens can obtain access under the federal law is extremely similar to that information obtainable under the state law. For example, under both the federal and state laws, citizens may obtain information such as chemical names, physical and health hazards, physical and chemical characteristics, precautions for safe handling and use, and emergency and first aid procedures.

Second, it should be noted that the federal law relies upon a larger universe of hazardous substances than does the state law, and, under the federal law, the list is more amenable to expansion. For this reason, citizens should be able to obtain information about a greater number of substances under the federal law.

Third, it should be noted that the federal law applies reporting requirements to a larger number of facilities, thereby increasing the total amount of information to which the public has access. This is true because the Occupational Health and Safety Administration has recently expanded the coverage of its Hazard Communication Standard to cover all types of businesses. Those industries newly subject to the Hazard Communication Stand-

ard are now also subject to the federal right-to-know reporting requirements. However, the State Act requires information on hazardous chemicals to be submitted only by the manufacturing sector (SIC Codes 20-39). Hence, under the State law a smaller number of facilities are subject to the reporting requirements.

Fourth, I would like to point out the similarity between the state's "emission notification" reporting requirement and Section 313 of the federal law. Under the State law, subject facilities are required to report to the Department of Health certain information that has previously been submitted to the Air Pollution Control Commission or the DNR regarding the amount of certain hazardous substances emitted to the air or discharged under Water Pollution Control permits. Under the federal law, Section 313 requires facilities using listed toxic chemicals to submit annual "toxic chemical release forms" if the facility manufactures or processes more than certain stated amounts of toxic chemicals. The toxic chemical release forms must include an estimate of the quantity of the chemical entering each environmental medium annually. Clearly the federal requirement is much broader in scope and should allow access to more information than would be available under the State Act.

Fifth, both the West Virginia and the federal laws require reporting of the annual average quantity (in ranges) of hazardous substances on inventory at subject facilities. The State law requires the reporting of this quantity for each hazardous substance. While the federal law initially requires the reporting of this quantity for each <u>category</u> of hazardous substances (called "Tier I" information), the information on

individual chemicals can be obtained upon request. Finally, we note the substantial similarity between the federal and state laws as they relate to the retention and disclosure of proprietary information.

For all these reasons we conclude that the federal law adequately satisfies the standard set out in the State Act, as it enables citizens to obtain access to substantially the same information that would be available under the State Act. Because the federal law clearly meets (and, we believe, exceeds) the standard established by the Legislature for the repeal of the State Act, we concur with the Director of the Department of Health's certification to that effect to the Legislative Rule-Making Review Committee.

Finally, we also agree with and support the Director's finding that, given the substantial similarity between the state and federal reporting requirements, it would be unnecessarily duplicative, wasteful, burdensome, and expensive to require subject facilities to comply with both statutes. Accordingly, we urge the legislature to repeal the present state act, as was clearly intended by the State Act itself.

Arch A. Moore, Jr.
Governor

David K. Heydinger, M.D.
Director

State of West Virginia

DEPARTMENT OF HEALTH
CHARLESTON 25305

November 4, 1987

Honorable Larry A. Tucker, Co-chairman
Honorable Thomas A. Knight, Co-chairman
Legislative Rule-Making Review Committee
Room M-438, State Capitol
Charleston, West Virginia 25305

Dear Senator Tucker and Delegate Knight:

The enclosed "Finding and Determination Related to Hazardous Substance Reporting Under State and Federal Community Right-to-Know Statutes" is hereby submitted to the Legislative Rule-Making Review Committee pursuant to the requirements of W. Va. Code §16-31-8. This Finding is accompanied by a companion filing of a proposed amendment to "Hazardous Substances," West Virginia Department of Health Legislative Rules, 64 CSR 50.

The public hearing and requisite filings for the Finding were carried out in conjunction with the same activities for the proposed rule amendment in order to satisfy the requirements of W. Va. Code §16-31-8. Notice of the public hearing was filed September 29, 1987; the hearing was held October 29, 1987. The notice and the proposed Finding were sent to the West Virginia Manufacturer's Association and to members of the State Emergency Response Committee which includes representatives of state agencies, industry and consumer advocacy groups.

As you are aware, the amendment to the rule is already in effect on an emergency basis, in order to prevent duplicative reporting this fall. I request your attention to this rule in time for action by the 1988 Legislature in order to prevent expiration of the emergency filing. I or my staff will be happy to be of further assistance to you, if needed.

Sincerely,

David K. Heydinger, M.D.

David K. Heydinger, M.D.
Director of Health

DKH:dm

cc: Governor Arch A. Moore, Jr.

Arch A. Moore, Jr.
Governor

David K. Heydinger, M.D.
Director

State of West Virginia

DEPARTMENT OF HEALTH

CHARLESTON 25305

Finding and Determination
Related to Hazardous Substance Reporting
Under State and Federal
Community Right-to-Know Statutes

West Virginia Code, §16-31-1 et seq., known as the Community Right to Know Act, which was passed by the 1985 Legislature, established a state "program for the disclosure of information about hazardous substances in and near the community, and to provide a procedure whereby residents may obtain access to such information." Recognizing that the United States Congress was considering the adoption of similar federal legislation, the Legislature stated in West Virginia Code §16-31-8, headlined "Expiration of act upon passage of federal legislation,":

> "The Legislature recognizes that the United States Congress is considering the adoption of legislation relating to the dissemination of information to the public regarding hazardous substances stored in or near their communities. It is the intention of the Legislature that upon the passage of federal legislation which would assure access by citizens of this state to information substantially similar to that which they could obtain under this article, this article shall be subject to expiration, and therefore have no further effect. It shall be the responsibility of the director [of health], upon the passage of such legislation by the United States Congress, to certify to the legislative rule-making review committee that such federal action has occurred. Such certification shall be subject to all of the procedures set out in chapter twenty-nine-a of this code, relating to the promulgation of a legislative rule."

In October, 1986 the United States Congress passed P.L. 99-499, the "Superfund Amendments and Reauthorization Act of 1986." Title III of this Act, the "Emergency Planning and Community Right-To-Know Act of 1986," established a federal reporting program to be phased in over a period of time with reporting to state and local authorities beginning in October of 1987.

The Director of Health has studied the federal statute and finds that it assures access by citizens of this State to information substantially similar to that which they could obtain under the provisions of West Virginia Code §16-31-1 et seq. In fact, the federal reporting requirements are more extensive than those of the State. For example, reporting is required at lower levels of stored materials, and more information is required to be reported about the hazardous material inventory and where it is stored. A State Emergency Response Commission required by the federal legislation has been formed, with the Director of the Department of Natural Resources serving as the Chairperson. The Department of Health will serve as the state-level

[PROPOSED]

Finding and Determination (Cont'd.)

repository for the information required to be filed under the federal statute.

The Director of the Department of Health therefore hereby certifies to the Legislative Rule-Making Review Committee that federal action has occurred which will assure access by citizens of West Virginia to information substantially similar to that which they could obtain under West Virginia Code §16-31-1 et seq.

Meanwhile, the Director has determined that it is desirable to avoid the cost and effort associated with duplicative reporting which will be required until the State law and regulations are amended or repealed. Compliance with duplicative reporting requirements will create an unnecessary burden on covered industries due to the time, manpower and materials required to produce required reports. Additionally, State and local agencies to whom reports are made would have nonproductive costs of processing and storing duplicative sets of information. The Director has therefore filed on an emergency basis a regulatory provision in the form of an amendment to 64 CSR 50, "Hazardous Substances," which will eliminate the duplicative reporting requirement by deeming compliance with federal reporting requirements as meeting State reporting requirements.

David K. Heydinger, M.D.

David K. Heydinger, M.D.
Director of Health