RULES AND REGULATIONS GOVERNING
SCHOOLS IN THE STATE OF COLORADO

6 CCR 1010-6

http://www.cdphe.state.co.us/op/regs/consumer/101006schools.pdf

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COLORADO REVISED STATUTE

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
CONSUMER PROTECTION DIVISION
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
303-692-3620
www.cdphe.state.co.us

Chapter Eight
Laboratory, Industrial, Art, And Vocational Hazards

General

8-101 Provisions shall be made for the protection of students engaging in arts, crafts, industrial arts, physical sciences, vocational, educational or any activities where hazardous chemicals, hazardous devices or hazardous equipment are used. These provisions include the development and posting of operating instructions, regulations and procedures.

8-102 Toxic or hazardous materials shall be stored in approved laboratory containers, separated by reactive group and stored in a ventilated, locked, fire-resistant area or cabinet. The ventilation requirement of this section may not be required where minimum quantities of such materials are stored for daily use.

8-103 Containers of chemicals, poisons, corrosive substances and flammable liquids shall be clearly labeled with the name of the material and the date the material entered the school.

8-104 Prohibited chemicals are those chemicals that pose an inherent, immediate and potentially life threatening risk, injury or impairment due to toxicity or other chemical properties to the students, staff or other occupants of the school. These chemicals are prohibited from use and/or storage at the school and the school is prohibited from purchasing or accepting donations of such chemicals. Prohibited chemicals are listed in Appendix A to this regulation.

8-105 Restricted chemicals are those chemicals that are restricted by use, and/or quantities. If restricted chemicals are present at the school, each chemical shall be addressed in the school's written emergency plan as addressed in sections 8-112 and 8-113 of these regulations. Restricted chemicals are listed in Appendix B to this regulation.

8-106 Restricted chemicals (demonstration use only) are a subclass in the restricted chemical lists that are limited to instructor demonstration. Students may not participate in the handling or preparation of restricted chemicals as part of a demonstration. If restricted chemicals (demonstration use only) are present at the school, each chemical shall be addressed in the school's written emergency plan as addressed in sections 8-112 and 8-113 of these regulations. Demonstration only chemicals are listed in Appendix B2 to this regulation.

8-107 Exposure to noise, or toxic liquids, dusts, gases, mists, fumes or vapors or other hazards shall be controlled to avoid health hazards.

8-108 All chemicals, solvents, and hazardous substances shall be inventoried by the school a minimum of once a year. The inventory shall include the name of the compound, the amount, and the date it entered the school. A copy of the inventory shall be kept on file in a location away from the areas where the aforementioned materials are stored.

8-109 A current material safety data sheet shall be provided for all poisonous, toxic, or hazardous substances and shall be available for review upon request.

8-110 In the absence of more stringent guidelines the 2000 National Fire Protection Association Code 30 Flammable and Combustible Liquids Code and 2000 National Fire Protection Association Code 45 Fire Protection for Laboratories Using Chemicals shall be used as guidelines for the proper storage, handling and use of chemicals in the school.

8-111 Refrigerators used for flammable compounds shall be prominently marked to indicate they meet the appropriate design requirements for safe storage of flammable liquids.

8-112 A written plan for response to and cleanup of chemical spills shall be provided by the school. A copy of the plan shall be kept on file in a location away from the areas where chemicals are stored.

8-113 A written plan that explains the proper storage, handling and disposal procedures for all poisonous, toxic or hazardous substances shall be on file in each school in a location away from the areas where these substances are stored and shall be available for review upon request.

8-114 A list of first aid procedures for accidental poisoning shall be posted. The telephone number and location of the nearest poison control center shall be posted near the telephone.

8-115 The storage, preparation, and consumption of food and drink is prohibited in any area where there are poisonous, toxic or hazardous substances.

8-116 Glassware shall be properly constructed and designed for its intended use and shall be handled and stored in a safe manner.

8-117 Aspirators or suction bulbs shall be used for drawing liquids into pipets. The mouth must not be used directly on the pipets.

8-118 Eye protection, that meet the American National Standards Institute 1989 Z87.1 Standard – *Practice for Occupational/Education Eye and Face Protection* must be worn by all students participating in, observing, or in close proximity to any experiment or activity which could result in eye injury. Eye protection glasses, goggles, face shields, and similar eye protection devices shall be issued clean and properly sanitized and stored in a protected place.

8-119 An easily accessible fire blanket must be provided in each laboratory or other area where an open flame is used.

8-120 Where there is exposure to skin contamination with poisonous, infectious or irritating materials, a hand washing facility shall be available.

8-121 An easily accessible operational eye wash fountain must be provided in each laboratory or other areas where corrosives or irritating chemicals are used. The eye wash fountain shall be clean and must be tested annually. The use of portable eye wash bottles as substitutes is not permitted.

8-122 An easily accessible operational safety shower, capable of providing continuous flowing water, shall be provided for each laboratory or other areas where corrosive or irritating chemicals are used. The safety shower can be centrally located so as to serve more than one area if doors are not locked, and convenient prompt access is available.

8-123 Master gas valves and electric shut-off switches shall be provided for each laboratory or areas where power equipment is used.

8-124 All emergency and safety equipment including master valves, shut off switches, eye wash fountains, safety showers, fire extinguishers (appropriate for the intended use), and fire-alarm pull stations and other similar equipment shall be tested at least once annually and labeled for high visibility.

8-125 Use of X-ray machines and other electronic devices producing ionizing or non-ionizing radiation and radioactive materials and equipment shall conform to the Colorado Department of Public Health and Environment Rules and Regulations Pertaining to Radiation Control, 6 CCR § 1007-1.

Ventilation

8-201 All areas shall be adequately ventilated so that exposures to hazardous or toxic materials are maintained to a safe level. In the absence of more stringent guidelines the American Conference of Governmental Industrial Hygienists 1989 Threshold

Limit Values and Biological Exposures Indices shall be used as a guideline to determine safe levels.

8-202 Local exhaust ventilation shall be provided so that contaminants are exhausted away from the student and not through the breathing zone.

8-203 Sufficient fume hood capacity ventilation shall be provided and shall be used for any activity producing hazardous toxic or noxious gases, mists, vapors, or dusts.

a. Hoods must exhaust directly to the outside and shall be located a minimum of 10 feet from any building air-intakes or building openings.

b. Discharges from any exhaust hood must meet applicable Colorado Air Pollution Standards.

c. A minimum face velocity of 100 feet/minute for general laboratory hoods must be provided.

d. Air flow of fume hoods must be tested at least once a school year.

Appendix A – Prohibited Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
2-Butanol (Sec-Butyl Alcohol)	C2H5CH(OH)CH3	78-92-2	0	1	3	
Acetal			0	2	3	
Acetaldehyde	CH3CHO5	75-07-0	2	3	4	
Acetyl Chloride	CH3COCl	75-36-5	2	3	3	W
Acetyl Nitrate						
Acrolein	CH2CHCHO	107-02-8	3	4	3	
Acrylic Acid	H2CCHCO2H	79-10-7	2	2	2	
Acrylonitrile	CH2CHCN	107-13-1	2	4	3	
Alcohols (Allylic, Benzylic)						
Alkly-Substituted Cycloaliphatics						
Aluminum Hydrophosphide						
Aluminum Phosphide	AlP	20859-73-	2	4	4	W
Amatol						
Ammonal						
Ammonium Bromate						
Ammonium Chlorate						
Ammonium Hexanitrocobaltate						
Ammonium Nitrite						
Ammonium Perchlorate	NH4ClO4	7790-98-9	4	1	0	OX
Ammonium Periodate						
Ammonium Permanganate			3	0	0	OX
Ammonium Tetraperoxychromate						

Appendix A – Prohibited Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Antimony Compounds						
Arsenic And Arsenic Compounds						
Azides						
Azidocarbonyl Guanidine						
Barium	Ba	2	2	1		W
Barium Chlorate	Ba(ClO3)2*H2O	13477-00-	1	2	0	OX
Barium Oxide (Anhydrous)	BaO	1304-28-5	2	3	0	
Barium Peroxide	BaO2	1304-29-6	0	1	0	OX
Benzene	C6H6	71-43-2	0	2	3	
Benzene Diazonium Chloride						
Benzotriazole	C6H5N3	95-14-7	0	2	1	
Benzoyl Peroxide	(C6H5CO)2O2	94-36-0	4	1	4	OX
Benzyl Alcohol	C6H5CH2OH	100-51-6	0	2	1	
Bismuth Nitrate	Bi(NO3)3*5H2O	10035-06-	3	1	0	OX
Borane,Boranes, Diboranes						
Boron Tribromide			2	3	0	W
Boron Trifluoride			1	4	0	
Bromine Pentafluoride	Brf5	7789-30-2	3	4	0	W,O
Bromine Trifluoride			3	4	0	W,O
Butadiene	C4H6/CH2=(CH)2=CH	106-99-0	0	2	4	
Butenetroil Trinitrate						
Cadmium and Cadmium Compounds						
Calcium Nitrate, Anhydrous	Ca(NO3)2	10124-37-	3	1	0	OX
Calcium Permanganate	Ca(MnO4)2					
Carbon Tetrachloride	CCl4	56-23-5	0	3	0	
Chloral Hydrate	CCl3CH(OH)2	302-17-0				

Appendix A – Prohibited Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Chlorine	Cl2	7782-50-5	0	4	0	OX
Chlorine Dioxide	ClO2	10049-04-				OX
Chlorine Trifluoride			3	4	0	W,O
Chlorine Trioxide						
Chloroacetylene						
Chloroform	CHCl3	67-66-3	0		2	0
Chloropicrin	CCl3NO2	76-06-2	3	4	0	
Chloroprene						
Chlorotrifluoroethylene						
Chromium (IC) Chloride	CrCl3*6H2O	10060-12-	2	1	0	
Chromium (Powder)	Cr	7440-47-3	1	2	1	
Chromyl Chloride	CrO2Cl2	14977-61-	2	3	0	W
Cobalt (Powder)	Co	7440-48-4				
Colchicine	C22H25NO6	64-86-8	0	4	1	
Copper Acetylide						
Cumene	C6H5CH(CH3)2	98-82-8	1	2	3	
Cycloheptanone	C7H12O	502-42-1	2	3		
Cyclohexanol	C6H11OH	108-93-0	1	2	2	
Cyclopentene	C5H8	142-29-0	1	1	3	
Diacetylene						
Diazidoethane						
Diazodinitrophenol						
Diazomethane	CH2N2	334-88-3				
Dicyclopentadiene	C10H12	77-73-6	1	1	3	
Diisopropyl Ether	C6H14O	108-20-3	1	2	3	
Dinitrophenol	C6H3OH(NO2)2	51-28-5				
Dioxane	C4H8O2	123-91-1	1	2	3	
Dipentaerythritol Hexanitrate						

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Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Disulfur Dinitride						
Divinyl Acetylene			3		3	
Divinyl Ether			2	2	4	
Ethyl Ether	(C2H5)2O	60-29-7A	1	1	4	
Ethyl Nitrite			4	3	4	
Ethylene Glycol Dimethyl Ether (Glyme)			0	1	2	
Ethylene Glycol Dinitrate	C2H4N2O6	628-96-6				
Ethylene Oxide	C2H4O	75-21-8	3	3	4	
Formaldehyde	CH2O	50-00-0A	0	3	2	
Furan			1	1	4	
Glycol Dinitrate	C2H4N2O6	628-96-6				
Glycol Monolactate Trinitrate						
Grignard Reagents (Ether Solvents)						
Guanyl Nitrosaminoguanyl Hydrazine						
Hexyl Alcohol	CH3(CH2)4CH2OH	111-27-3	0	1	2	
HMX			4	3		
Hydrazoic Acid						
Hydrofluoric Acid	HF	7664-39-3	0	4	0	
Hydrogen Peroxide (>30%)	H2O2	7722-84-1	1	3	0	OX
Hydrogen Peroxide (60%)	H2O2	7722-84-1	3	2	0	OX
Hydrogen Sulfide	H2S	7783-06-4	0	4	4	
Isopropyl Ether			1	1	3	
Lead Arsenate	Pb3(AsO4)2	7784-40-9	0	2	0	
Lead Dinitride (Azide)	Pb3(N3)2	13424-46-				
Lead Dinitrorescorcinate (Styphnate)			4	3	4	
Lead Dioxide, Brown	PbO2	1309-60-0	3	3	0	OX
Lead Mononitrorescorcinate						
Lithium Nitrate	LiNO3	7790-69-4	3	2	0	OX

Appendix A – Prohibited Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Lithium Nitride						
Lithium Peroxide						
Magnesium (except Mg ribbon & turnings)	Mg	7439-95-4	2	0	1	W
Magnesium Peroxide						
Mannitol Hexanitrate						
Mercury And Mercury Compounds (except in sealed devices)						
Methyl Acetylene	C3H4	74-99-7	2	2	4	
Methyl Cyclopentane	C6H12	96-37-7	0	2	3	
Methyl Isocyanate	CH3NCO	624-83-9	2	4	3	W
Methyl Methacrylate, Monomer	C5H8O2	80-62-6	2	2	3	
M-Trinitrocresol						
Nessler's Reagent (Mercury Compound)	Hg+KI+NaOH	NA26				
Nicotine	C10H14N2	54-11-5	0	4	1	
Nitroglycerin			4	2	2	
Nitrosoguanidine						
Osmic Acid	OsO4	20816-12-	0	4	0	
Osmium Tetroxide	OsO4	20816-12-	0	4	0	
O-Toluidine	C7H9N	95-53-4	0	2	3	
Pentaerythritol Tetranitrate (PETN)		78-11-5				
Perchloric Acid	HClO4	7601-90-3	3	3	0	OX
Phenol	C6H6O	108-95-2	0	4	2	
Phenyl Thiourea	C7H8N2S	103-85-5A	0	4	0	
Phosphorus Halides and Oxides						
Phosphorus, Phosphides						

Appendix A – Prohibited Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Phthalic Anhydride, Picrates, Picramide, and Picryl Compounds.	C8H4O3	85-44-9	2	3	1	
Picric Acid	C6H3N3O7	88-89-1	4	3	4	
P-Nitrophenol	NO2C6H4OH	100-02-7	2	3	1	
Polyvinyl Nitrate						
Potassium Amide						
Potassium Cyanide	KCN	151-50-8	0	3	0	
Potassium Dinitrobenzfuroxan						
Potassium Nitrite	KNO2	7758-09-0	3	2	0	OX
Potassium Perchlorate	KClO4	7778-74-7	2	1	0	
Potassium Periodate	KIO4	7790-21-8	3	2	0	OX
Potassium Peroxide	KO2	12030-88-	3	3	0	
Potassium Superoxide	KO2	12030-88-	3	3	0	
RDX		121-82-4				
Sec-Butyl Alcohol (2-Butanol)	C4H10O	78-92-2A	0	1	3	
Silanes and Chlorosilanes						
Silicon Tetrachloride			2	3	0	W
Silver Acetylide						
Silver Cyanide	AgCN	506-64-9	1	3	0	
Silver Dinitrorescorcinate (Styphnate)						
Silver Fulminate (Cyanate)	AgOCN	3315-16-0	0	1	0	
Silver Nitride						
Silver Oxalate						
Silver Tetrazene						
Sodamide	H2NNa	7782-92-5	2	2	3	W
Sodium Amide	H2NNa	7782-92-5	2	2	3	W
Sodium Arsenate	Na3AsO4*12H2O	7778-43-0	0	3	0	

Appendix A – Prohibited Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Sodium Arsenite	NaAsO2	7784-46-5	0	3	0	
Sodium Chlorate	NaClO3	7775-09-9	2	1	0	OX
Sodium Chlorite			1	1	0	OX
Sodium Cyanide	NaCN	143-33-9	1	3	0	
Sodium Dithionite	Na2S2O4	7775-14-6	2	3	1	W
Sodium Hydrosulfite	Na2S2O4*2H2O	7775-14-6	2	2	1	
Sodium Methylate	CH3ONa	124-41-4	2	3	3	W
Sodium Perborate	UNDEFINED	7632-04-4	0	3	0	
Sodium Perchlorate			2	2	0	W,O
Sodium Permanganate	NaMnO4	10101-50-	2	2	1	OX
Sodium Peroxide	Na2O2	1313-60-6	2	3	0	W,O
Strontium Perchlorate		13450-97-				
Styrene Monomer	C8H8	100-42-5	2	2	3	
Sulfur Trioxide	SO3	7446-11-9	2	3	0	W
Sulfuryl Chloride (Sulfonyl)	Cl2O2S	7791-25-5	2	3	0	W
Sulfuryl Chloride Fluoride	ClFO2S	13637-84-	2	3	1	W
T-Butyl Hypochlorite						
Tetrafluoroethylene			3	2	4	
Tetrahydrofuran	C4H8O	109-99-9	1	2	3	
Tetrahydronaphthalene	C10H12	119-64-2	0	1	2	
Tetranitromethane		509-14-8				
Tetraselenium						
Tetranitride						
Tetrazene						
Tetryl		479-45-8	4	2	2	
Thallium Nitride						
Thermit	Fe2O3 + Al	69012-31-	0	0	0	

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Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Thermite Igniting Mixture Thiocarbonyl	Al	Unknown	1	0	1	
Tetrachloride	CCl4S	594-42-3	2	3	0	
Thionyl Chloride	SOCl2	7719-09-7	2	4	0	W
Titanium (Powder)	Ti	7440-32-6	2	1	1	
Titanium Tetrachloride			2	3	0	
Triethyl Aluminum		97-93-8				
Triethyl Arsine						
Triisobutyl Aluminum		100-99-2				
Trimethyl Aluminum		75-24-1				
Trinitroanisole						
Trinitrobenzene			4	2	4	
Trinitrobenzoic Acid						
Trinitronaphthalene						
Trinitroresorcinol						
Trinitrotoluene	C7H5N3O6	118-96-7	4	2	4	
Trisilyl Arsine						
Uranium Compounds						
Uranyl Acetate	UO2(C2H3O2)2	541-09-3	0	0	0	
Uranyl Nitrate	UO2(NO3)2.6H2O	10102-06-	0	1	0	
Urea Nitrate						
Vinyl Acetate	C4H6O2	108-05-4	2	2	3	
Vinyl Acetylene			3	2	4	
Vinyl Chloride	C2H3Cl	75-01-4	2	2	4	
Vinyl Ethers			2	2	4	
Vinylidene Chloride (1,1-DCE)	C2H2Cl2	75-35-4	2	2	4	
Zinc Peroxide						

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
2-Butanone (MEK)	CH3COC2H5	78-93-3A	0	1	3	
Acetamide	CH3CONH2	60-35-5	1	3	1	
Acetanilide	CH3CONHC6H5	103-84-4	0	3	1	
Acetic Acid	CH3COOH	64-19-7A	1	2	2	
Acetic Anhydride	(CH3CO)2O	108-24-7	1	3	2	W
Acetone	CH3COCH3	67-64-1	0	1	3	
Acetyl Halides						
Acetylcholine Bromide	CH3CO2C2H4N(C	66-23-9	0	2	0	
Acridine Orange	UNDEFINED	10127-02-	0	2	0	
Adipoyl Chloride	ClOC(CH2)4COCl	111-50-2	0	2	2	
Alizarin Red	UNDEFINED	130-22-3	0	2	1	
Alkyl Aluminum Chloride						
Aluminum	Al	7429-90-5	1	0	1	
Aluminum Acetate	Al(C2H3O2)2OH	142-03-0	1	1	0	
Aluminum Bromide	AlBr3	7727-15-3	1	3	1	
Aluminum Chloride, Hydrate	ALCL3*6H2O	7784-13-6	0	3	0	
Aluminum Fluoride	AlF3	7784-18-1	0	2	0	
Aluminum Hydroxide	Al(OH)3*3H2O	21645-51-	1	1	0	
Aluminum Nitrate	Al(NO3)3*9H2O	7784-27-2	0	1	0	OX
Aluminum Tetrahydroborate						

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Ammonia, Anhydrous (use restrictions)	NH3	7664-41-7	0	3	1	
Ammonia, Liquid	NH3	1336-21-6	0	3	1	
Ammonium Acetate	NH4C2H3O2	631-61-8	1	1	1	
Ammonium Bicarbonate	NH4HCO3	1066-33-7	1	1	0	
Ammonium Bichromate	(NH4)2Cr2O7	7789-09-5	1	1	1	OX
Ammonium Bromide	NH4Br	12124-97-	0	2	0	
Ammonium Carbonate	NH4CO3	10361-29-	2	2	0	
Ammonium Chloride	NH4Cl	12125-02-	0	2	0	
Ammonium Chromate	(NH4)2CrO4	7788-98-9	1	1	1	OX
Ammonium Fluoride	NH4F	12125-01-	0	3	0	
Ammonium Hydroxide	NH4OH	1336-21-6	0	3	1	
Ammonium Iodide	NH4I	12027-06-	1	2	0	
Ammonium Molybdate	(NH4)6Mo7O24*4H	12054-85-	1	2	0	
Ammonium Nitrate (500 g limit)	NH4NO3	6484-52-2	3	0	0	OX
Ammonium Oxalate	(NH4)2C2O4*H2O	6009-70-7	1	3	0	
Ammonium Phosphate, Dibasic	(NH4)2H2PO4	7783-28-0	1	2	0	
Ammonium Phosphate, Monobasic	NH4H2PO4	7722-76-1	0	2	0	
Ammonium Sulfate	(NH4)2SO4	7783-20-2	0	3	0	
Ammonium Sulfide	(NH4)2S*H2O	12135-76-	0	3	3	

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Ammonium Tartrate	(NH4)2C4H4O6	3164-29-2	0	2	0	
Ammonium Thiocyanate	NH4SCN	1762-95-4	1	2	1	
Amyl Acetate	CH3COOC5H11	628-63-7	0	1	3	
Amyl Alcohol(N)	CH3(CH2)3CH2OH	71-41-0A	0	1	3	
Aniline	C6H5NH2	62-53-3	0	3	2	
Aniline Hydrochloride	C6H5NH2*HCL	142-04-1	3	1		
Anisoyl Chloride	C8H7ClO2	100-07-2	0	3	2	
Barium Acetate	Ba(C2H3O2)H20	543-80-6	0	2	0	
Barium Carbide						
Barium Chloride,						
Hydrate	BaCl2*2H2O	10326-27-	0	3	0	
Barium Nitrate	Ba(NO3)2	10022-31-	0	1	0	OX
Benzaldehyde	C6H5CHO	100-52-7	0	2	2	
Benzene Phosphorus Dichloride						
Benzoic Acid	C6H5COOH	65-85-0	2	1		
Benzyl Chloride	C6H5CH2Cl	100-44-7	1	3	2	
Benzyl Sodium						
Benzylamine	C6H5CH2NH2	100-46-9	0	3	2	
Beryllium Tetrahydroborate						
Biphenyl (Diphenyl)	C6H5C6H5	92-52-4	0	2	1	
Bismuth Pentafluoride	BiF5	7787-62-4	0	1	0	
Boric Acid	H3BO3	10043-35-	0	2	0	

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Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Boron Bromodiiodide						
Boron Dibromoiodide						
Boron Phosphide						
Boron Trichloride						
Bromine Monofluoride						
Bromine Water	Br2 + H2O	7726-95-6				OX
Bromobenzene	C6H5Br	108-86-1	0	2	2	
Bromodiethylaluminum						
Bromoform	CHBr3	75-25-2	0	3	0	
Butanol (N-Butyl Alcohol)	CH3(CH2)3OH	71-36-3	0	1	3	
Butyric Acid	CH3CH2CH2COH	107-92-6	0	3	2	
Calcium (100 g limit)	Ca	7440-70-2	2	3	1	W
Calcium Bromide	CaBr2	7789-41-5	1	1	0	
Calcium Hypochlorite	Ca(OCl)2	7778-54-3	1	3	0	OX
Calcium Nitrate Tetrahydrate	Ca(NO3)2*4H2O	13477-34-	1	2	0	OX
Calcium Phosphide						
Camphor (+/-)	C10H16O	21368-68-	0	0	2	
Carbon Disulfide (BI)	CS2	75-15-0	0	2	3	
Ceric (IV) Sulfate	Ce(SO4)2*4H2O	13590-82-	0	3	0	OX

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Cesium Amide						
Cesium Phosphide						
Chlorine Monofluoride						
Chlorine Pentafluoride						
Chloroacetic Acid	C2H3ClO2	79-11-8B	0	3	1	
Chloroacetyl Chloride	C2H2Cl2O/ClCH2C	79-04-9	1	3	0	
Chlorobenzene	C6H5Cl	108-90-7	0	2	3	
Chlorodiisobutyl Aluminum						
Chlorophenyl Isocyanate	C7H4ClNO	3320-83-0				
Chromic Acid	CrO3	1333-82-0	1	3	0	OX
Chromium (IC) Nitrate	Cr(NO3)3*9H2O	7789-02-8	1	3	0	OX
Chromium Sulfate	Cr2(SO4)3*nH2O	10101-53-	0	2	0	
Chromium Trioxide	CrO3	1333-82-0	1	3	0	
Cobalt (ous) Nitrate	Co(NO3)2*6H2O	10026-22-	0	2	0	OX
Cupric Bromide, Anhydrous	CuBr2	7789-45-9	0	2	0	
Cyclohexane	CH2(CH2)4CH2	110-82-7	0	1	3	
Dichlorobenzene	C6H4Cl2	106-46-7B	0	2	2	
Dichloroethane	C2H4Cl2	107-06-2B	0	2	3	
Dichloromethane	CH2Cl2	75-09-2A	0	2	1	

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Diethyl Aluminum Chloride	C4H10AlCl	96-10-6				
Diethyl Zinc	C4H10Zn	557-20-0				
Diisopropyl Beryllium						
Dimethyl Magnesium						
Diphenyl Diisocyanate						
Diphenylamine	(C6H5)2NH	122-39-4	0	3	1	
Ethanol	C2H5OH	64-17-5B	0	0	3	
Ethyl Acetate	CH3COOC2H5	141-78-6	0	1	3	
Ethyl Alcohol	C2H5OH	64-17-5A	0	0	3	
Ethyl Methacrylate	CH2CCH3COOC2	97-63-2	0	2	3	
Ethylene Dichloride	C2H4Cl2	107-06-2A	0	2	3	
Ethylenediamine	NH2CH2CH2NH2	107-15-3	0	3	2	
Faa Solution	UNDEFINED	NA14	0	2	3	
Fehlings Solution A	UNDEFINED	7758-99-8	1	3	0	
Fehlings Solution B	UNDEFINED	NA15	1	3	0	
Ferric Chloride, Anhydrous	FeCl3	7705-08-0	1	3	0	
Ferric Nitrate	Fe(NO3)3*9H2O	7782-61-8	1	1	0	OX
Fluorine Monoxide						
Fluorosulfonic Acid						

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Formalin	CH2O	50-00-0B	0	2	2	
Formic Acid	HCOOH	64-18-6	0	3	2	
Gasoline	UNDEFINED	8006-61-9	0	1	3	
Glutaraldehyde	OCH(CH3)3CHO	111-30-8	1	3	0	
Gold Acetylide						
Hematoxylin	C16H14O6*3H2O	517-28-2	1	1	0	
Heptane, N-	CH3(CH2)5CH3	142-82-5	0	1	3	
Hexamethylene Diisocyanate	C8H12N2O2	822-06-0	0	1	2	W
Hexamethylenediamine	H2N(CH2)6NH2	124-09-4	0	3	2	
Hexane, N-	CH3(CH2)4CH3	110-54-3	0	1	3	
Hydriodic Acid	HI	10034-85-	0	3	0	
Hydrobromic Acid	HBr	10035-10-	0	3	0	
Hydrochloric Acid	HCl	7647-01-0	0	3	0	
Hydrogen Peroxide (30% or less)	H2O2		1	3	0	OX
Hydroquinone	C6H4(OH)2	123-31-9	0	2	1	
Hydroxylamine Hydrochloride	NH2OH*HCl	5470-11-1	1	3	1	
Iodine	I2	7553-56-2	1	3	0	OX
Iodine Monochloride	ICl	7790-99-0	1	3	0	

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Iron	Fe	7439-89-6	1	3	1	
Isoamyl Alcohol	(CH3)2CHCH2CH2	123-51-3A	0	1	2	
Isobutyl Alcohol	(CH3)2CHCH2OH	78-83-1	0	1	3	
Isopentyl Alcohol	(CH3)2CHCH2CH2	123-51-36	0	1	3	
Isopropyl Alcohol	(CH3)2CHOH	67-63-0	0	1	3	
Kerosene	UNDEFINED	8008-20-6	0	0	2	
Lead Nitrate	Pb(NO3)2	10099-74-	0	1	0	OX
Lead Oxide, Red	Pb3O4	1314-41-6	1	3	1	OX
Lead Peroxide (DI)	PbO2	1309-60-0	1	3	0	OX
Lithium Amide						
Lithium Bromide	LiBr	7550-35-8	0	2	0	
Lithium Ferrosilicon						
Lithium Silicon						
Lithium Sulfate	Li2SO4*H2O	10102-25-	0	2	0	
Lye	NaOH	1310-73-2	1	3	0	
Magnesium (ribbon)	Mg	7439-95-4	2	0	1	W
Magnesium Nitrate	Mg(NO3)2*6H2O	13446-18-	0	1	0	OX
Manganese Carbonate	MnCO3	598-62-9	1	0	0	
Manganese Dioxide	MnO2	1313-13-9	1	2	0	OX
Manganese Nitrate (ous)	Mn(NO3)2*6H2O	10377-66-	0	3	0	OX

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Manganese Oxide	MnO2	1313-13-9	0	1	0	
Methyl Alcohol	CH3OH	67-56-1	0	1	3	
Methyl Aluminum Sesquibromide		C3H9Al2Br3				
Methyl Aluminum Sesquichloride	C3H9Al2Cl3	12542-85-				
Methyl Ethyl Ketone (MEK)	CH3COC2H5	78-93-3B	0	1	3	
Methyl Magnesium Bromide	CH3BrMg	75-16-1				
Methyl Magnesium Chloride	CH3ClMg	676-58-4				
Methyl Magnesium Iodide	CH3IMg					
Methylene Chloride	CH2CL2	75-09-2B	0	2	1	
Naphthalene	C10H8	91-20-3	0	2	2	
Napthol-1 (A)	C10H7OH	90-15-3	1	3	1	
N-Butyl Alcohol	C6H10O	71-36-3B	0	1	3	
N-Butyl Lithium						
Nickel Antimonide						
Nickel(II) Nitrate	Ni(NO3)2*6H2O	13478-00-	1	2	0	
Nickel(II) Sulfate	NiSO4*6H2O	10101-97-	0	2	0	
Nitric Acid	HNO3	7697-37-2	0	3	0	OX
Nitrobenzene	C6H5NO2	98-95-3	1	3	2	
Nitrogen	N2	7727-37-9	0	3	0	

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Octyl Alcohol	CH3(CH2)6CH2OH	111-87-5	0	1	2	
O-Dichlorobenzene	C6H4Cl2	95-50-1	0	2	2	
Oxalic Acid, Hydrate	H2C2O4*2H2O	6153-56-6	0	2	1	
Oxygen	O2	7782-44-7	0	3	0	OX
P-Dichlorobenzene	C6H4Cl2	106-46-7	0	2	2	
Pentyl Alcohol (Amyl)	CH3(CH2)4OH	71-41-0B	0	1	3	
Petroleum Ether (500 ml limit)	UNDEFINED	8032-32-4	0	1	4	
Phosphoric Acid	H3PO4	7664-38-2	0	3	0	
Phthalic Acid	C6H4(COOH)2	88-99-3	1	0	1	
Polyphenyl Polymethyl Isouanta						
Polyvinyl Alcohol	CH2CH(OH)	9002-89-5	0	0	2	
Potassium Bromate	KBrO3	7758-01-2	0	2	0	OXPotassium
Chromate	K2CrO4	7789-00-6	1	3	0	OX
Potassium Dichromate	K2Cr2O7	7778-50-9	1	3	1	OX
Potassium Ferricyanide	K3Fe(CN)6	13746-66-	1	1	0	
Potassium Ferrocyanide	K4Fe(CN)6*3H2O	14459-95-	1	1	0	
Potassium Hydroxide	KOH	1310-58-3	1	3	0	
Potassium Iodate	KIO3	7758-05-6	1	1	0	OX
Potassium Nitrate	KNO3	7757-79-1	0	1	0	OX

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Potassium Permanganate	KMnO4	7722-64-7	0	1	0	OX
Potassium Persulfate	K2S2O8	7727-21-1	0	1	0	OX
Potassium Sulfide	K2S	1312-73-8	0	3	1	
Propane (use restrictions)	CH3CH2CH3	74-98-6	0	1	4	
Propionic Acid	C3H6O2	79-09-4	0	2	2	
Propyl Alcohol	C3H8O	71-23-8	0	1	3	
Pyridine	C5H5N	110-86-1	0	3	3	
Pyrosulfuryl Chloride						
Silver Nitrate	AgNO3	7761-88-8	0	1	0	OX
Silver Sulfate	Ag2SO4	10294-26-	0	2	0	
Sodium Bisulfite	NaHSO3	7631-90-5	1	1	0	
Sodium Chromate	Na2CrO4	7775-11-3	1	3	0	OX
Sodium Cobaltinitrite	Na3Co(NO2)6	13600-98-	0	2	0	OX
Sodium Dichromate, Hydrate	Na2Cr2O7*2H2O	7789-12-0	1	1	0	
Sodium Fluoride	NaF	7681-49-4	0	3	0	
Sodium Hydroxide	NaOH	1310-73-2	1	3	0	
Sodium Hypochlorite	NaClO	7681-52-9	1	2	0	
Sodium Iodate	NaIO3	7681-55-2	1	1	0	OX
Sodium Iodide	NaI	7681-82-5	1	2	0	

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Sodium Meta-Bisulfite	Na2S2O5	7681-57-4	1	3	0	
Sodium Nitrate	NaNO3	7631-99-4	1	1	0	OX
Sodium Nitrite	NaNO2	7632-00-0	1	2	0	OX
Sodium Phosphate, Tribasic	Na3PO4*12H2O	7601-54-9	1	2	0	
Sodium Potassium Alloy						
Sodium Sulfide	Na2S*9H2O	1313-84-4	1	3	1	
Sodium Thiocyanate	NaSCN	540-72-7	1	3	0	
Sodium Thiosulfate	Na2S2O3*5H2O	10102-17-	1	0	0	
Stannic Chloride	SnCl4	7646-78-8	1	3	0	
Strontium Nitrate	Sr(NO3)2	10042-76-	0	1	0	OX
Sulfur Chloride	Cl2S2	10025-67-	1	2	1	
Sulfur Pentafluoride						
Sulfuric Acid (<10%)	H2SO4	7664-93-9	0	3	0	
Sulfuric Acid (>10%) (2.5 l limit)	H2SO4	7664-93-9	2	3	0	W
T-Butanol	(CH3)3COH	75-65-0	0	1	3	
Terpineol	C10H17OH	98-55-5	0	0	2	
Thiophosphoryl Chloride	Cl3SP	3982-91-0	0	3	0	
Tin	Sn	7440-31-5	1	1	1	
Toluene	C7H8	108-88-3	0	2	3	

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Toluene Diisocyanate	C9H6N2O2	584-84-9	1	3	1	
Toluidine Blue	CH3C6H4NH2	95-53-4	0	3	2	
Trichloroethane-1,1,1	C2H3Cl3	71-55-6	1	3	1	
Trichloroethylene	C2HCl3	79-01-6	0	2	1	
Triethanolamine	C6H15NO3	102-71-6	1	2	1	
Triethyl Stibine						
Trimethylpentane 2,2,4	C8H18	540-84-1	0	0	3	
Tri-N-Butyl Aluminum						
Trioctyl Aluminum						
Triphenyl Tetrazolium Chloride	C19H15N4Cl	298-96-4	1	2	1	
Tripropyl Stibine						
Trisodium Phosphate	Na3H3PO4	7601-54-9	1	2	0	
Trivinyl Stibine						
Tungsten	W	7440-33-7	1	1	2	
Turpentine	C10H16	8006-64-2	0	1	3	
Vanadium Trichloride	VCl3	7718-98-1				
Xylene	C8H10	1330-20-7	0	2	3	
Zinc (Powder)	Zn	7440-66-6	1	1	1	W
Zinc Acetylide						

Appendix B – Restricted Chemicals

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Zinc Nitrate (500 g limit)	Zn(NO3)2*6H2O	10196-18-	2	1	1	OX
Zinc Phosphide	Zn3P2	1314-84-7	1	3	3	

Appendix B2 – Restricted Chemicals (Demonstration Use Only)

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Aluminum Chloride, Anhydrous (25 g limit)	AlCl3	7446-70-0	2	3	0	W
Ammonium Dichromate (100 g limit)	(NH4)2Cr2O7	7789-09-5	3	4	1	OX
Ammonium Persulfate (100 g limit)	(NH4)2S2O8	7727-54-0	3	2	0	OX
Antimony Metal (50 g limit)	Sb	7440-36-0				
Bromine (3 - 1 g ampules limit)	Br2	7726-95-6	0	4	0	OX
Calcium Carbide (100 g limit)	CaC2	75-20-7	2	1	3	W
Chromium Oxide (20 g limit)	Cr2O3	1308-38-9	3	4	0	OX
*Collodion (100 ml limit)	C25H33O13(NO3)7	9004-70-0	0	1	4	
*Cyclohexanone (100 ml limit)	C6H10O	108-94-1	0	1	2	
*Cyclohexene (100 ml limit)	C6H10	110-83-8	0	1	3	
*Cyclopentanone (100 ml limit)	C5H8O	120-92-3	0	2	3	
*Diethyl Ether (500 ml limit)	(C2H5)2O	60-29-7B	1	2	4	
*Diglyme (500 ml limit)	(CH3O)CH2	111-96-6	1	1	2	
Dinitrophenylhydrazine (100 g limit)	C6H6N4O4	119-26-6	2	1	2	
Hydrides, Borohydrides (100 g limit)						

Appendix B2 – Restricted Chemicals (Demonstration Use Only)

Name	Formula	CAS #	NFPA Reactive	NFPA Health	NFPA Flammable	NFPA Special
Hydrogen (limited to 2 cu ft lecture bottle)	H2	1333-74-0	0	0	4	
Lithium (20 g limit)	Li	7439-93-2	2	1	1	W
Magnesium (turnings) (100 g limit)	Mg	7439-95-4	2	0	1	W
*Methyl Isobutyl Ketone (MIBK) (250 ml limit)	CH3COCH2CH(CH)	108-10-1	1	2	3	
Pentane (100 ml limit)	C5H12	109-66-0	0	1	4	
Phosphorus, Red (Amorphous) (50 g limit)	P	7723-14-0	1	1	1	W
Potassium (1- bottle w/5 demonstration-size pieces)	K	7440-09-7	2	3	1	W
Potassium Chlorate (100 g limit)	KClO3	3811-04-9	0	2	0	OX
Silver Oxide (100 g limit)	Ag2O	20667-12-	2	1	1	OX
Sodium (100 g limit)	Na	7440-23-5	2	3	3	W
Wright's Stain (HG Containing) (100 ml limit)	Undefined	68988-92-	0	0	3	

(*) Indicates those compounds that have peroxide forming potential that must be addressed in the written chemical management plan.