Extremely Hazardous Materials List

The list below contains extremely hazardous chemicals and pathogens/toxins identified by the EPA, CDC, and OSHA. In order for the EH&S Department to adequately monitor the chemicals on this list, an email notification shall be submitted to EH&S prior to purchasing the materials identified on the list.

Chemical Name	CAS#	Hazard Type
1-(o-Chlorophenyl)thiourea	5344-82-1	P026
1,2-Dibromo-3-chloropropane	96-12-8	Carcinogen
1,2-Propylenimine	75-55-8	P067
1,3-Butadiene	106-99-0	Carcinogen
2,4-Dinitrophenol	51-28-5	P048
2-Acetylaminofluorene	53-96-3	Carcinogen
2-Methyllactonitrile	75-86-5	P069
2-Propen-1-ol	107-18-6	P005
2-Propenal	107-02-8	P003
3,3'-Dichlorobenzidine	612-83-9	Carcinogen
3-Chloropropionitrile	542-76-7	P027
4,6-Dinitro-o-cresol, & salts	534-52-1	P047
4-Aminodiphenyl	92-67-1	Carcinogen
4-Dimethylaminoazobenzene	60-11-7	Carcinogen
4-Nitrobiphenyl	92-93-3	Carcinogen
4-Pyridinamine	504-24-5	P008
Acrylonitrile	107-13-1	Carcinogen
Aldicarb	116-06-3	P070
Aldicarb sulfone	1646-88-4	P203
Aldrin	309-00-2	P004
alpha,alpha-Dimethylphenethylamine	122-09-8	P046
alpha-Naphthylamine	134-32-7	Carcinogen
alpha-Naphthylthiourea	86-88-4	P072
Aluminum Phosphide(R,T)	20859-73-8	P006
Ammonium picrate (R)	131-74-8	P009
Ammonium Vanadate	7803–55–6	P119
Argentate(1-), bis(cyano-C)-, potassium	506-61-6	P099
Arsenic acid H3 AsO4	7778–39–4	P010
Arsenic compounds, inorganic		Carcinogen
Arsenic oxide As2 O3	1327–53–3	P012
Arsenic pentoxide	1303–28–2	P011
Arsine	7784-42-1	Carcinogen; HIGHLY TOXIC
Asbestos		Carcinogen
Azinphos-methyl	85-50-0	EPA Extremely Hazardous Substance;

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Barium cyanide	542–62–1	P013
Benzene	71-43-2	Carcinogen
Benzenearsonic acid	98-05-5	EPA Extremely Hazardous Substance;
Benzenethiol	108–98–5	P014
Benzidine	92-87-5	Carcinogen
Benzyl chloride	100-44-7	P028
Beryllium	7440-41-7	Carcinogen; Highly Toxic; P015
Beryllium compounds		Carcinogen; Highly Toxic
beta-Naphthylamine	91-59-8	Carcinogen
beta-Propiolactone	57-57-8	Carcinogen
Bis(chloromethyl)ether	542-88-1	Carcinogen; P016
Bromoacetone	598-31-2	P017
Brucine	357-57-3	P018
Cadmium fume/dust	7440-43-9	Carcinogen
Calcium cyanide	592-01-8	P021
Carbofuran	1563-66-2	EPA Extremely Hazardous Substance; P127
Carbon disulfide	75-15-0	OSHA Table Z-2; P022
Carbon tetrachloride	56-23-5	OSHA Table Z-2
Carbosulfan.	55285-14-8	P189
Chloroacetaldehyde	107-20-0	P023
Chloromethyl methyl ether	107-30-2	Carcinogen
Chromic acid	7738-94-5	Carcinogen
Chromic chloride	10025-73-7	EPA Extremely Hazardous Substance
Chromium, hexavalent		Carcinogen
Cobalt carbonyl	10210-68-1	EPA Extremely Hazardous Substance
Colchicine	64-86-8	EPA Extremely Hazardous Substance
Copper cyanide	544-92-3	P029
Cyanides (soluble cyanide salts)		P030
Cyanogen	460-19-5	P031
Cyanogen chloride	506-77-4	P033
Dichlorophenylarsine	696-28-6	P036
Dieldrin	60-57-1	P037
Diethylarsine	692-42-2	P038
Digoxin	20830-75-5	EPA Extremely Hazardous Substance
Dimethoate	60-51-5	P044
Dimethyl-p-phenylenediamine	99-98-9	EPA Extremely Hazardous Substance
Dimetilan.	644-64-4	P191
Dinitrocresol	534-52-1	EPA Extremely Hazardous Substance
Dinoseb	88-85-7	P020
Diphacinone	82-66-6	EPA Extremely Hazardous Substance
Diphosphoramide, octamethyl-	152-16-9	P085

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Disulfoton	298-04-4	P039
Dithiobiuret	541-53-7	P049
Endosulfan	115-29-7	EPA Extremely Hazardous Substance
Endosulfan	115-29-7	P050
Endothall	145-73-3	P088
Endrin, & metabolites	72-20-8	P051
Epinephrine	51-43-4	P042
Ethyl cyanide	107-12-0	P101
Ethylene fluorohydrin	371-62-0	EPA Extremely Hazardous Substance
Ethylene oxide	75-21-8	Carcinogen
Ethyleneimine	151-56-4	P054
Ethyleneimine	51-56-4	Carcinogen
Famphur	52-85-7	P097
Fluorine	7782-41-4	P056
Fluoroacetamide	640-19-7	P057
Fluoroacetic acid, sodium salt	62-74-8	P058
Fluoroacetyl chloride	359-06-8	EPA Extremely Hazardous Substance
Formaldehyde	50-00-0	Carcinogen
Formetanate hydrochloride.	23422-53-9	P198
Formparanate.	17702-57-7	P197
Heptachlor	76-44-8	P059
Hydrazinecarbothioamide	79-19-6	P116
Hydrogen cyanide	74-90-8	P063
Hydrogen fluoride	7664-39-3	OSHA Table Z-2
Hydrogen phosphide	7803-51-2	P096
Hydrogen selenide	7783075	EPA Extremely Hazardous Substance
Isodrin	465-73-6	P060
Isolan.	119-38-0	P192
Lewisite	541-25-3	EPA Extremely Hazardous Substance
Manganese dimethyldithiocarbamate.	15339-36-3	P196
m-Cumenyl methylcarbamate.	64-00-6	P202
Merchlorethamine	51-75-2	EPA Extremely Hazardous Substance
Mercury fulminate (R,T)	628-86-4	P065
Methanethiol, trichloro-	75-70-7	P118
Methiocarb.	2032-65-7	P199
Methomyl	16752-77-5	P066
Methyl hydrazine	60-34-4	P068
Methyl isocyanate	624-83-9	P064
Methyl parathion	298-00-0	P071
Methyl vinyl ketone	78-94-4	EPA Extremely Hazardous Substance
Methylene chloride	75-09-2	OSHA Table Z-2
Methylenedianiline	101-77-9	Carcinogen

Extremely Hazardous Materials List

Metolcarb.	1129-41-5	P190
Mexacarbate.	315-8-4	P128
Monocrotophos	6923-22-4	EPA Extremely Hazardous Substance
Muscimol	2763-96-4	P007
Nickel carbonyl	13463-39-3	P073
Nickel cyanide	557-19-7	P074
Nicotine, & salts	54-11-5	P075
Nitric oxide	10102-43-9	P076
Nitrogen dioxide	10102-44-0	P078
Nitroglycerine (R)	55-63-0	P081
N-Nitrosodiemthylamine	62-75-9	Carcinogen; P082
N-Nitrosomethylvinylamine	4549-40-0	P084
Organomercury compounds		HIGHLY TOXIC; OSHA Table Z-2
Organorhodium complex		EPA Extremely Hazardous Substance
Osmium tetroxide	20816-12-0	P087
Oxamyl.	23135-22-0	P194
Paraquat	1910-42-5	EPA Extremely Hazardous Substance
Paraquat methosulfate	2074-50-2	EPA Extremely Hazardous Substance
Parathion	56-38-2	P089
p-Chloroaniline	106-47-8	P024
Phenol, 2-cyclohexyl-4,6-dinitro-	131-89-5	P034
Phenol, 2-methyl-4,6-dinitro-, & salts	534-52-1	P047
Mexacarbate	315-18-4	P128
Phenylmercury acetate	62-38-4	P092
Phenylthiourea	103-85-5	P093
Phorate	298-02-2	P094
Phosgene	75-44-5	P095
Phosmet	732-11-6	EPA Extremely Hazardous Substance
Phosphoric acid, diethyl 4-nitrophenyl ester	311-45-5	P041
Isofluorphate	55-91-4	P043
Thionazin	297-97-2	P040
Phosphorus pentoxide	1314-56-3	EPA Extremely Hazardous Substance
Phosphorus, elemental, white or yellow	7723-14-0	Pyrophoric material; HIGHLY TOXIC
Physostigmine salicylate.	57-64-7	P188
Physostigmine.	57-47-6	P204
p-Nitroaniline	100-01-6	P077
Potassium cyanide	151-50-8	P098
Promecarb	2631-37-0	P201
Propargyl alcohol	107-19-7	P102
Propargyl bromide	106-96-7	EPA Extremely Hazardous Substance

Sarin	107-44-8	EPA Extremely Hazardous Substance
Selenourea	630-10-4	P103
Silver cyanide	506-64-9	P104
Sodium azide	26628-22-8	P105
Sodium cyanide	143-33-9	P106
Strychnine, & salts	57-24-9	P108
Styrene	100-42-5	OSHA Table Z-2
Sulfuric acid, dithallium(1+) salt	7446-18-6	P115
Tabun	77-81-6	EPA Extremely Hazardous Substance
tert-Butyl hydroperoxide	75-91-2	Organic peroxide;
Tetraethyl lead	78-00-2	P110
Tetraethyl pyrophosphate	107-49-3	P111
Tetraethyldithiopyrophosphate	3689-24-5	P109
Tetranitromethane (R)	509-14-8	P112
Tetraphosphoric acid, hexaethyl ester	757-58-4	P062
Thallic oxide	1314-32-5	P113
Thallium(I) selenite	12039-52-0	P114
Thiofanox	39196-18-4	P045
Toxaphene	8001-35-2	P123
Uranium compounds, inorganic		Carcinogen; HIGHLY TOXIC; Radioactive
Vanadium Pentoxide	1314-62-1	P120
Vinyl chloride	75-01-4	OSHA Table Z-2;
Warfarin & Salts	81-81-2	P001
Zinc phospide Zn3p2	1314-84-7	P122
Zinc,bis(dimethylcarbamodithioato-S,S')-,	137-30-4	P205
Ziram	137-30-4	P205

Select Agents and Toxins List

The following biological agents and toxins have been determined to have the potential to pose a severe threat to both human and animal health, to plant health, or to animal and plant products. An attenuated strain of a select agent or an inactive form of a select toxin may be excluded from the requirements of the Select Agent Regulations. Here is a list of excluded agents and toxins.

HHS and USDA Select Agents and Toxins
7CFR Part 331, 9 CFR Part 121, and 42 CFR Part 73

HHS SELECT AGENTS AND TOXINS	OVERLAP SELECT AGENTS AND TOXINS
Abrin	*Bacillus anthracis**

Extremely Hazardous Materials List

Bacillus cereus Biovar *anthracis**
Botulinum neurotoxins*
Botulinum neurotoxin producing species of *Clostridium**
Conotoxins (Short, paralytic alpha conotoxins containing the following amino acid sequence $X_1CCX_2PACGX_3X_4X_5X_6CX_7$)[1]
Coxiella burnetii
Crimean-Congo haemorrhagic fever virus
Diacetoxyscirpenol
Eastern Equine Encephalitis virus[3]
Ebola virus*
*Francisella tularensis**
Lassa fever virus
Lujo virus
Marburg virus*
Monkeypox virus[3]
Reconstructed replication competent forms of the
1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments (Reconstructed 1918 Influenza virus)
Ricin
Rickettsia prowazekii
SARS-associated coronavirus (SARS-CoV)
Saxitoxin
South American Haemorrhagic Fever viruses:
Chapare
Guanarito
Junin
Machupo
Sabia
Staphylococcal enterotoxins A,B,C,D,E subtypes
T-2 toxin
Tetrodotoxin
Tick-borne encephalitis complex (flavi) viruses:
Far Eastern subtype
Siberian subtype
Kyasanur Forest disease virus
Omsk hemorrhagic fever virus
Variola major virus (Smallpox virus)*
Variola minor virus (Alastrim)*
*Yersinia pestis**

Bacillus anthracis Pasteur strain
Brucella abortus
Brucella melitensis
Brucella suis
*Burkholderia mallei**
*Burkholderia pseudomallei**
Hendra virus
Nipah virus
Rift Valley fever virus
Venezuelan equine encephalitis virus[3]

USDA SELECT AGENTS AND TOXINS

African horse sickness virus
African swine fever virus
Avian influenza virus[3]
Classical swine fever virus
Foot-and-mouth disease virus*
Goat pox virus
Lumpy skin disease virus
Mycoplasma capricolum[3]
Mycoplasma mycoides[3]
Newcastle disease virus[2,3]
Peste des petits ruminants virus
Rinderpest virus*
Sheep pox virus
Swine vesicular disease virus

USDA PLANT PROTECTION AND QUARANTINE (PPQ) SELECT AGENTS AND TOXINS

Peronosclerospora philippinensis (Peronosclerospora sacchari)
Phoma glycinicola (formerly Pyrenochaeta glycines)
Ralstonia solanacearum
Rathayibacter toxicus
Sclerophthora rayssiae
Synchytrium endobioticum
Xanthomonas oryzae

Extremely Hazardous Materials List

*Denotes Tier 1 Agent

[1] C = Cysteine residues are all present as disulfides, with the 1st and 3rd Cysteine, and the 2nd and 4th Cysteine forming specific disulfide bridges; The consensus sequence includes known toxins α-MI and α-GI (shown above) as well as α-GIA, Ac1.1a, α-CnIA, α-CnIB; X1 = any amino acid(s) or Des-X; X2 = Asparagine or Histidine; P = Proline; A = Alanine; G = Glycine; X3 = Arginine or Lysine; X4 = Asparagine, Histidine, Lysine, Arginine, Tyrosine, Phenylalanine or Tryptophan; X5 = Tyrosine, Phenylalanine, or Tryptophan; X6 = Serine, Threonine, Glutamate, Aspartate, Glutamine, or Asparagine; X7 = Any amino acid(s) or Des X and; "Des X" = "an amino acid does not have to be present at this position." For example if a peptide sequence were XCCHPA then the related peptide CCHPA would be designated as Des-X.

[2] A virulent Newcastle disease virus (avian paramyxovirus serotype 1) has an intracerebral pathogenicity index in day-old chicks (Gallus gallus) of 0.7 or greater or has an amino acid sequence at the fusion (F) protein cleavage site that is consistent with virulent strains of Newcastle disease virus. A failure to detect a cleavage site that is consistent with virulent strains does not confirm the absence of a virulent virus.

[3] Select agents that meet any of the following criteria are excluded from the requirements of this part: Any low pathogenic strains of avian influenza virus, South American genotype of eastern equine encephalitis virus , west African clade of Monkeypox viruses, any strain of Newcastle disease virus which does not meet the criteria for virulent Newcastle disease virus, all subspecies Mycoplasma capricolum except subspecies capripneumoniae (contagious caprine pleuropneumonia), all subspecies Mycoplasma mycoides except subspecies mycoides small colony (Mmm SC) (contagious bovine pleuropneumonia), and any subtypes of Venezuelan equine encephalitis virus except for Subtypes IAB or IC, provided that the individual or entity can verify that the agent is within the exclusion category.