



# COLORADO

## Division of Environmental Health & Sustainability

Department of Public Health & Environment

### Combined Prohibited and Restricted Chemical Lists

This document is a combined and alphabetized list of the Prohibited and Restricted Chemicals as defined and listed in the Rules and Regulations Governing Schools in the State of Colorado, 6 CCR 1010-6, Appendices A, B, and B2. This combined list can be used as a supplement to the Rules and Regulations and as a quick reference format when conducting such activities as a chemical inventory or during the chemical procurement process.

Shelf life descriptions are provided for each chemical to assist in evaluating a timeframe for safe chemical use and storage. In general, chemical shelf life descriptions are as follows: **POOR** - less than 1 year; **FAIR** - 1 to 3 years; **GOOD** - 3 to 5 years; and **EXCELLENT** or **INDEFINITE** - greater than 5 years. Additional oversight for chemicals with a shelf life of less than 3 years is important to ensure that they are not stored or used past their shelf life or expiration date, at which point they may become unstable and dangerous. Completion of Table 2 on the Restricted Chemical Variance Application Form is required for any chemicals with a shelf life of less than 3 years and/or those chemicals that are known to have issues with container integrity or other hazards associated with their use and storage in a school environment. Please see "Limited Shelf Life - Table 2 Required?" column on this list before completing the variance application form.

Please note that the hazard information and shelf life descriptions provided for the listed chemicals is not intended to address all safety concerns. Before attempting to work with any new chemical, review and comply with information provided on the Safety Data Sheet (SDS).

In addition to this document, please refer to the Rules and Regulations Governing Schools in the State of Colorado, 6 CCR 1010-6, available at <https://www.colorado.gov/pacific/cdphe/colorado-health-safety-regulations-schools>.

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited	Storage
1-Naphthol (alpha Naphthol)	Restricted	C10H7OH	90-15-3	toxic	Indefinite	NO	NA
2,2,4-Trimethylpentane	Restricted	C8H18	540-84-1	highly flammable; toxic	Limited; refer to	YES	O-3 Flam Cabinet
2-Butanol (sec-Butyl Alcohol)	<b>PROHIBITED</b>	C2H5CH(OH)CH3	78-92-2	may form explosive peroxides upon	NA	NA	O-2 Flam Cabinet
2-Butanone (Methyl Ethyl	Restricted	CH3COC2H5	78-93-3	highly flammable; may form explosive	Good	NO	O-4 Flam Cabinet
2-Chlorophenyl Isocyanate	Restricted	C7H4ClNO	3320-83-0	poison; highly flammable	Fair	YES	NA
Acetal (1,1-Diethoxyethane)	<b>PROHIBITED</b>	C6H14O2	105-57-7	may form explosive peroxides upon	NA	NA	O-4 Flam Cabinet
Acetaldehyde (Ethanal)	<b>PROHIBITED</b>	CH3CHO	75-07-0	may form explosive peroxides upon	NA	NA	O-3 Flam Cabinet
Acetamide	Restricted	CH3CONH2	60-35-5	possibly carcinogenic to humans	Poor; deliquescent	YES	O-2 Flam Cabinet

Acetanilide (n-	Restricted	CH3CONHC6H5	103-84-4	combustible; irritant	Indefinite	NO	O-2 Flam Cabinet
Acetic Acid	Restricted	CH3COOH	64-19-7	flammable; corrosive	Good	NO	O-1 Flam Cabinet
Acetic Anhydride	Restricted	(CH3CO)2O	108-24-7	water-reactive; corrosive; flammable	Good	NO	O-1 Flam Cabinet
Acetone	Restricted	CH3COCH3	67-64-1	highly flammable; inhalation hazard	Good	NO	O-4 Flam Cabinet
Acetyl Halides (e.g., Acetyl	<b>PROHIBITED</b>			respiratory irritant, toxic; violent	NA	NA	O-4 Acid Cabinet
Acetyl Nitrate	<b>PROHIBITED</b>	CH3CONO3	591-09-3	shock sensitive	NA	NA	NA
Acetylcholine Bromide	Restricted	C7H16BrNO2	66-23-9	toxic; irritant	Good	NO	O-9
Acridine Orange	Restricted	C17H19N3	10127-02-3	irritant	Fair (48 months)	YES	O-9
Acrolein	<b>PROHIBITED</b>	CH2CHCHO	107-02-8	flammable and reactive; may be fatal if	NA	NA	O-3 Flam Cabinet
Acrylic Acid (Propenoic Acid)	<b>PROHIBITED</b>	H2CCHCO2H	79-10-7	may form explosive peroxides; reactive;	NA	NA	O-1 Flam Cabinet
Acrylonitrile	<b>PROHIBITED</b>	CH2CHCN	107-13-1	may form explosive peroxides; possibly	NA	NA	O-7 Flam Cabinet
Adipoyl Chloride	Restricted	ClOC(CH2)4COCl	111-50-2	corrosive	Poor	YES	O-1
Alcohols (Allylic, Benzyl)	<b>PROHIBITED</b>			may form explosive peroxides upon	NA	NA	O-2 Flam Cabinet
Alizarin Red	Restricted	C14H7NaO7S	130-22-3	toxic	Indefinite	NO	O-9
Alkyl Aluminum Chloride	Restricted	Unavailable	Unavailable	water reactive	Poor; deliquescent	YES	NA
Alkyl-Substituted	<b>PROHIBITED</b>			may form explosive peroxides upon	NA	NA	O-3 Flam Cabinet
Aluminum (Powder)	Restricted	Al	7429-90-5	water-reactive; strong reducing agent;	Indefinite	NO	I-1
Aluminum Acetate	Restricted	Al(C2H3O2)2OH	142-03-0	toxic	Good	NO	NA
Aluminum Bromide	Restricted	AlBr3	7727-15-3	air- and water-reactive; corrosive	Fair	YES	I-2
Aluminum Chloride	Restricted	AlCl3·6H2O	7784-13-6	water-reactive; corrosive	Poor; deliquescent	YES	I-2
Aluminum Chloride,	<b>DEMO ONLY</b>	AlCl3	7446-70-0	air-and water-reactive; fumes in moist	Good	NO	I-2
Aluminum Fluoride	Restricted	AlF3	7784-18-1	water-reactive; corrosive; inhalation	Fair	YES	I-2
Aluminum Hydroxide	Restricted	Al(OH)3	21645-51-2	possibly toxic	Indefinite	NO	I-4 Base Cabinet
Aluminum Nitrate	Restricted	Al(NO3)3·9H2O	7784-27-2	strong oxidizer	Indefinite	NO	I-3
Aluminum Phosphide	<b>PROHIBITED</b>	AlP	20859-73-8	water-reactive; generates poisonous and	NA	NA	I-5
Aluminum Tetrahydroborate	Restricted	Al(BH4)3	16962-07-5	poison; air- and water-reactive;	Fair	YES	I-1 Flam Cabinet
Amatol (TNT and Ammonium	<b>PROHIBITED</b>			explosive	NA	NA	NA
Ammonal (TNT, Ammonium	<b>PROHIBITED</b>			explosive	NA	NA	NA
Ammonia Solutions in Water	Restricted	NH3	7664-41-7	corrosive; reactive; toxic	Indefinite	NO	I-4 Base Cabinet
Ammonia, Anhydrous	Restricted	NH3	7664-41-7	poison; water-reactive; inhalation	Indefinite	NO	Gas - Poison
Ammonium Acetate	Restricted	NH4C2H3O2	631-61-8	inhalation hazard; irritant	Poor; deliquescent	YES	I-2
Ammonium Bicarbonate	Restricted	NH4HCO3	1066-33-7	inhalation hazard; irritant	Good	NO	I-4
Ammonium Bromate	<b>PROHIBITED</b>	NH4BrO3	13843-59-9	shock sensitive	NA	NA	I-6
Ammonium Bromide	Restricted	NH4Br	12124-97-9	inhalation hazard; irritant	Fair to poor;	YES	I-2
Ammonium Carbonate	Restricted	NH4CO3	10361-29-2	inhalation hazard; irritant	Indefinite	NO	I-4
Ammonium Chlorate	<b>PROHIBITED</b>	NH4ClO3	10192-29-7	strong oxidizer; explosive	NA	NA	I-6
Ammonium Chloride	Restricted	NH4Cl	12125-02-9	toxic; inhalation hazard; irritant	Fair to poor;	YES	I-2
Ammonium Chromate	Restricted	(NH4)2CrO4	7788-98-9	chromium (VI) compounds are	Indefinite	NO	I-8
Ammonium Dichromate (100	<b>DEMO ONLY</b>	(NH4)2Cr2O7	7789-09-5	oxidizer; chromium (VI) compounds	Fair	YES	I-8
Ammonium Fluoride	Restricted	NH4F	12125-01-8	corrosive; toxic	Fair to poor;	YES	I-2

Ammonium	<b>PROHIBITED</b>	NH <sub>3</sub> Co(NO <sub>2</sub> ) <sub>6</sub>	13600-98-1	explosive	NA	NA	NA
Ammonium Hydroxide	Restricted	NH <sub>4</sub> OH	1336-21-6	inhalation hazard; severely corrosive	Indefinite	NO	I-4 Base Cabinet
Ammonium Iodide	Restricted	NH <sub>4</sub> I	12027-06-4	inhalation hazard	Fair to poor;	YES	I-2
Ammonium Molybdate	Restricted	(NH <sub>4</sub> ) <sub>6</sub> Mo <sub>7</sub> O <sub>24</sub> ·4H <sub>2</sub> O	12054-85-2	toxic	Indefinite	NO	I-8
Ammonium Nitrate (500 g)	Restricted	NH <sub>4</sub> NO <sub>3</sub>	6484-52-2	shock sensitive; oxidizer	Poor; very	YES	I-3 Separate from
Ammonium Nitrite	<b>PROHIBITED</b>	NH <sub>4</sub> NO <sub>2</sub>	13446-48-5	explosive	NA	NA	NA
Ammonium Oxalate	Restricted	(NH <sub>4</sub> ) <sub>2</sub> C <sub>2</sub> O <sub>4</sub> ·H <sub>2</sub> O	6009-70-7	corrosive; toxic	Indefinite	NO	I-2
Ammonium Perchlorate	<b>PROHIBITED</b>	NH <sub>4</sub> ClO <sub>4</sub>	7790-98-9	strong oxidizer; explosive; irritant	NA	NA	I-6
Ammonium Periodate	<b>PROHIBITED</b>	NH <sub>4</sub> IO <sub>4</sub>	13446-11-2	strong oxidizer; explosive; irritant;	NA	NA	NA
Ammonium Permanganate	<b>PROHIBITED</b>	NH <sub>4</sub> MnO <sub>4</sub>	13446-10-1	explosive	NA	NA	I-8
Ammonium Persulfate (100 g)	<b>DEMO ONLY</b>	(NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	7727-54-0	strong oxidizer; explosion hazard	Indefinite	NO	I-6
Ammonium Phosphate,	Restricted	(NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub>	7783-28-0	respiratory hazard; potential for skin and	Indefinite	NO	I-2
Ammonium Phosphate,	Restricted	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>	7722-76-1	respiratory hazard; potential for skin and	Indefinite	NO	I-2
Ammonium Sulfate	Restricted	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	7783-20-2	respiratory hazard	Indefinite	NO	I-2
Ammonium Sulfide	Restricted	(NH <sub>4</sub> ) <sub>2</sub> S	12135-76-1	respiratory hazard; corrosive; poison;	Good	NO	I-5
Ammonium Tartrate	Restricted	(NH <sub>4</sub> ) <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub>	3164-29-2	irritant	Fair	YES	I-2
Ammonium	<b>PROHIBITED</b>	(NH <sub>4</sub> ) <sub>3</sub> CrO <sub>8</sub>		explosive	NA	NA	NA
Ammonium Thiocyanate	Restricted	NH <sub>4</sub> SCN	1762-95-4	inhalation hazard; strong reducing agent	Poor; deliquescent	YES	I-7
Amyl Acetate	Restricted	CH <sub>3</sub> COOC <sub>5</sub> H <sub>11</sub>	628-63-7	flammable; toxic	Good	NO	O-3 Flam Cabinet
Aniline	Restricted	C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub>	62-53-3	acutely toxic	Poor	YES	O-2
Aniline Hydrochloride	Restricted	C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub> ·HCl	142-04-1	corrosive; acutely toxic	Poor	YES	O-2
Anisoyl Chloride	Restricted	C <sub>8</sub> H <sub>7</sub> ClO <sub>2</sub>	100-07-2	air- and water- reactive; corrosive;	Fair	YES	I-2
Antimony Compounds (e.g.,	<b>PROHIBITED</b>			dust fire and explosion hazard; poison;	NA	NA	I-2
Antimony Metal (50 g limit)	<b>DEMO ONLY</b>	Sb	7440-36-0	poison; combustible powder; strong	Indefinite	NO	I-1
Arsenic and Arsenic	<b>PROHIBITED</b>			carcinogenic to humans; poison	NA	NA	I-4
Azide Compounds (e.g.,	<b>PROHIBITED</b>			acutely toxic; shock sensitive; explosive	NA	NA	I-3
Azidocarbonyl Guanidine	<b>PROHIBITED</b>	C <sub>2</sub> H <sub>4</sub> N <sub>6</sub> O	54567-24-7	shock sensitive, explosive	NA	NA	NA
Barium	<b>PROHIBITED</b>	Ba	7440-39-3	water-reactive; may ignite on contact	NA	NA	I-1
Barium Acetate	Restricted	Ba(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>	543-80-6	acutely toxic	Indefinite	NO	I-2
Barium Carbide	Restricted	BaC <sub>2</sub>	50813-65-5	water-reactive; toxic	Fair	YES	I-5
Barium Chlorate	<b>PROHIBITED</b>	Ba(ClO <sub>3</sub> ) <sub>2</sub> ·H <sub>2</sub> O	13477-00-4	explosive; strong oxidizer; toxic	NA	NA	I-6
Barium Chloride, Dihydrate	Restricted	BaCl <sub>2</sub> ·2H <sub>2</sub> O	10326-27-9	poison; acutely toxic	Indefinite	NO	I-2
Barium Nitrate	Restricted	Ba(NO <sub>3</sub> ) <sub>2</sub>	10022-31-8	oxidizer; toxic	Indefinite	NO	I-3
Barium Oxide (Anhydrous)	<b>PROHIBITED</b>	BaO	1304-28-5	poison; water-reactive	NA	NA	I-4
Barium Peroxide	<b>PROHIBITED</b>	BaO <sub>2</sub>	1304-29-6	poison; water-reactive; oxidizer	NA	NA	I-6
Benzaldehyde	Restricted	C <sub>6</sub> H <sub>5</sub> CHO	100-52-7	combustible	Fair	YES	O-3 Flam Cabinet
Benzene	<b>PROHIBITED</b>	C <sub>6</sub> H <sub>6</sub>	71-43-2	carcinogenic to humans; flammable	NA	NA	O-3 Flam Cabinet
Benzene Diazonium Chloride	<b>PROHIBITED</b>	C <sub>6</sub> H <sub>5</sub> CIN <sub>2</sub>	100-34-5	explosive	NA	NA	O-6
Benzene Phosphorus	Restricted	C <sub>6</sub> H <sub>5</sub> PCl <sub>2</sub>	644-97-3	air-and water-reactive; fumes in air;	Fair	YES	NA

Benzoic Acid	Restricted	C6H5COOH	65-85-0	concentrated dust may form explosive	Indefinite	NO	O-1
Benzotriazole	PROHIBITED	C6H5N3	95-14-7	explosive	NA	NA	O-6
Benzoyl Peroxide	PROHIBITED	(C6H5CO)2O2	94-36-0	flammable; explosive; oxidizer;	NA	NA	O-6
Benzyl Alcohol	PROHIBITED	C6H5CH2OH	100-51-6	reacts violently with oxidants; may form	NA	NA	O-2 Flam Cabinet
Benzyl Chloride	Restricted	C6H5CH2Cl	100-44-7	probably carcinogenic to humans;	Fair	YES	O-4
Benzylamine	Restricted	C6H5CH2NH2	100-46-9	corrosive; poison; combustible	Fair	YES	O-2 Flam Cabinet
Benzylsodium	Restricted	C7H7Na	1121-53-5	water reactive; ignites spontaneously in	Fair	YES	NA
Beryllium Tetrahydroborate	Restricted	Be(BH4)2	17440-85-6	violently air- and water-reactive;	Fair	YES	I-1
Biphenyl (Diphenyl)	Restricted	C6H5C6H5	92-52-4	irritant; combustible	Limited; refer to	YES	O-3
Bismuth Nitrate	PROHIBITED	Bi(NO3)3·5H2O	10035-06-0	strong oxidizer; contact with other	NA	NA	I-3
Bismuth Pentafluoride	Restricted	BiF5	7787-62-4	water-reactive; toxic	Fair	YES	I-2
Boranes and Diboranes (e.g.,	PROHIBITED			poison; flammable; water-reactive	NA	NA	I-2
Boric Acid	Restricted	H3BO3	10043-35-3	harmful if swallowed	Indefinite	NO	I-9
Boron Bromide Diiodide	Restricted	BBrI2	14355-21-6	violently water-reactive	Fair	YES	I-2
Boron Dibromiodide	Restricted	BBr2I	unavailable	violently water-reactive	Fair	YES	I-2
Boron Phosphide	Restricted	BP	20205-91-8	water-reactive	Fair	YES	I-5
Boron Trichloride	Restricted	BCl3	13517-10-7	water-reactive; toxic	Fair	YES	Gas Cylinder
Bromine (3-1 g ampules	DEMO ONLY	Br2	7726-95-6	strong oxidizer; reacts violently with	Indefinite	NO	I-2 Acid Cabinet
Bromine Fluoride	Restricted	BrF	13863-59-7	water-reactive	Fair	YES	I-2
Bromine Pentafluoride	PROHIBITED	BrF5	7789-30-2	oxidizer; poison; inhalation hazard;	NA	NA	I-2
Bromine Trifluoride	PROHIBITED	BrF3	7787-71-5	oxidizer; poison; inhalation hazard;	NA	NA	I-2
Bromine Water	Restricted	Br2 + H2O	7726-95-6	corrosive; irritating fumes; toxic	Indefinite	NO	I-2 Acid Cabinet
Bromobenzene	Restricted	C6H5Br	108-86-1	highly flammable; toxic	Indefinite	NO	O-4 Flam Cabinet
Bromodiethylaluminum	Restricted	C4H10AlBr	760-19-0	water-reactive	Fair	YES	NA
Bromoform	Restricted	CHBr3	75-25-2	poison; lachrymator	Good	NO	O-4
Butadiene	PROHIBITED	C4H6	106-99-0	may form explosive peroxides;	NA	NA	Gas Cylinder
Butanetriol Trinitrate (BTTN)	PROHIBITED	C4H7N3O9	6659-60-5	explosive	NA	NA	NA
Butanol (n-Butyl Alcohol)	Restricted	CH3(CH2)3OH	71-36-3	highly flammable; toxic	Fair	YES	O-2 Flam Cabinet
Butyric Acid	Restricted	CH3CH2CH2COOH	107-92-6	corrosive; combustible; stench agent;	Indefinite	NO	O-1 Flam Cabinet
Cadmium and Cadmium	PROHIBITED			carcinogenic to humans; highly toxic	NA	NA	I-1
Calcium (100 g limit)	Restricted	Ca	7440-70-2	water-reactive; flammable solid	Good	NO	I-1
Calcium Bromide	Restricted	CaBr2	7789-41-5	toxic	Good	NO	I-2
Calcium Carbide (100 g limit)	DEMO ONLY	CaC2	75-20-7	water-reactive; reacts violently with	Good	NO	I-5
Calcium Hypochlorite	Restricted	Ca(ClO)2	7778-54-3	strong oxidizer; reactive; toxic	Fair to poor	YES	I-6
Calcium Nitrate Tetrahydrate	Restricted	Ca(NO3)2·4H2O	13477-34-4	strong oxidizer; shock sensitive	Fair to poor;	YES	I-3
Calcium Nitrate, Anhydrous	PROHIBITED	Ca(NO3)2	10124-37-5	strong oxidizer; may explode if shocked	NA	NA	I-3
Calcium Permanganate	PROHIBITED	Ca(MnO4)2	10118-76-0	strong oxidizer	NA	NA	I-8
Calcium Phosphide (CP)	Restricted	Ca3P2	1305-99-3	violently air- and water- reactive; strong	Fair	YES	I-5
Camphor	Restricted	C10H16O	76-22-2	toxic; flammable solid; combustible	Indefinite	NO	O-4
Carbon Disulfide (Carbon	Restricted	CS2	75-15-0	highly flammable; poison; severe fire	Indefinite	NO	I-5 Flam Cabinet

Carbon Tetrachloride	PROHIBITED	CCl4	56-23-5	possibly carcinogenic to humans: acutely	NA	NA	O-4
Cerium (IV) Sulfate (Ceric	Restricted	Ce(SO4)2	13590-82-4	strong oxidizer; corrosive; irritant	Limited; refer to	YES	NA
Cesium Amide	Restricted	CsH2N	22205-57-8	water-reactive	Fair	YES	O-2
Cesium Phosphide	Restricted	Cs3P	113737-02-3	water-reactive	Fair	YES	I-5
Chloral Hydrate	PROHIBITED	CCl3CH(OH)2	302-17-0	controlled barbiturate; probably	NA	NA	O-2
Chlorine	PROHIBITED	Cl2	7782-50-5	oxidizer; corrosive; may be fatal if	NA	NA	Gas Cylinder
Chlorine Dioxide	PROHIBITED	ClO2	10049-04-4	oxidizer; flammable and reactive; shock	NA	NA	NA
Chlorine Fluoride	Restricted	ClF	7790-89-8	strong oxidizer; water-reactive	Fair	YES	NA
Chlorine Pentafluoride	Restricted	ClF5	13637-63-3	water-reactive	Fair	YES	NA
Chlorine Trifluoride	PROHIBITED	ClF3	7790-91-2	powerful oxidizer; explosive reaction	NA	NA	NA
Chlorine Trioxide	PROHIBITED	ClO3	13932-10-0	shock sensitive; explosive	NA	NA	NA
Chloroacetic Acid	Restricted	C2H3ClO2	79-11-8	acutely toxic; corrosive	Indefinite	NO	O-1
Chloroacetyl Chloride	Restricted	C2H2Cl2O	79-04-9	air- and water-reactive; corrosive;	Good	NO	I-2
Chloroacetylene	PROHIBITED	C2HCl	593-63-5	shock sensitive; air reactive	NA	NA	NA
Chlorobenzene	Restricted	C6H5Cl	108-90-7	highly flammable; inhalation hazard	Limited; refer to	YES	O-4 Flam Cabinet
Chlorodisobutyl Aluminum	Restricted	C8H18AlCl	1779-25-5	water-reactive; highly flammable	Fair	YES	NA
Chloroform	PROHIBITED	CHCl3	67-66-3	poison; possibly carcinogenic to humans	NA	NA	O-4
Chloropicrin	PROHIBITED	CCl3NO2	76-06-2	shock sensitive; explosive; poison;	NA	NA	NA
Chloroprene	PROHIBITED	C4H5Cl	126-99-8	may form explosive peroxides; possibly	NA	NA	O-4 Flam Cabinet
Chlorotrifluoroethylene	PROHIBITED	C2F3Cl	79-38-9	may form explosive peroxides	NA	NA	O-4 Flam Cabinet
Chromic Acid	Restricted	CrO3	1333-82-0	chromium (VI) compounds are	Poor	YES	I-8 Acid Cabinet
Chromic Chloride (Chromium	PROHIBITED	CrCl3·6H2O	10060-12-5	acutely toxic; fatal if inhaled	NA	NA	I-2
Chromium (III) Nitrate	Restricted	Cr(NO3)3·9H2O	7789-02-8	oxidizer; toxic	Good	NO	I-3
Chromium (III) Sulfate	Restricted	Cr2(SO4)3·nH2O	10101-53-8	corrosive; toxic	Indefinite	NO	I-2
Chromium (Powder)	PROHIBITED	Cr	7440-47-3	flammable; toxic	NA	NA	I-1
Chromium Oxide (Chromic	DEMO ONLY	Cr2O3	1308-38-9	strong oxidizer; poison; corrosive	Indefinite	NO	I-4
Chromium Trioxide	Restricted	CrO3	1333-82-0	chromium (VI) compounds are	Poor	YES	I-4
Chromyl Chloride	PROHIBITED	CrO2Cl2	14977-61-8	water-reactive; chromium (VI)	NA	NA	I-2
Cobalt (II) Nitrate	Restricted	Co(NO3)2·6H2O	10026-22-9	cobalt and cobalt compounds are	Poor; deliquescent	YES	I-3
Cobalt (Powder)	PROHIBITED	Co	7440-48-4	possibly carcinogenic to humans	NA	NA	I-1
Colchicine	PROHIBITED	C22H25NO6	64-86-8	acutely toxic	NA	NA	O-2
Collodion (a solution of	DEMO ONLY	C25H33O13(NO3)7	9004-70-0	highly flammable	Fair	YES	O-4 Flam Cabinet
Copper (II) Bromide (Cupric	Restricted	CuBr2	7789-45-9	toxic; irritant	Poor; deliquescent	YES	I-2
Copper Acetylide	PROHIBITED	Cu2C2	1117-94-8	explosive	NA	NA	NA
Cumene (Isopropylbenzene)	PROHIBITED	C6H5CH(CH3)2	98-82-8	may form explosive peroxides upon	NA	NA	O-4 Flam Cabinet
Cycloheptanone	PROHIBITED	C7H12O	502-42-1	may form explosive peroxides;	NA	NA	O-2
Cyclohexane	Restricted	CH2(CH2)4CH2	110-82-7	highly flammable; poison	Indefinite	NO	O-3 Flam Cabinet
Cyclohexanol	PROHIBITED	C6H11OH	108-93-0	may form explosive peroxides upon	NA	NA	O-2 Flam Cabinet
Cyclohexanone (100 mL	DEMO ONLY	C6H10O	108-94-1	highly flammable; vapors may travel a	Fair	YES	O-4 Flam Cabinet
Cyclohexene (100 mL limit)	DEMO ONLY	C6H10	110-83-8	highly flammable; vapors may travel a	Poor	YES	O-3 Flam Cabinet

Cyclopentanone (100 mL)	DEMO ONLY	C5H8O	120-92-3	highly flammable: vapors may travel a	Good	NO	O-4 Flam Cabinet
Cyclopentene	PROHIBITED	C5H8	142-29-0	may form explosive peroxides upon	NA	NA	O-3 Flam Cabinet
Diacetylene (Butadiyne)	PROHIBITED	C4H2	460-12-8	may form explosive peroxides upon	NA	NA	NA
Diazidoethane	PROHIBITED	C2H4N6	629-13-0	explosive	NA	NA	NA
Diazodinitrophenol (DDNP)	PROHIBITED	C6H2N4O5	4682-03-05	explosive	NA	NA	NA
Diazomethane	PROHIBITED	CH2N2	334-88-3	poisonous and flammable gas	NA	NA	Gas Cylinder
Dichloromethane (Methylene)	Restricted	CH2Cl2	75-09-2	probably carcinogenic to humans; poison	Good	NO	O-4
Dicyclopentadiene	PROHIBITED	C10H12	77-73-6	may form explosive peroxides upon	NA	NA	O-3 Flam Cabinet
Diethyl Aluminum Chloride	Restricted	C4H10AlCl	96-10-6	water-reactive; highly flammable;	Fair	YES	NA
Diethyl Zinc (DEZ)	Restricted	C4H10Zn	557-20-0	air- and water-reactive; highly	Fair	YES	NA
Diglyme (Diethylene Glycol)	DEMO ONLY	(CH3O)CH2	111-96-6	combustible; oxidizes readily in air to	Limited; refer to	YES	O-2
Diisopropyl Beryllium	Restricted	C6H14Be	15721-33-2	water-reactive; beryllium compounds	Fair	YES	NA
Diisopropyl Ether	PROHIBITED	C6H14O	108-20-3	may form explosive peroxides	NA	NA	O-4 Flam Cabinet
Dimethyl Magnesium	Restricted	C2H6Mg	2999-74-8	air- and water-reactive; spontaneously	Fair	YES	NA
Dinitrophenol	PROHIBITED	C6H3OH(NO2)2	51-28-5	explosive	NA	NA	O-8
Dinitrophenylhydrazine (100)	DEMO ONLY	C6H6N4O4	119-26-6	flammable solid; explosive when dry	Good	NO	O-4
Dioxane	PROHIBITED	C4H8O2	123-91-1	may form explosive peroxides upon	NA	NA	O-4 Flam Cabinet
Dipentaerythritol	PROHIBITED	C10H16N6O19	13184-80-0	explosive	NA	NA	NA
Diphenylamine	Restricted	(C6H5)2NH	122-39-4	poison	Indefinite	NO	O-2
Diphenylmethane-4,4	Restricted	C15H10N2O2	101-68-8	poison	Poor	YES	O-5
Disulfur Dinitride	PROHIBITED	S2N2	25474-92-4	explosive	NA	NA	NA
Divinyl Acetylene	PROHIBITED	C6H6	821-08-9	may form explosive peroxides; acutely	NA	NA	NA
Divinyl Ether	PROHIBITED	C4H6O2	109-93-3	may form explosive peroxides; highly	NA	NA	O-4 Flam Cabinet
Ethanol (Ethyl Alcohol)	Restricted	C2H5OH	64-17-5	highly flammable	Indefinite	NO	O-2 Flam Cabinet
Ethyl Acetate	Restricted	CH3COOC2H5	141-78-6	highly flammable; toxic; may form	Good	NO	O-3 Flam Cabinet
Ethyl Ether (diethyl ether)	PROHIBITED	(C2H5)2O	60-29-7	may form explosive peroxides upon	NA	NA	O-4 Flam Cabinet
Ethyl Methacrylate	Restricted	CH2CCH3COOC2	97-63-2	highly flammable; polymerizable	Poor	YES	NA
Ethyl Nitrite	PROHIBITED	C2H5NO2	109-95-5	explosive	NA	NA	NA
Ethylene Dichloride (1,2-	Restricted	C2H4Cl2	107-06-2	highly flammable; possibly carcinogenic	Poor	YES	O-4 Flam Cabinet
Ethylene Glycol Dimethyl	PROHIBITED	C4H10O2	28923-39-9	may form explosive peroxides upon	NA	NA	O-4 Flam Cabinet
Ethylene Glycol Dinitrate	PROHIBITED	C2H4N2O6	628-96-6	explosive	NA	NA	NA
Ethylene Oxide	PROHIBITED	C2H4O	75-21-8	carcinogenic to humans; flammable;	NA	NA	Gas Cylinder
Ethylenediamine	Restricted	NH2CH2CH2NH2	107-15-3	highly flammable; air-reactive; corrosive	Poor	YES	O-3 Flam Cabinet
FAA Solution (Formalin-Aceto-	Restricted			flammable; acutely toxic; carcinogenic	Good	NO	O-2 Flam Cabinet
Fehlings Solution A (Copper	Restricted			acutely toxic	Fair	YES	I-2
Fehlings Solution B (Sodium	Restricted			caustic; toxic	Fair	YES	I-4 Base Cabinet
Ferric Chloride, Anhydrous	Restricted	FeCl3	7705-08-0	corrosive; inhalation hazard	Poor	YES	I-2
Ferric Nitrate Nonahydrate	Restricted	Fe(NO3)3·9H2O	7782-61-8	strong oxidizer; irritant; explosion	Good	NO	I-3
Fluorine Monoxide (Oxygen	Restricted	F2O	7783-41-7	strong oxidizer; air- and water-reactive;	Fair	YES	Gas Cylinder
Fluorosulfonic Acid	Restricted	HSO3F	7789-21-1	corrosive; air- and water-reactive	Fair	YES	I-9 Acid Cabinet

Formaldehyde	PROHIBITED	CH <sub>2</sub> O	50-00-0	carcinogenic to humans; poison; may	NA	NA	O-3
Formalin	Restricted	CH <sub>2</sub> O	50-00-0	toxic; corrosive; carcinogenic to humans	Indefinite	NO	O-3
Formic Acid	Restricted	HC <sub>2</sub> HO <sub>2</sub>	64-18-6	flammable; corrosive	Poor	YES	O-1 Flam Cabinet
Furan	PROHIBITED	C <sub>4</sub> H <sub>4</sub> O	110-00-9	possibly carcinogenic to humans; may	NA	NA	O-4 Flam Cabinet
Gasoline	Restricted	UNDEFINED	8006-61-9 or	highly flammable; possibly carcinogenic	Poor	YES	O-3 Flam Cabinet
Glutaraldehyde	Restricted	OCH(CH <sub>2</sub> ) <sub>3</sub> CHO	111-30-8	water-reactive; toxic	Indefinite	NO	O-3
Glycerol Monolactate	PROHIBITED	C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>11</sub>		explosive	NA	NA	NA
Gold Acetylide	Restricted	C <sub>2</sub> Au <sub>2</sub>	70950-00-4	explosive; shock sensitive; water reactive	Fair	YES	NA
Grignard Reagents and their	PROHIBITED			Both the Grignard Reagent and the	NA	NA	NA
Guanyl Nitrosamino	PROHIBITED			explosive; strong oxidizer	NA	NA	O-2
Hematoxilin	Restricted	C <sub>16</sub> H <sub>14</sub> O <sub>6</sub>	517-28-2	toxic	Fair	YES	O-9
Hexamethylene Diisocyanate	Restricted	C <sub>8</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>	822-06-0	water-reactive; toxic	Fair	YES	NA
Hexamethylenediamine (1, 6-	Restricted	H <sub>2</sub> N(CH <sub>2</sub> ) <sub>6</sub> NH <sub>2</sub>	124-09-4	corrosive; toxic	Indefinite	NO	O-2 Base Cabinet
Hexyl Alcohol	PROHIBITED	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>4</sub> CH <sub>2</sub> OH	111-27-3	highly flammable; poison	NA	NA	O-5
HMX	PROHIBITED	C <sub>4</sub> H <sub>8</sub> N <sub>8</sub> O <sub>8</sub>	2691-41-0	explosive	NA	NA	O-6
Hydrides, Borohydrides (e.g.,	DEMO ONLY	Unavailable		strong reducing agents; air-and water-	sodium borohydride:	YES	O-1
Hydriodic Acid	Restricted	HI	10034-85-2	acutely toxic; corrosive	Fair	YES	I-9 Acid Cabinet
Hydrobromic Acid	Restricted	HBr	10035-10-6	acutely toxic; water-reactive; corrosive	Fair	YES	I-9 Acid Cabinet
Hydrochloric Acid (Muriatic	Restricted	HCl	7647-01-0	toxic; severely corrosive	Good	NO	I-9 Acid Cabinet
Hydrofluoric Acid	PROHIBITED	HF	7664-39-3	corrosive; may be fatal if inhaled or	NA	NA	I-9 Acid Cabinet
Hydrogen (limited to lecture	DEMO ONLY	H <sub>2</sub>	13333-74-0	flammable gas; burns with a pale blue,	Indefinite	NO	Gas Cylinder
Hydrogen Peroxide (>30%)	PROHIBITED	H <sub>2</sub> O <sub>2</sub>	7722-84-1	fire and explosion risk, severely	NA	NA	I-6
Hydrogen Peroxide (30% or	Restricted	H <sub>2</sub> O <sub>2</sub>	7722-84-1	readily decomposes with almost	Fair to Poor	YES	I-6
Hydrogen Sulfide	PROHIBITED	H <sub>2</sub> S	7783-06-4	highly flammable; exposure to very high	NA	NA	Gas Cylinder
Hydroquinone (Benzene-1, 4-	Restricted	C <sub>6</sub> H <sub>4</sub> (OH) <sub>2</sub>	123-31-9	toxic	Poor	YES	O-4
Hydroxylamine Hydrochloride	Restricted	NH <sub>2</sub> OH·HCl	5470-11-1	toxic; strong reducing agent	Poor	YES	O-2
Iodine	Restricted	I <sub>2</sub>	7553-56-2	poison; strong oxidizing agent	Fair	YES	I-2
Iodine Monochloride	Restricted	ICl	7790-99-0	toxic; water-and air-reactive; strong	Poor	YES	I-2
Iron (powder)	Restricted	Fe	7439-89-6	metal dust may present a fire hazard	Good	NO	I-1
Isoamyl Alcohol (3-Methyl 1-	Restricted	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CHOH	123-51-3	highly flammable; toxic	Fair	YES	O-2 Flam Cabinet
Isobutyl Alcohol	Restricted	(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> OH	78-83-1	highly flammable; toxic	Indefinite	NO	O-2 Flam Cabinet
Isopropyl Alcohol	Restricted	(CH <sub>3</sub> ) <sub>2</sub> CHOH	67-63-0	highly flammable; toxic; may form	Fair	YES	O-2 Flam Cabinet
Isopropyl Ether (Diisopropyl	PROHIBITED	C <sub>6</sub> H <sub>14</sub> O	108-20-3	highly flammable; may form explosive	NA	NA	O-4 Flam Cabinet
Kerosene	Restricted	UNDEFINED	8008-20-6	highly flammable; toxic	Indefinite	NO	O-3 Flam Cabinet
Lead Dinitroresorcinate	PROHIBITED	PbC <sub>6</sub> H <sub>2</sub> (NO <sub>2</sub> ) <sub>2</sub> (OH) <sub>2</sub>		explosive; probably carcinogenic to	NA	NA	NA
Lead Dioxide (Lead (IV)	PROHIBITED	PbO <sub>2</sub>	1309-60-0	toxic; probably carcinogenic to humans;	NA	NA	I-4
Lead Mononitroresorcinate	PROHIBITED	PbC <sub>6</sub> H <sub>3</sub> NO <sub>2</sub> (OH) <sub>2</sub>	51317-24-9	explosive; shock sensitive; probably	NA	NA	NA
Lead Nitrate	Restricted	Pb(NO <sub>3</sub> ) <sub>2</sub>	10099-74-8	oxidizer; toxic; probably carcinogenic to	Indefinite	NO	I-3
Lead Tetraoxide, (Red Lead	Restricted	Pb <sub>3</sub> O <sub>4</sub>	1314-41-6	oxidizer; acutely toxic; probably	Indefinite	NO	I-4

Lead Trinitroresorcinate	PROHIBITED	PbC6H(NO2)3(OH)2	15245-44-0	explosive; probably carcinogenic to	NA	NA	I-3
Lithium (20 g limit)	DEMO ONLY	Li	7439-93-2	water-reactive; highly flammable solid;	Indefinite	NO	I-1 Flam Cabinet
Lithium Amide	Restricted	LiNH2	7782-89-0	water-reactive; toxic; flammable;	Fair	YES	I-3 Flam Cabinet
Lithium Bromide	Restricted	LiBr	7550-35-8	acutely toxic	Good	NO	I-1
Lithium Ferrosilicon	Restricted	Fe-Si-Li	70399-13-2	water-reactive; acutely toxic; highly	Fair	YES	I-1 Flam Cabinet
Lithium Nitrate	PROHIBITED	LiNO3	7790-69-4	oxidizer; shock sensitive	NA	NA	I-3
Lithium Nitride	PROHIBITED	Li3N	26134-62-3	highly flammable; powder is easily	NA	NA	I-5 Flam Cabinet
Lithium Peroxide	PROHIBITED	Li2O2	12031-80-0	oxidizer; toxic; explosive	NA	NA	I-6
Lithium Silicon	Restricted	Li-Si	68848-64-6	water-and air-reactive; acutely toxic;	Fair	YES	I-1
Lithium Sulfate	Restricted	Li2SO4·H2O	10102-25-7	toxic	Indefinite	NO	I-2
Magnesium (except Mg ribbon)	PROHIBITED	Mg	7439-95-4	reacts with water to liberate hydrogen	NA	NA	I-1 Flam Cabinet
Magnesium (ribbon)	Restricted	Mg	7439-95-4	flammable solid; water-reactive	Indefinite	NO	I-1 Flam Cabinet
Magnesium (turnings) (100 g)	DEMO ONLY	Mg	7439-95-4	water-reactive; flammable solid; strong	Indefinite	NO	I-1 Flam Cabinet
Magnesium Nitrate	Restricted	Mg(NO3)2·6H2O	13446-18-9	oxidizer; toxic	Good	NO	I-3
Magnesium Peroxide	PROHIBITED	MgO2	14452-57-4	strong oxidizer	NA	NA	I-6
Manganese (II) Nitrate	Restricted	Mn(NO3)2·6H2O	10377-66-9	strong oxidizer; toxic	Indefinite	NO	I-3
Manganese Carbonate	Restricted	MnCO3	598-62-9	toxic	Good	NO	I-4
Manganese Dioxide	Restricted	MnO2	1313-13-9	toxic	Indefinite	NO	I-6
Mannitol Hexanitrate	PROHIBITED	C6H8N6O18	15825-70-4	explosive; strong oxidizer	NA	NA	NA
Mercury (except in sealed	PROHIBITED	Hg	7439-97-6	corrosive; poison; severely and subtly	NA	NA	I-1
Mercury Compounds (e.g.,	PROHIBITED			poison; severely and subtly toxic	NA	NA	I-2
meta-Trinitrocresol (3-Methyl-	PROHIBITED	C7H5N3O7	602-99-3	explosive; strong oxidizer	NA	NA	NA
Methyl Acetylene	PROHIBITED	C3H4	74-99-7	highly flammable; may form explosive	NA	NA	O-3 Flam Cabinet
Methyl Alcohol (Methanol)	Restricted	CH3OH	67-56-1	highly flammable; toxic	Good	NO	O-2 Flam Cabinet
Methyl Aluminum	Restricted	C3H9Al2Br3	12263-85-3	water-and air-reactive; toxic; dangerous	Fair	YES	NA
Methyl Aluminum	Restricted	C3H9Al2Cl3	12542-85-7	water-and air-reactive; toxic; dangerous	Fair	YES	NA
Methyl Chloride	Restricted	CH3Cl	74-87-3	highly flammable; toxic	Indefinite	NO	O-4 Flam Cabinet
Methyl Cyclopentane	PROHIBITED	C6H12	96-37-7	highly flammable	NA	NA	O-3 Flam Cabinet
Methyl Isobutyl Ketone (4	DEMO ONLY	CH3COCH2CH(CH3)2	108-10-1	highly flammable; vapors may travel a	Fair to Poor	YES	O-4 Flam Cabinet
Methyl Isocyanate	PROHIBITED	CH3NCO	624-83-9	water-reactive; highly flammable;	NA	NA	O-5 Flam Cabinet
Methyl Methacrylate Monomer	PROHIBITED	C5H8O2	80-62-6	may form explosive peroxides;	NA	NA	O-3 Flam Cabinet
Naphthalene (Moth Balls,	Restricted	C10H8	91-20-3	possibly carcinogenic to humans; highly	Poor	YES	O-3
n-Butyllithium	Restricted	C4H9Li	109-72-8	spontaneously flammable in air; toxic	Limited; refer to	YES	NA
Nessler's Reagent (Mercuric	PROHIBITED	Hg+KI+NaOH	7783-33-7		NA	NA	I-4
n-Heptane	Restricted	CH3(CH2)5CH3	142-82-5	highly flammable; toxic	Good	NO	O-3 Flam Cabinet
n-Hexane	Restricted	CH3(CH2)4CH3	110-54-3	highly flammable; toxic	Good	NO	O-3 Flam Cabinet
Nickel (II) Nitrate	Restricted	Ni(NO3)2·6H2O	13478-00-7	nickel compounds are carcinogenic to	Poor	YES	I-3
Nickel (II) Sulfate	Restricted	NiSO4·6H2O	10101-97-0	nickel compounds are carcinogenic to	Good	NO	I-2
Nicotine	PROHIBITED	C10H14N2	54-11-5	poison; acutely toxic	NA	NA	O-2



Nitric Acid	Restricted	HNO3	7697-37-2	acutely toxic; strong oxidizer; water-and air-reactive	Fair; When this substance is stored for a long period, it gradually destroys the cap. Do not interchange another cap except one designated by its color code (red). Contact Flinn for a replacement cap if needed. Shelf life of nitric acid is good except for this bottle cap problem. Product may turn yellow due to the release of nitrogen dioxide on exposure to light. This yellow color does not affect the product's usefulness in the school laboratory.	YES	I-9 Acid Cabinet (Separate)
Nitrobenzene	Restricted	C6H5NO2	98-95-3	possibly carcinogenic to humans; acutely	Fair	Yes	O-3 Flam Cabinet
Nitrogen	Restricted	N2	7727-37-9	may displace oxygen, which could cause	Indefinite	NO	Gas Cylinder
Nitroglycerin	<b>PROHIBITED</b>	C3H5N3O9	55-63-0	explosive; strong oxidizer	NA	NA	I-3
Nitrosoguanidine	<b>PROHIBITED</b>	C2H5N5O3	70-25-7	explosive; highly flammable; water-	NA	NA	O-2 Flam Cabinet
Octyl Alcohol (Octanol or	Restricted	CH3(CH2)6CH2OH	111-87-5	flammable; toxic	Limited; refer to	YES	O-2 Flam Cabinet
ortho-Dichlorobenzene (1, 2-	Restricted	C6H4Cl2	95-50-1	flammable; toxic	Fair to Poor	YES	O-3
ortho-Toluidine (e.g.,	<b>PROHIBITED</b>	C7H9N	95-53-4	carcinogenic to humans; poison	NA	NA	O-2
Osmic Acid (Osmium	<b>PROHIBITED</b>	OsO4	20816-12-0	acutely toxic; may be fatal if inhaled or	NA	NA	O-4
Oxalic Acid, Dihydrate	Restricted	H2C2O4·2H2O	6153-56-6	acutely toxic	Indefinite	NO	O-1
Oxygen	Restricted	O2	7782-44-7	strong oxidizer; fire and explosion	Indefinite	NO	Gas Cylinder

para-Dichlorobenzene (1, 4-	Restricted	C6H4Cl2	106-46-7	possibly carcinogenic to humans:	Fair to Poor	YES	O-3
para-Nitrophenol (4-	PROHIBITED	NO2C6H4OH	100-02-7	poison: forms explosive mixtures	NA	NA	O-8
Pentaerythrite Tetranitrate	PROHIBITED	C5H8N4O12	78-11-5	explosive; strong oxidizer	NA	NA	NA
Pentane (100 mL limit)	DEMO ONLY	C5H12	109-66-0	highly flammable	Indefinite	NO	O-3 Flam Cabinet
Pentyl Alcohol (Amyl Alcohol)	Restricted	CH3(CH2)4OH	71-41-0	highly flammable: toxic	Poor	YES	O-2 Flam Cabinet
Perchloric Acid	PROHIBITED	HClO4	7601-90-3	strong oxidizing agent: corrosive:	NA	NA	I-9 Acid Cabinet
Petroleum Ether (500 mL)	Restricted	UNDEFINED	Unavailable	highly flammable: toxic	Indefinite	NO	O-3 Flam Cabinet
Phenol	PROHIBITED	C6H6O	108-95-2	combustible; corrosive: may be fatal if	NA	NA	O-8
Phenyl Thiourea	PROHIBITED	C7H8N2S	103-85-5	extremely toxic: poison: emits toxic	NA	NA	O-2
Phosphides (e.g., magnesium)	PROHIBITED			poison: water-reactive	NA	NA	I-5
Phosphoric Acid	Restricted	H3PO4	7664-38-2	toxic; corrosive	Good	NO	I-9 Acid Cabinet
Phosphorus (yellow or white)	PROHIBITED	P	7723-14-0	flammable solid; self-ignition possible:	NA	NA	I-10 Flam Cabinet
Phosphorus Halides and	PROHIBITED			water-reactive; corrosive: toxic	NA	NA	I-2
Phosphorus, Red	DEMO ONLY	P	7723-14-0	water-reactive; flammable solid; can	Indefinite	NO	I-10 Flam Cabinet
Phthalic Acid (1, 2	Restricted	C6H4(COOH)2	88-99-3	combustible; toxic	Limited; refer to	YES	O-1 Acid Cabinet
Phthalic Anhydride	PROHIBITED	C8H4O3	85-44-9	explosive; water-reactive	NA	NA	O-1
Picramide	PROHIBITED	C6H4N4O6	489-98-5	explosive; strong oxidizing agent	NA	NA	I-3
Picrates and Picryl	PROHIBITED			explosive	NA	NA	I-3
Picric Acid (2,4,6-	PROHIBITED	C6H3N3O7	88-89-1	extremely reactive; explosive when dry	NA	NA	O-1 Acid Cabinet
Polymethylene Polyphenyl	Restricted	(C8H5NO)n	9016-87-9	water reactive; toxic	Fair	YES	I-5
Polyvinyl Alcohol	Restricted	CH2CH(OH)	9002-89-5	combustible; toxic	Indefinite	NO	O-2 Flam Cabinet
Polyvinyl Nitrate (PVN or	PROHIBITED	(C2H3NO3)n		explosive; shock sensitive	NA	NA	NA
Potassium (1-container with	DEMO ONLY	K	7440-09-7	violently water-reactive; may form	Poor	YES	I-1
Potassium Amide	PROHIBITED	KNH2	17242-52-3	may form explosive peroxides	NA	NA	NA
Potassium Bromate	Restricted	KBrO3	7758-01-2	possibly carcinogenic to humans	Indefinite	NO	I-6
Potassium Chlorate (100 g	DEMO ONLY	KClO3	3811-04-9	explosive; strong oxidizer	Indefinite	NO	I-6
Potassium Chromate	Restricted	K2CrO4	7789-00-6	chromium (VI) compounds are	Indefinite	NO	I-8
Potassium Cyanide	PROHIBITED	KCN	151-50-8	acutely toxic	NA	NA	I-7
Potassium Dichromate	Restricted	K2Cr2O7	7778-50-9	chromium (VI) compounds are	Indefinite	NO	I-8
Potassium	PROHIBITED	KC6H2N4O6	29267-75-2	explosive	NA	NA	NA
Potassium Ferricyanide (Red	Restricted	K3Fe(CN)6	13746-66-2	contact with acids liberates toxic gas	Fair	YES	I-7
Potassium Ferrocyanide	Restricted	K4Fe(CN)6·3H2O	14459-95-1	toxic; contact with acids liberates toxic	Fair to Poor	YES	I-7
Potassium Hydroxide (Potash	Restricted	KOH	1310-58-3	corrosive; toxic	Fair	YES	I-4 Base Cabinet
Potassium Iodate	Restricted	KIO3	7758-05-6	oxidizer; toxic	Indefinite	NO	I-6
Potassium Nitrate	Restricted	KNO3	7757-79-1	strong oxidizer	Good	NO	I-3
Potassium Nitrite	PROHIBITED	KNO2	7758-09-0	strong oxidizer	NA	NA	I-3
Potassium Perchlorate	PROHIBITED	KClO4	7778-74-7	explosive	NA	NA	I-6
Potassium Periodate	PROHIBITED	KIO4	7790-21-8	strong oxidizer	NA	NA	I-6
Potassium Permanganate	Restricted	KMnO4	7722-64-7	strong oxidizer; explodes on sudden heating	Indefinite	NO	I-8

Potassium Peroxide	PROHIBITED	K2O2	17014-71-0	water-reactive; strong oxidizer	NA	NA	I-6
Potassium Persulfate	Restricted	K2S2O8	7727-21-1	strong oxidizer; toxic	Fair to poor:	YES	I-6
Potassium Sulfide	Restricted	K2S	1312-73-8	pyrophoric; spontaneously combustible;	Fair (3 Years)	YES	I-5
Potassium Superoxide	PROHIBITED	KO2	12030-88-5	water-reactive; strong oxidizer	NA	NA	I-4
Propane	Restricted	CH3CH2CH3	74-98-6	highly flammable; compressed gas	Fair	YES	Gas Cylinder
Propionic Acid	Restricted	C3H6O2	79-09-4	corrosive; flammable; toxic	Indefinite	NO	O-1 Flam Cabinet
Propyl Alcohol (n-Propanol or	Restricted	C3H8O	71-23-8	highly flammable; toxic	Indefinite	NO	O-2 Flam Cabinet
Pyridine (Azine or	Restricted	C5H5N	110-86-1	highly flammable; toxic	Good	NO	O-2 Flam Cabinet
Pyrosulfuryl Chloride (Sulfur	Restricted	Cl2O5S2	7791-27-7	water- and air-reactive; corrosive; toxic	Fair	YES	I-1
RDX	PROHIBITED	C3H6N6O6	121-82-4	explosive	NA	NA	O-2
Silanes and Chlorosilanes	PROHIBITED			flammable; reactive; highly toxic	NA	NA	NA
Silicon Tetrachloride	PROHIBITED	SiCl4	10026-04-7	air- and water-reactive; corrosive	NA	NA	Gas Cylinder
Silver Acetylde	PROHIBITED	Ag2C2	13092-75-6	explosive; shock sensitive	NA	NA	NA
Silver Cyanate	PROHIBITED	AgOCN	3315-16-0	toxic	NA	NA	I-7
Silver Cyanide	PROHIBITED	AgCN	506-64-9	acutely toxic; may be fatal if inhaled.	NA	NA	I-7
Silver Dinitroresorcinate	PROHIBITED	Ag2C6H(NO3)2(OH)2		reactive; ignitable; shock sensitive	NA	NA	NA
Silver Fulminate	PROHIBITED	AgCNO	5610-59-3	explosive	NA	NA	NA
Silver Nitrate	Restricted	AgNO3	7761-88-8	strong oxidizer; corrosive; toxic	Indefinite	NO	I-3
Silver Nitride	PROHIBITED	Ag3N	20737-02-4	shock sensitive; explosive	NA	NA	I-5
Silver Oxalate	PROHIBITED	Ag2C2O4	533-51-7	shock sensitive	NA	NA	I-2
Silver Oxide (100 g limit)	DEMO ONLY	Ag2O	20667-12-3	strong oxidizer; contact with other	Indefinite	NO	I-4
Silver Sulfate	Restricted	Ag2SO4	10294-26-5	toxic	Indefinite	NO	I-2
Silver Tetrazene	PROHIBITED			shock sensitive	NA	NA	I-3
Sodium (100 g limit)	DEMO ONLY	Na	7440-23-5	violently water-reactive; strong reducing	Good	NO	I-1
Sodium Amide	PROHIBITED	NaNH2	7782-92-5	may form explosive peroxides; water-	NA	NA	I-3
Sodium Bisulfite	Restricted	NaHSO3	7631-90-5	strong reducing agent; corrosive; toxic	Fair to Poor	YES	I-2
Sodium Chlorate	PROHIBITED	NaClO3	7775-09-9	oxidizer; explosive	NA	NA	I-6
Sodium Chlorite	PROHIBITED	NaClO2	7758-19-2	oxidizer; explosive	NA	NA	I-6
Sodium Chromate	Restricted	Na2CrO4	7775-11-3	chromium (VI) compounds are	Fair	YES	I-8
Sodium Cobaltinitrite	Restricted	Na3Co(NO2)6	13600-98-1	cobalt and cobalt compounds are	Indefinite	NO	I-3
Sodium Cyanide	PROHIBITED	NaCN	143-33-9	acutely toxic	NA	NA	I-7
Sodium Dichromate	Restricted	Na2Cr2O7·2H2O	7789-12-0	chromium (VI) compounds are	Poor	YES	I-8
Sodium Dithionite (Sodium	PROHIBITED	Na2S2O4	7775-14-6	spontaneously combustible; water-	NA	NA	I-2
Sodium Fluoride	Restricted	NaF	7681-49-4	corrosive; poison	Indefinite	NO	I-2
Sodium Hydroxide (Lye)	Restricted	NaOH	1310-73-2	water-reactive; corrosive; toxic	Good	NO	I-4 Base Cabinet
Sodium Hypochlorite	Restricted	NaClO	7681-52-9	strong oxidizer; corrosive; toxic	Poor	YES	I-6
Sodium Iodate	Restricted	NaIO3	7681-55-2	strong oxidizer; toxic	Fair to Poor	YES	I-6
Sodium Iodide	Restricted	NaI	7681-82-5	toxic	Fair to Poor	YES	I-2
Sodium Metabisulfite	Restricted	Na2S2O5	7681-57-4	strong reducing agent; corrosive; toxic	Poor	YES	I-2

Sodium Methlyate	PROHIBITED	NaCH3O	124-41-4	spontaneously combustible; water-	NA	NA	NA
Sodium Nitrate	Restricted	NaNO3	7631-99-4	strong oxidizer; toxic	Indefinite	NO	I-3
Sodium Nitrite	Restricted	NaNO2	7632-00-0	strong oxidizer; poison	Indefinite	NO	I-3
Sodium Perborate	PROHIBITED	NaBO3	7632-04-4	air- and water- reactive; explosive	NA	NA	I-8
Sodium Perchlorate	PROHIBITED	NaClO4	7601-89-0	oxidizer; water-reactive; explosive	NA	NA	I-6
Sodium Permanganate	PROHIBITED	NaMnO4	10101-50-5	oxidizer; explosive	NA	NA	I-8
Sodium Peroxide	PROHIBITED	Na2O2	1313-60-6	oxidizer; water- reactive; toxic;	NA	NA	I-6
Sodium Phosphate Tribasic	Restricted	Na3PO4·12H2O	10101-89-0	corrosive; toxic	Fair	YES	I-2
Sodium Potassium Alloy	Restricted	K2Na	11135-81-2	water-reactive; in contact with water	Fair	YES	I-1
Sodium Sulfide Nonahydrate	Restricted	Na2S·9H2O	1313-84-4	explosive; flammable solid; strong	Fair	YES	I-5
Sodium Thiocyanate	Restricted	NaSCN	540-72-7	strong reducing agent; toxic	Poor	YES	I-7
Sodium Thiosulfate	Restricted	Na2S2O3·5H2O	10102-17-7	toxic	Poor	YES	I-2
Stannic Chloride	Restricted	SnCl4	7646-78-8	air- and water-reactive; corrosive; toxic	Poor	YES	I-2
Strontium Nitrate	Restricted	Sr(NO3)2	10042-76-9	strong oxidizer	Indefinite	NO	I-3
Strontium Perchlorate	PROHIBITED	SrCl2O8	13450-97-0	shock sensitive	NA	NA	I-6
Styrene Monomer	PROHIBITED	C8H8	100-42-5	highly flammable; may form explosive	NA	NA	O-3 Flam Cabinet
Sulfur Chloride (Sulfur	Restricted	Cl2S2	10025-67-9	water-reactive; corrosive; toxic	Fair	YES	I-2
Sulfur Pentafluoride	Restricted	S2F10	5714-22-7	water-reactive; poison	Fair	YES	Liquid: I-2, Gas: Gas
Sulfur Trioxide	PROHIBITED	SO3	7446-11-9	air- and water-reactive; corrosive;	NA	NA	NA
Sulfuric Acid (<10%)	Restricted	H2SO4	7664-93-9	strong oxidizer; severely corrosive;	Good	NO	I-9 Acid Cabinet
Sulfuric Acid (>10%) (2.5 L	Restricted	H2SO4	7664-93-9	strong oxidizer; severely corrosive;	Good	NO	I-9 Acid Cabinet
Sulfuryl Chloride (Sulfonyl	PROHIBITED	Cl2O2S	7791-25-5	air- and water-reactive; corrosive;	NA	NA	I-2
Sulfuryl Chloride Fluoride	PROHIBITED	ClFO2S	13637-84-8	poison; water-reactive; corrosive	NA	NA	I-2
Terpineol (Terpene Alcohol)	Restricted	C10H17OH	98-55-5	flammable; toxic	Indefinite	NO	NA
tert-Butyl Alcohol (t-Butanol	Restricted	(CH3)3COH	75-65-0	highly flammable; irritating vapor and	Fair	YES	O-2 Flam Cabinet
tert-butyl Hypochlorite	PROHIBITED	C4H9ClO	507-40-4	spontaneously combustible; pyrophoric;	NA	NA	NA
Tetrafluoroethylene	PROHIBITED	C2F4	116-14-3	may form explosive peroxides; highly	NA	NA	O-4 Flam Cabinet
Tetrahydrofuran	PROHIBITED	C4H8O	109-99-9	highly flammable; oxidizes in air to form	NA	NA	O-4 Flam Cabinet
Tetrahydronaphthalene	PROHIBITED	C10H12	119-64-2	highly flammable; vapors may form	NA	NA	O-3 Flam Cabinet
Tetranitromethane	PROHIBITED	CN4O8	509-14-8	oxidizer; poison; possibly carcinogenic to	NA	NA	NA
Tetraselenium Tetranitride	PROHIBITED	Se4N4	12033-88-4	shock sensitive	NA	NA	NA
Tetrazene (tetrazolyl	PROHIBITED	C2H6N10·H2O	31330-63-9	shock sensitive; explosive	NA	NA	O-6
Tetryl (2,4,6	PROHIBITED	C7H5N5O8	479-45-8	oxidizer; explosive	NA	NA	NA
Thallium Nitride	PROHIBITED	Tl3N	12033-67-9	shock sensitive	NA	NA	NA
Thermit (example: could be	PROHIBITED			flammable solid; dangerous fire risk;	NA	NA	I-4
Thermite Igniting Mixture	PROHIBITED			becomes a fire hazard if exposed to a	NA	NA	I-4
Thiocarbonyl Tetrachloride	PROHIBITED	CCl4S	594-42-3	poison; inhalation hazard	NA	NA	I-7
Thionyl Chloride	PROHIBITED	SOCl2	7719-09-7	violently water-reactive; lachrymator;	NA	NA	I-6 Acid Cabinet
Thiophosphoryl Chloride	Restricted	Cl3SP	3982-91-0	air- and water- reactive; corrosive; toxic	Fair	YES	I-2
Tin	Restricted	Sn	7440-31-5	metal dust may present a fire hazard	Indefinite	NO	I-1

Titanium (Powder)	PROHIBITED	Ti	7440-32-6	spontaneously combustible; may ignite	NA	NA	I-1 Flam Cabinet
Titanium Tetrachloride	PROHIBITED	TiCl4	7550-45-0	water-reactive; corrosive; acutely toxic;	NA	NA	I-2
Toluene (Methyl Benzene)	Restricted	C7H8	108-88-3	highly flammable; toxic	Good	NO	O-3 Flam Cabinet
Toluene Diisocyanate (TDI)	Restricted	C9H6N2O2	584-84-9	water-reactive; acutely toxic	Poor (6 months)	YES	I-7
Trichloroethane-1,1,1	Restricted	C2H3Cl3	71-55-6	poison; flammable	Fair	YES	O-4
Trichloroethylene (Acetylene)	Restricted	C2HCl3	79-01-6	carcinogenic to humans; poison;	Indefinite	NO	O-4
Triethanolamine	Restricted	C6H15NO3	102-71-6	toxic	Fair	YES	O-2
Triethyl Aluminum	PROHIBITED	(C2H5)3Al	97-93-8	spontaneously combustible; flammable	NA	NA	I-1
Triisobutyl Aluminum	PROHIBITED	(C4H9)3Al	100-99-2	spontaneously combustible; reacts	NA	NA	I-1
Trimethyl Aluminum	PROHIBITED	(CH3)3Al	75-24-1	spontaneously combustible; flammable	NA	NA	I-1
Tri-n-Butylaluminum	Restricted	C12H27Al	1116-70-7	air- and water- reactive; strong reducing	Fair	YES	I-1
Trinitroanisole	PROHIBITED	C7H5N3O7	606-35-9	explosive; strong oxidizer	NA	NA	O-4
Trinitrobenzene	PROHIBITED	C6H3N3O6	99-35-4	explosive; flammable solid; strong	NA	NA	NA
Trinitrobenzoic Acid	PROHIBITED	C7H3N3O8	129-66-8 or	explosive; highly flammable; strong	NA	NA	NA
Trinitronaphthalene (1,3,5-	PROHIBITED	C10H5N3O6	2243-94-9	explosive; strong oxidizer	NA	NA	NA
Trinitroresorcinol	PROHIBITED	C6H3N3O8	82-71-3	explosive; strong oxidizer	NA	NA	NA
Trinitrotoluene (TNT or 2,4,6	PROHIBITED	C7H5N3O6	118-96-7	explosive; strong oxidizer	NA	NA	NA
Trioctyl Aluminum	Restricted	(CH3(CH2)7)3Al	1070-00-4	water-reactive; acutely toxic; flammable	Poor (two years if	YES	NA
Triphenyltetrazolium	Restricted	C19H15N4Cl	298-96-4	toxic	Good	NO	O-9
Trisodium Phosphate (Sodium	Restricted	Na3PO4	7601-54-9	toxic	Indefinite	NO	I-2
Tungsten	Restricted	W	7440-33-7	metal dust may present a fire hazard	Indefinite	NO	I-1
Turpentine	Restricted	C10H16	8006-64-2	highly flammable; toxic	Indefinite	NO	O-3 Flam Cabinet
Uranium and Uranium	PROHIBITED			toxic by inhalation or ingestion	NA	NA	I-1 Radioactive
Urea Nitrate	PROHIBITED	CH4N2O.HNO3	124-47-0	explosive; strong oxidizer	NA	NA	I-3
Vanadium Trichloride	Restricted	VCl3	7718-98-1	toxic; air- and water-reactive; corrosive	Fair	YES	I-6
Vinyl Acetate	PROHIBITED	C4H6O2	108-05-4	may form explosive peroxides; possibly	NA	NA	O-3 Flam Cabinet
Vinyl Acetylene	PROHIBITED	C4H4	689-97-4	may form explosive peroxides; reactive	NA	NA	Liquid: O-3 Flam
Vinyl Chloride	PROHIBITED	C2H3Cl	75-01-4	carcinogenic to humans; may form	NA	NA	O-4 Flam Cabinet
Vinyl Ethers (e.g., divinyl	PROHIBITED			may form explosive peroxides upon	NA	NA	O-4 Flam Cabinet
Vinylidene Chloride (1,1-	PROHIBITED	C2H2Cl2	75-35-4	may form explosive peroxides	NA	NA	O-4 Flam Cabinet
Wright's Stain (Hg	DEMO ONLY	UNDEFINED	68988-92-1	contains mercury; poison; acutely toxic	Indefinite	NO	O-9
Xylene	Restricted	C8H10	1330-20-7	highly flammable; toxic by inhalation or	Good	NO	O-3 Flam Cabinet
Zinc (Powder)	Restricted	Zn	7440-66-6	strong reducing agent; water-reactive;	Indefinite	NO	I-1
Zinc Acetylde	Restricted			shock sensitive; water-reactive	Fair	YES	NA
Zinc Nitrate Hexahydrate	Restricted	Zn(NO3)2·6H2O	10196-18-6	strong oxidizer	Indefinite	NO	I-3
Zinc Peroxide	PROHIBITED	ZnO2	1314-22-3	oxidizer; used as an oxidant in	NA	NA	I-6
Zinc Phosphide	Restricted	Zn3P2	1314-84-7	strong reducing agent; water reactive;	Fair (3 Years)	YES	I-5
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