

University of Texas at Tyler

Hazardous Material Usage Protocol

David H. O'Keeffe, Provost and Vice President for Academic Affairs Date

Jim Ferguson, Vice President for Business Affairs Date

Barbara N. O'Keeffe, Director Environmental Health & Safety Date

Don Killebrew, Chair University Safety Committee Date

Table of Contents

Purpose:.....	3
Hazardous Material Categories:	3
Responsibility.....	3
Hazardous Material Purchasing Policy	3
Application for the Use of a Highly Toxic Chemical.....	5
Memorandum of Understanding and Agreement	7
Use of Hazardous Materials	7
Mandatory Chemical Protocol Review List.....	9
A. Highly Toxic Chemicals	9
B. Carcinogens	9
C. Reproductive Toxins	13
D . Select Agents.....	15
Health & Human Services (HHS) Select Agents.....	15
United States Department of Agriculture (USDA)-HHS Overlap Agents.....	15
USDA High Consequence Livestock Pathogens and Toxins	15
E. Pesticides	16

Purpose:

In order to assure that highly hazardous materials used on the campus of UT Tyler are properly stored, used and disposed of in accordance with all applicable laws and standard laboratory procedures, prior notification to, and approval from, the Department of Environmental Health & Safety (EH&S) is required. The following materials have been deemed to pose a significant health risk to personnel if not used properly.

Hazardous Material Categories:

1. Radioactive Materials
2. Chemical Agents
 - a. Highly toxic chemicals
 - b. Carcinogens
 - c. Reproductive toxins
 - d. Select Agents
 - e. Pesticides
3. Biological Materials
 - a. (BSL-2 classification and greater)
 - b. recombinant DNA

Responsibility

The faculty member/department chair is responsible for obtaining approval for use of the specified materials prior to the initiation of any procedure and purchase of any materials. All protocols utilizing a hazardous material listed on the ***Mandatory Chemical Protocol Review List*** are evaluated to determine if chemicals require committee approval.

Hazardous Material Purchasing Policy

1. Determine if the use of this hazardous material mandates EH&S approval.

The faculty member/department chair should first review the referenced list to determine if the material they would like to acquire requires protocol review. If use of the chemical does not require protocol review, faculty member/department chair will send MSDS of new chemical to EH&S.

2. If use of the material requires protocol review, then the Faculty Member/Department Chair should:

- A. Complete the “Application for the Use of Hazardous Materials.” If the use of the hazardous material requires review, then an *“Application for the Use of Highly Hazardous Materials”* should be completed and submitted to the EH&S office. This form can be completed electronically or the EH&S staff can complete it for you in conjunction with a 25-30 minute consultation.

- B. Submit “Application for the Use of Highly Hazardous Materials” to the EH&S for approval. Once the appropriate forms are completed and submitted, the EH&S evaluates the protocol, and if all conditions are met, grants approval. If approval can not be granted because of usage or storage protocols, the EH&S director will work with the department chair and faculty member to find appropriate methods of storage and usage procedures or alternatives for the research. A summary of the status of all applications is submitted to the appropriate committee for review.

3. Complete a “Memorandum of Understanding for the Use of Hazardous Materials”

Once EH&S preliminary approval is granted, a “Memorandum of Understanding for The Use of Highly Hazardous Materials” is completed.

Application for the Use of a Highly Toxic Chemical

Protocol Number: _____
(to be completed by EH&S)

Section 1 - Applicant Data			
Date:			
Project Name:			
Principal Investigator:		Department:	
Bldg/Room Number:		Office Phone:	
Section 2 - Personnel Involved in Experiments / Years of experience working with agent			
1)			
2)			
3)			
Section 3 - Location where work is to be conducted			
Building :		Room Number :	
Section 4 - Identification of Hazardous Material			
Agent (s):			
Use Quantity:			
Number of Procedures:			
Storage Quantity :			
Section 4a . Chemical/ Industrial Hygiene Related Information (to be completed by EH&S)			
Description:			
Classification:			
Toxicology:			
Routes of Exposure:			
Exposure Limits:			
Other Precautions			

:

Section 5 - Experimental Description (attach page if necessary)

Section 5a – Non-Routine operations

Section 6. Hazard Controls (identify engineering controls/personal protective equipment)

Section 7. Identify Occupational Monitoring Required (if any)

Section 8. Storage

Section 9. Waste Disposal

Section 9. Waste Disposal	
Classification:	
Identify any mixed waste generated:	
Identify method of waste disposal:	
Has source substitution been investigated?	
Can chemical be neutralized/rendered less toxic during experiment?	

Section 10. Fulfillment of UTT Chemical Hygiene Plan Requirements
(completed by EH&S)

Memorandum of Understanding and Agreement
Use of Hazardous Materials

Faculty member/department chair:

Department:

Lab Room No(s):

Phone:

Hazardous Agent:

The UTT policy entitled "Hazardous Material Protocol Review" has been evaluated and the referenced materials are found to meet the following classification.

The proposed experiments utilize one of the following hazardous materials and requires EH&S review:

- _____ Radioactive Material
 - _____ Biological Agent with CDC classification > BSL-2
 - _____ Chemical listed on the "Mandatory Protocol Review Chemical List"
 - _____ Chemical that is highly toxic because of its toxicological properties.
-

I agree to comply with current regulations and university policies pertaining to the use, storage, transfer and shipment of chemical agents. I will also abide by all of the provisions of UT-Tyler Chemical Hygiene Plan and any recommendations of the University Safety Committee.

Faculty member/department chair Signature

Date

The University of Texas - Tyler Department of Environmental Health and Safety has reviewed the above proposal and has verified the classification indicated by the Faculty Member/Department Chair, and that proper usage controls are in place.

EH&S Representative

Date

The University Safety Committee has been provided a summary of this memorandum of understanding and agreement and concurs with the information provided above. The activities described in this protocol will be reviewed annually.

Chair, University Safety Committee

Date

Mandatory Chemical Protocol Review List

A. Highly Toxic Chemicals

Any chemical that meets the Hazard Data criteria and usage criteria are mandated to be reviewed by the University Safety Committee.

Hazard Data		Toxicity Rating	Usage/ Storage
LD-50	LC-50		
< 3 mg/kg	<10 ppm	Class I (Super Toxic)	>90 mg / > 500 mg
4 – 50 mg/kg	10 – 100 ppm	Class II (Extremely Toxic)	>1 g / >10 g

B. Carcinogens

Agent is classified as “carcinogenic to humans”, or “probably carcinogenic to humans by the International Agency for Research on Cancer (IARC)”, or is a “Known Carcinogen” by the National Toxicology Program (NTP).

Chemical	Chemical Abstract Number (CAS)	Chemical	Chemical Abstract Number (CAS)
Acetaldehyde	75-07-0	Acetylaminofluorene,	2 53-96-3
Acrylamide	79-06-1	Acrylonitrile	107-13-1
Actinomycin D	50-76-0	Adriamycin	23214-92-8
Aldrin	309-00-2	Amino-2-methylantraquinone,	1 82-28-0
Aminoanthraquinone,	2 117-79-3	Aminoazotoluene	975-63-6
Aminobiphenyl,	4 92-67-1	Amitrole	618-25-1
Ammonium dichromate (VI)	7789-09-5	Analgesic mixtures (Contain phenacetin)	62-44-2
Anisidine	90-04-0	Anisidine Hydrochloride	134-29-2
Antimony oxide (Antimony trioxide)	1309-64-4	Arsenic acid	7440-38-2
Arsenic pentoxide	1303-28-2	Arsenic trioxide	1327-53-3
Arsenic/Certain Arsenic Compounds	7440-42-1	Arsenious acid	
Asbestos	1332-21-4	Auramine	492-80-8
Azacitidine	320-67-2	Azathioprine	446-86-6
Barium chromate (VI)	10294-40-3	Benz[a]anthracene	56-55-3
Benzene	71-43-2	Benzidine	92-87-5
Benzo[a]pyrene	50-32-8	Benzo[b]fluoranthene	205-99-2
Benzo[j]fluoranthene	205-82-3	Benzo[k]fluoranthene	207-08-9
Benzotrichloride	96-07-7	Beryllium and Certain Beryllium Compounds	7440-41-7
Bis(2-chloroethyl)-2-naphthylamine, N, N	494-03-1	Bischloroethyl Nitrourea(BCNU)	154-93-8
Bis-chloromethyl Ether(BCME)	542-88-1	Bromodichloromethane	75-27-4
Butadiene,1,3	106-99-0	Butanediol Dimethane sulphonate (Myleran), 1,4	55-98-1
Butanone	5407-91-0	Butanone, 4-(N-Nitroso methyl	

		amino)-1-(3-pyridyl)-1-(NNK)	
Butylamine, N-Nitrosodi-n-		Butylated hydroxyanixole	25013-16-5
C.I. Basic red 9		Cadmium and Certain Cadmium Compounds	7440-43-9
Cadmium chloride	10108-64-2	Cadmium fume	
Cadmium sulfate	10124-36-4	Cadmium sulfide	1306-23-6
Calcium chromate (VI)	13765-19-0	Carbon tetrachloride	56-23-5
Chlorambucil	305-3-3	Chlordecone	143-50-0
Chlorendic acid	115-28-6	Chlorinated paraffins (C12 43% Chlorine)	
Chlorinated paraffins (C12 60% Chlorine)	108171-26-2	Chloro-2-methyl propene,3 ,3	563-47-3
Chloroethyl nitrosourea, bis-chloroethyl)-3-cyclohexyl-1-nitrosourea(CCNU), 1 2-	13010-47-4	Chloroform	67-66-3
Chloromethyl ether, bis		Chloromethyl methyl ether	107-30-2
Chlorophenols	95-57-8	Chloroprene, inhibited	126-99-8
Chloropropane	540-54-5	Chloropropane, 1,2-Dibromo-3-(DBCP)	96-12-8
Chlorozotocin	54749-90-5	Chromic acid, disodium salt	
Chromic acid, lead (2+) salt (1:1)		Chromium (VI) compounds	7440-47-3
Chromium phosphate	7789-04-0	Chromium triacetate	
Ciclosporin		Cisplatin	15663-27-1
Cobalt alloy, Co, Cr	7440-48-4	Conestoral	
Conjugated estrogens		Cresidine	120-71-8
Cupferron	135-20-6	Cycasin	14901-08-7
Cyclophosphamide	50-18-0	Cyclosporin A	
Dacarbazine	4342-03-4	DDT	50-29-3
Di(2,3-epoxypropyl) ether (DGE)		Di(2-ethylhexyl)phthalate	117-61-7
Diaminoanisoole and its salts,2,4	615-05-4	Diaminoanisoole sulfate,2,4	39156-41-7
Diaminodiphenyl ether (4,4'. Oxydianiline)	101-80-4	Diaminotoluene,2,4	95-80-7
Dibenz[a,h] acridine	226-36-8	Dibenz[a,h]anthracene	53-70-3
Dibenz[a,j] acridine	224-42-0	Dibenzo[a,e]pyrene	192-65-4
Dibenzo[a,h]pyrene	189-64-0		
Dibenzo[a,j]pyrene	191-30-0	Dibenzo[a,l]pyrene	189-55-9
Dibenzo[cg]carbazole, 7-H	194-59-2	Dibromo-3-chloropropane(DBCP),1,2	96-12-8
Dibromoethane,1,2		Dichlorobenzene, p	106-46-7
Dichlorobenzidine dihydrochloride, 3,3'		Dichlorobenzidine,3,3	91-94-1
Dichloroethane,1,2		Dichloromethane (Methylene Chloride)	75-09-2
Dichloropropene,1,3	542-75-6	Dichlorvos (DDVP)	62-73-7
Dichromic acid, diammonium salt		Dieldrin	60-57-1
Dienestrol	84-17-3	Diepoxybutane	
Diepoxybutane	1464-53-5	Diethyl Sulfate	64-67-5
Diethylstilbestrol(DES)	56-53-1	Diglycidyl resorcinol ether	
Dimethoxybenzidine, 3,3-(ortho-Dianisidine)) 119-90-4	Dimethyl carbamoyl chloride	79-44-7
Dimethyl sulfate	77-78-1	Dimethylaminoazobenzene,	4 60-11-7
Dimethylbenzidine, 3,3'-(o-Tolidine)	119-93-7	Dimethylhydrazine,1,1	57-14-7
Dioxane,1,4	123-91-1	Direct black 38	
Direct blue 6		Dichlorobenzene,p-	106-46-7

Epichlorohydrin	106-89-8	Erionite	12510-42-8
Estra-1,2,5(10),7-tetraene-17-one,3-(sulfooxy)-;sodium salt		Estrogens	
Ethyl acrylate	140-88-5	Ethyl Methanesulfonate	62-50-0
Ethylene dibromide(EDB)	106-93-4	Ethylene dichloride(EDC)	107-06-2
Ethylene oxide	75-21-8	Ethylene Thiourea	96-45-7
Ethyleneimine, inhibited	151-56-4	Formaldehyde (gas)	50-00-0
Fowlers solution	10124-50-2	Glycidol	556-52-5
Gyromitrin		Hexachlorobenzene	118-74-1
Hexachlorobenzene, gamma		Hexachlorobutadiene	87-68-3
Hexachlorocyclohexanes		Hexachloroethane	67-72-1
Hexamethylphosphoramide 680-31-9		Hydrazine	302-01-2
Hydrazine Sulfate 10034-93-2		Hydrazobenzene	122-66-7
Indeno[1,2,3-cd]pyrene 193-39-5		Inorganic acid mists containing sulfuric acid	7664-93-9
IQ(2-Amino-3methylimidazo(4,5-f)quinoline)		Iron-dextran complex	9004-66-4
Kepone (Chlordecone) 143-50-0		Lead (II) phosphate	7446-27-7
Lead acetate 301-04-2		Lead acetate (II), trihydrate	6080-56-4
Lead chromate (VI) oxide	18454-12-1	Lindane, alpha	58-89-9
Lindane, beta		Melphalan	148-82-3
Mestranol 72-33-3		Methoxsalen	298-81-7
Methoxy-psoralen, 5 484-20-8		Methyl Bromide	74-83-9
Methyl Chloride 74-87-3		Methyl Hydrazine 302-15-8	
Methyl Iodide	74-88-4	Methyl Methanesulfonate	66-27-3
Methylaziridine	75-55-8	Methylaziridine, 2-(poyeneimine)	
Methylchrycene, 5	3697-24-3	Methylene bis (N-N-dimethylbenzenamine),4,4	
Methylene bis(2-chloroaniline) (MOCA), 4, 4	101-14-4	Methylene bis(n,n-dimethyl)benzenamine, 4, 4	101-61-1
Methylenedianiline, 4,4	101-77-9	Methylpropene, 1-Chloro-2-	513-37-1
Methylpropene, 3-Chloro-2-	563-47-3	Methyl-N'-nitro-N-nitroso-guanidine, N	70-25-7
Metronidazole	443-48-1	Michler's Ketone	90-94-8
Mirex	2385-85-5	Mitomycin C	50-07-7
Molybdate orange		MOPP and other combined chemotherapy including alkylating	
Mustard gas	505-60-2	Naphthylamine, 2	91-59-8
Naphthylamine, alpha	134-32-7	Naphthylamine, beta	91-89-6
Nickel (II) acetate	373-02-4	Nickel (II)carbonate	12607-70-4
Nickel (II) hydroxide	12054-48-7	Nickel (II) oxide	
Nickel (III) hydroxide		Nickel compounds	
Nickel carbonyl	13463-39-3	Nickel sulfide	
Nickel metallic	7440-02-0	Nitrilotriacetic acid	139-13-9
Nitrobiphenyl, 4	92-93-3	Nitrofen	1836-75-5
Nitrogen mustard	51-75-5	Nitro-n-ethylurea, N	759-73-9
Nitro-n-methylurea, N	684-93-5	Nitro-o-anisidine, 5	99-59-2
Nitropropane, 2	79-46-9	Nitrosodiethanolamine, N	1116-54-7
Nitrosodiethylamine, N	55-18-5	Nitrosodiethylamine, N	55-18-5
Nitrosodimethylamine, N	62-75-9	Nitrosodi-n-butylamine, N	924-16-3
Nitrosodiphenylamine, P	156-10-5	Nitrosomethylvinylamine, N	4549-40-0
Nitrosomorpholine, N	59-89-2	Nitrosornicotine, N	16543-55-8
Nitrosopiperidine, N	100-75-4	Nitrosopyrrolidine, N	930-55-2
Nitrososarcosine, N	13256-22-9	Norethisterone, N	68-22-4

Ochratoxin A	303-47-9	Oestrogen	
Oxymetholone	434-07-1	Pentachlorobiphenyl	
Phenacetin	62-44-2	Phenoxybenzamine hydrochloride	59-96-1
Phenazopyridine	94-76-0	Phenazopyridine hydrochloride	136-40-3
Phenylenediamine, 4-chloro-o-		Phenyl-beta-naphthylamine - N	135-88-6
Phenytoin	63-93-3	Phosphate, Tris-(2,3-dibromopropyl)	
Phtalate, Di-(2-ethylhexyl)		Polybrominated Biphenyls(PBBs)	36355-01-8
Polychlorinated Biphenyls(PCBs)	1336-36-3	Potassium chromate VI	7789-00-6
Potassium dichromate VI	7778-50-9	Procabazine	671-16-9
Procabazine Hydrochloride	366-70-1	Progesterone	57-83-0
Propane sultone, 1,3	1120-71-4	Propiolactone, beta	57-57-8
Propylamine, N, Nitrosodi-n	107-10-8	Propylene oxide	75-56-9
Propylthiouracil	51-52-5	Saccharin,	81-07-2
Saccharin, calcium		Saccharin, sodium salt	128-44-9
Safrole	94-59-7	Silica, Crystalline	14808-60-7
Silicic acid, beryllium salt	7699-41-4	Sodium dichromate (VI)	10588-01-9
Staphylococcal enterotoxins		Streptozotocin 18883-66-4	
Strontium chromate	7789-06-2	Styrene -7,8-oxide	
Sulfallate	95-06-7	Sulfur trioxide	7446-11-9
Tetrachlorodibenzo-para-dioxin		Tetrachlorodibenzo-p-dioxin(TCDD), 2,3,7,8	1746-01-6
Tetrachloroethane	79-34-5	Tetrachloroethane, 1,1,2,2	79-34-5
Tetrachloroethylene	127-18-4	Tetranitromethane	509-14-8
Thioacetamide	62-55-5	Thiotepa	52-24-4
Thiourea	62-56-6	Thorium Dioxide	1314-20-1
Toluene diisocyanate	26471-62-5	Toluidine Hydrochloride, o-	636-21-5
Toluidine, o-	95-53-4	Toluidine, p-	106-49-0
Toluidine, p Chloro-o-		Toxaphene	8001-35-2
Trenimone 010		Treosulphan	299-75-2
Trichloroethylene	79-01-6	Trichlorophenol, 2,4,6	88-06-2
Trichloropropane, 1,2,3-		Triethylenemelamine	51-18-3
Tris(1-aziridinyl)phosphine Sulphide	52-24-4	Tris(2,3-dibromopropyl) phosphate	126-72-7
Tris(aziridinyl)-para-benzoquinone (Triziquone)	68-76-8	Uracil Mustard	66-75-1
Urethane	51-79-6	Vinyl bromide	593-60-2
Vinyl chloride	75-01-4	Vinyl Cylohexene Dioxide	106-87-6
Vinyl Fluoride	75-02-5	Vinylidene Fluoride Monomer	75-38-7
Zinc Chromate	13530-65-9		

C. Reproductive Toxins

Agents known to cause either male and female reproductive toxicity by the State of California.

Chemical	CAS	Chemical	CAS
Acetihydroxamic Acid	546-88-3	Actinomycin D	50-76-0
All-trans retinoic Acid	302-79-4	Alprazolam	28981-97-7
Amikacin Sulfate	39831-55-5	Aminoglutethimide	125-84-8
Amonoglycosides		Aminopterin	54-62-6
Amiodarone hydrochloride	19774-82-4	Amoxapine	14028-44-5
Angiotensin converting enzyme inhibitors	1407-47-2	Anisindione	117-37-3
Arsenic	7440-42-1	Aspirin	50-78-2
Atenolol	29122-68-7	Azathioprine	446-86-6
Barbituates		Beclomethasone dipropionate	5534-09-8
Benomyl	17804-35-2	Benzene	71-43-2
Benzphetamine hydrochloride	5411-22-3	Benzodiazepines	
Bischloroethyl nitrosurea (BCNU)	154-93-8	Bromoxnyl	1689-84-5
Butabarbital sodium	143-81-7	Butanediol dimethylsulfonate, 1,4'	55-98-1
Cadmium	7440-43-9	Carbon Disulfide	75-15-0
Carbon Monoxide	630-08-0	Carboplatin	41575-94-4
Chenodiol	474-25-9	Chinomethionat	2439-01-2
Chlorambucil	305-03-3	Chlorcyclizine hydrochloride	1620-21-9
Chlordecone	143-50-0	Chlodiazepoxide	58-25-3
Chlodiazepoxide hydrochloride	438-41-5	CCNU	13010-47-4
Cladribine	4291-63-8	Clarithromycin	81103-11-9
Clobetasol propionate	25122-46-7	Clomiphene citrate	50-41-9
Clorazepate dipotassium	57109-90-7	Cocaine	50-36-2
Codeine phosphate	52-28-8	Colchicine	64-86-8
Cojugated estrogens	-----	Cyanazine	21725-46-2
Cycloheximide	66-81-9	Cyclophosphamide (anhydrous)	50-18-0
Cyclophosphamide (hydrated)	6055-19-2	Cyhexatin	13121-70-5
Cytarabine	147-94-4	Danazol	17230-88-5
Daunorubicin hydrochloride	23541-50-6	DDT, o,p-	789-02-6
DDT, p,p-	50-29-3	Demeclocycline Hydrochloride	64-73-3
Diazepam	439-14-5	Dicumarol	66-76-2
Diethylstilbestrol (DES)	56-53-1	Dihydroergotamine mesylate	6190-39-2
Dinocap	39300-45-3	Dinoseb	88-85-7
Diphenylhydantoin (Phenyton)	57-41-0	Doxycycline (internal)	564-25-0
Doxycycline calcium (internal)	94088-85-4	Doxycycline hyclate (internal)	24390-14-5
Doxycycline monohydrate (internal)	17086-28-1	Endrin	72-20-8
Ergotamine tartrate	379-79-3	Estroproipate	7280-37-7
Ethionamide	536-33-4	Ethylene dibromide	106-93-4
Ethylene glycol monoethyl ether	110-80-5	Ethylene glycol monomethyl ether	109-86-4
Ethylene glycol monoethyl ether acetate	111-15-9	Ethylene glycol monomethyl ether acetate	110-49-6
Ethylene thiourea	96-45-7	Etoposide	33419-42-0
Etretinate	54350-48-0	Fluazifop butyl	69806-50-4
Flunisolide	3385-03-3	Fluoruracil	51-12-8
Fluoxymesterone	76-43-7	Flurazepam hydrochloride	1172-18-5
Flutamide	13311-84-7	Fluticasone propionate	80474-14-2
Fluvalinate	69409-94-5	Ganciclovir sodium	82410-32-0

Goserelin acetate	65807-02-5	Halazepam	23092-17-3
Halothane	151-67-7	Hexachlorobenzene	118-74-1
Histrelin acetate		Hydroxyurea	127-07-0
Ifosfamide	3778-73-2	Iodine 131	10043-66-0
Isotretinoin	4759-48-2	Lead	7439-92-1
Leuprolide acetate	74381-53-6	Lithium carbonate	554-13-2
Lithium citrate	919-16-4	Lorazepan	846-49-1
Lovastatin	75330-75-5	Medroxyprogesterone acetate	71-58-9
Megestrol acetate	595-33-5	Melphalan	148-82-3
Menotropins	9002-68-0	Meprobamate	57-53-4
Mercaptopurine	6112-76-1	Mercury compounds	7439-97-6
Methacycline hydrochloride	3963-95-9	Metham sodium	137-42-8
Methimazole	60-56-0	Methotrexate	59-05-2
Methotrexate sodium	15475-56-6	Methyl bromide as structural fumigant	74-83-9
Methyl Mercury	593-74-8	Methyltestosterone	58-18-4
Midazolam hydrochloride	59467-96-8	Minocycline hydrochloride	13614-98-7
Misoprostol 5	9122-46-2	Mitoxantrone hydrochloride	0476-82-3
Nafarelin acetate	86220-42-0	Neomycin sulfate	1405-10-3
Netilmicin sulfate 5	6391-57-2	Nickel carbonyl	13463-39-3
Nicotine	54-11-5	Nitrogen Mustard	51-75-2
Nitrogen Mustard hydrochloride	55-86-7	Norethisterone	68-22-4
Norethisterone acetate	51-98-9	Norethisterone/Ethinyl estradiol	68-22-4/57-63-6
Norethisterone Mestranol	68-22-4/72-33-3	Noroestrel	6533-00-2
Oxadiazon	19666-30-9	Oxazepam	604-75-1
Oxymetholone	434-07-0	Oxytetracycline	79-57-2
Oxytetracycline hydrochloride	2058-46-0	Paclitaxel	33069-62-4
Paramethadione	115-67-3	Penicillamine	52-67-5
Pentobarbitol sodium	57-33-0	Pentostatin	53910-25-1
Phenacemide	63-98-9	Phenprocoumon	435-97-2
Pipobroman	54-91-1	Plicamycin	18378-89-7
Polybrominated Biphenyls	36355-01-8	Polychlorinated Biphenyls	1336-36-3
Procarbazine hydrochloride	366-70-1	Propylthiouracil	51-52-5
Quazepam	36735-22-5	Resmethrin	10453-86-8
Retinol/retinyl esters		Ribavirin	36791-04-5
Secobarbitol sodium	309-43-3	Streptomycin sulfate	3810-74-0
Tamoxifen citrate	54965-24-1	Temazepan	846-50-4
Teniposide	29767-20-2	Testosterone cypionate	58-20-8
Testosterone enantahate	315-37-7	TCDD	1746-01-6
Tetracycline (internal)	60-54-8	Tetracycline hydrochloride (internal)	64-75-5
Thalidomide	50-35-1	Thiuganine	154-42-7
Tobramycin Sulfate	49842-07-1	Triazolam	28911-01-5
Trilostane	13647-35-3	Trimethadione	127-48-0
Trimetrexate glucuronate	82952-64-5	Uracil Mustard	66-75-1
Urethane	51-79-6	Urofollitropin	26995-91-5
Valproate (Valproic acid)	99-66-1	Vinblastine sulfate	143-67-9
Vinclozin	50471-44-8	Vincristine sulfate	2068-78-2
Warfarin	81-81-2		

D . Select Agents

Health & Human Services (HHS) Select Agents

- CRIMEAN-CONGO HAEMORRHAGIC FEVER VIRUS
- EBOLA VIRUSES
- LASSA FEVER VIRUS
- MARBURG VIRUS
- RICKETTSIA PROWAZEKII*
- RICKETTSIA RICKETTSII*
- SOUTH AMERICAN HAEMORRHAGIC FEVER VIRUSES
- TICK-BORNE ENCEPHALITIS COMPLEX VIRUSES
- VARIOLA MAJOR VIRUS (SMALLPOX VIRUS)
- VIRUSES CAUSING HANTAVIRUS PULMONARY SYNDROME
- YELLOW FEVER VIRUS
- YERSINIA PESTIS*
- ABRIN
- CONOTOXINS
- DIACETOXYSCIRPENOL
- RICIN
- SAXITOXIN
- TETRODOTOXIN

United States Department of Agriculture (USDA)-HHS Overlap Agents

- BACILLUS ANTHRACIS*
- BRUCELLA ABORTUS*
- BRUCELLA MELITENSIS*
- BRUCELLA SUIIS*
- BURKHOLDERIA (PSEUDOMONAS) MALLEI*
- BURKHOLDERIA (PSEUDOMONAS) PSEUDOMALLEI*
- CLOSTRIDIUM BOTULINUM*
- COCCIDIOIDES IMMITIS*
- COXIELLA BURNETII*
- EASTERN EQUINE ENCEPHALITIS VIRUS
- EQUINE MORBILLIVIRUS (HENDRA VIRUS)
- FRANCISELLA TULARENSIS*
- RIFT VALLEY FEVER VIRUS
- VENEZUELAN EQUINE ENCEPHALITIS VIRUS
- AFLATOXINS
- BOTULINUM TOXINS
- CLOSTRIDIUM PERFRINGENS* EPSILON TOXIN
- SHIGATOXIN
- STAPHYLOCOCCAL ENTEROTOXIN
- T-2 TOXIN

USDA High Consequence Livestock Pathogens and Toxins

- AFRICAN HORSE SICKNESS VIRUS
- AFRICAN SWINE FEVER VIRUS
- AKABANE VIRUS
- AVIAN INFLUENZA VIRUS (HIGHLY PATHOGENIC)
- BLUE TONGUE VIRUS (EXOTIC)
- BOVINE SPONGIFORM ENCEPHALOPATHY AGENT
- CAMEL POX VIRUS
- CLASSICAL SWINE FEVER VIRUS
- COWDRIA RUMINANTIIUM (HEARTWATER)
- FOOT AND MOUTH DISEASE VIRUS
- GOAT POX VIRUS
- JAPANESE ENCEPHALITIS VIRUS

- ❑ LUMPY SKIN DISEASE VIRUS
- ❑ MALIGNANT CATARRHAL FEVER VIRUS
- ❑ MENANGLE VIRUS
- ❑ *MYCOPLASMA CAPRICOLUM/M.F 38/M.MYCOIDES CAPRI* (CONTAGIOUS CAPRINE PLEUROPNEUMONIA AGENT)
- ❑ *MYCOPLASMA MYCOIDES MYCOIDES* (CONTAGIOUS BOVINE PLEUROPNEUMONIA AGENT)
- ❑ NEWCASTLE DISEASE VIRUS (EXOTIC)
- ❑ NIPAH VIRUS
- ❑ PESTE DES PETITS RUMINANTS VIRUS
- ❑ RINDERPEST VIRUS
- ❑ SHEEP POX VIRUS
- ❑ SWINE VESICULAR DISEASE VIRUS
- ❑ VESICULAR STOMATITIS VIRUS

Exemptions: Toxins for medical use, inactivated for use as vaccines, or toxin preparations for biomedical research use at an LD₅₀ for vertebrates of more than 100 nanograms per kilogram body weight are exempt. National standard toxins required for biologic potency testing as described in 9 CFR Part 113 are exempt.

Recombinant organisms/molecules

Genetically modified microorganisms or genetic elements from organisms on Appendix A, shown to produce or encode for a factor associated with a disease. Genetically modified microorganisms or genetic elements that contain nucleic acid sequences coding for any of the toxins listed in this Appendix, or their toxic subunits.

Other restrictions

The deliberate transfer of a drug resistance trait to microorganisms listed in this appendix that are not known to acquire the trait naturally is prohibited by NIH "Guidelines for Research Involving Recombinant DNA Molecules," if such acquisition could compromise the use of the drug to control these disease agents in humans or veterinary medicine.

E. Pesticides

Agents classified as a "pesticide" by the EPA under the Federal Insecticide, Rodenticide Act, (FIFRA)- Title 7, United States Code, Chapter 125, Section 2

Chemical	CAS	Chemical	CAS
Azinphos methyl	86-50-0	Demeton	8065-48-3
Disulfoton	298-04-4	Fensulfoton	115-90-2
Mevinphos	7786-34-7	Nemaphos 2	97-97-2
Parathion	56-38-2	Parathion methyl	298-00-2
Phorate 2	98-02-2	TEPP	107-79-3
DDT	50-29-3	DDE	72-55-9
DDD(Rothane)	72-54-8	Aldrin	309-00-2
Endrin	72-20-8	Endosulfan	115-29-7
Isobenzan(telodrin)	297-78-9	Chlordane	57-74-9
Heptachlor	76-44-8	Hexachlorocyclohexane	319-84-6
Lindane	58-89-9	Chlordecone(Kepone)	143-50-0
Kelevan	050	Mirex(Dechlorane)	2385-85-5
Dicoflol(Kelthane)	115-32-2	Methoxychlor(Marlate)	72-43-5
Toxaphene	8001-35-2		