



COLORADO

Division of Environmental
Health & Sustainability

Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

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 Shelf Life - Table 2 Required?
1-Naphthol (alpha Naphthol)	Restricted	C ₁₀ H ₇ OH	90-15-3	toxic	Indefinite	NO

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
2,2,4-Trimethylpentane	Restricted	C8H18	540-84-1	highly flammable; toxic	Limited; refer to expiration date on label	YES
2-Butanol (sec-Butyl Alcohol)	PROHIBITED	C2H5CH(OH)CH3	78-92-2	may form explosive peroxides upon concentration	NA	NA
2-Butanone (Methyl Ethyl Ketone or MEK)	Restricted	CH3COC2H5	78-93-3	highly flammable; may form explosive peroxides	Good	NO
2-Chlorophenyl Isocyanate	Restricted	C7H4ClNO	3320-83-0	poison; highly flammable	Fair	YES
Acetal (1,1-Diethoxyethane)	PROHIBITED	C6H14O2	105-57-7	may form explosive peroxides upon concentration; toxic	NA	NA
Acetaldehyde (Ethanal)	PROHIBITED	CH3CHO	75-07-0	may form explosive peroxides upon concentration; possibly carcinogenic to humans; highly flammable	NA	NA
Acetamide	Restricted	CH3CONH2	60-35-5	possibly carcinogenic to humans	Poor; deliquescent	YES
Acetanilide (n-Phenylacetamide or Acetamidobenzene)	Restricted	CH3CONHC6H5	103-84-4	combustible; irritant	Indefinite	NO
Acetic Acid	Restricted	CH3COOH	64-19-7	flammable; corrosive	Good	NO
Acetic Anhydride	Restricted	(CH3CO)2O	108-24-7	water-reactive; corrosive; flammable	Good	NO
Acetone	Restricted	CH3COCH3	67-64-1	highly flammable; inhalation hazard	Good	NO
Acetyl Halides (e.g., Acetyl Fluoride, Acetyl Chloride, Acetyl Bromide, Acetyl Iodide)	PROHIBITED			respiratory irritant, toxic; violent reaction with water; dangerous fire risk	NA	NA
Acetyl Nitrate	PROHIBITED	CH3CONO3	591-09-3	shock sensitive	NA	NA
Acetylcholine Bromide	Restricted	C7H16BrNO2	66-23-9	toxic; irritant	Good	NO
Acridine Orange	Restricted	C17H19N3	10127-02-3	irritant	Fair (48 months)	YES
Acrolein	PROHIBITED	CH2CHCHO	107-02-8	flammable and reactive; may be fatal if ingested, inhaled, or absorbed through the skin	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Acrylic Acid (Propenoic Acid)	PROHIBITED	H ₂ CCHCO ₂ H	79-10-7	may form explosive peroxides; reactive; corrosive	NA	NA
Acrylonitrile	PROHIBITED	CH ₂ CHCN	107-13-1	may form explosive peroxides; possibly carcinogenic to humans; flammable; reactive	NA	NA
Adipoyl Chloride	Restricted	ClOC(CH ₂) ₄ COCl	111-50-2	corrosive	Poor	YES
Alcohols (Allylic, Benzylic) Note: Alcohols are referred to as allylic or benzylic if the hydroxyl group is bonded to an allylic carbon atom (adjacent to a C=C double bond) or a benzylic carbon atom (next to a benzene ring), respectively. (e.g., 3-penten-2-ol; 2-propen-1-ol (allyl alcohol), 1-phenylethanol, phenylmethanol (benzyl alcohol), diphenylmethanol (diphenylcarbinol), triphenylmethanol (triphenylcarbinol)).	PROHIBITED			may form explosive peroxides upon concentration	NA	NA
Alizarin Red	Restricted	C ₁₄ H ₇ NaO ₇ S	130-22-3	toxic	Indefinite	NO
Alkyl Aluminum Chloride	Restricted	Unavailable	Unavailable	water reactive	Poor; deliquescent	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Alkyl-Substituted Cycloaliphatics Note: Methyl-, ethyl-, propyl-, butyl- are common alkyl substituents. A cycloaliphatic is a cyclic hydrocarbon such as cyclopropane, cyclobutane, or cyclohexane (e.g., tert-butylcycloheptane or 1-cyclobutyl-4-methylpentane).	PROHIBITED			may form explosive peroxides upon concentration	NA	NA
Aluminum (Powder)	Restricted	Al	7429-90-5	water-reactive; strong reducing agent; pyrophoric	Indefinite	NO
Aluminum Acetate	Restricted	Al(C ₂ H ₃ O ₂) ₂ OH	142-03-0	toxic	Good	NO
Aluminum Bromide	Restricted	AlBr ₃	7727-15-3	air- and water-reactive; corrosive	Fair	YES
Aluminum Chloride Hexahydrate	Restricted	AlCl ₃ ·6H ₂ O	7784-13-6	water-reactive; corrosive	Poor; deliquescent	YES
Aluminum Chloride, Anhydrous (25 g limit)	DEMO ONLY	AlCl ₃	7446-70-0	air-and water-reactive; fumes in moist air form toxic gas	Good	NO
Aluminum Fluoride	Restricted	AlF ₃	7784-18-1	water-reactive; corrosive; inhalation hazard	Fair	YES
Aluminum Hydroxide	Restricted	Al(OH) ₃	21645-51-2	possibly toxic	Indefinite	NO
Aluminum Nitrate	Restricted	Al(NO ₃) ₃ ·9H ₂ O	7784-27-2	strong oxidizer	Indefinite	NO
Aluminum Phosphide	PROHIBITED	AlP	20859-73-8	water-reactive; generates poisonous and explosive gas when in contact with air or moisture	NA	NA
Aluminum Tetrahydroborate (Aluminum Borohydride)	Restricted	Al(BH ₄) ₃	16962-07-5	poison; air- and water-reactive; pyrophoric; strong reducing agent	Fair	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Amatol (TNT and Ammonium Nitrate mixture)	PROHIBITED			explosive	NA	NA
Ammonal (TNT, Ammonium Nitrate, and Aluminum Powder Mixture)	PROHIBITED			explosive	NA	NA
Ammonia Solutions in Water	Restricted	NH3	7664-41-7	corrosive; reactive; toxic	Indefinite	NO
Ammonia, Anhydrous	Restricted	NH3	7664-41-7	poison; water-reactive; inhalation hazard; corrosive	Indefinite	NO
Ammonium Acetate	Restricted	NH4C2H3O2	631-61-8	inhalation hazard; irritant	Poor; deliquescent	YES
Ammonium Bicarbonate	Restricted	NH4HCO3	1066-33-7	inhalation hazard; irritant	Good	NO
Ammonium Bromate	PROHIBITED	NH4BrO3	13843-59-9	shock sensitive	NA	NA
Ammonium Bromide	Restricted	NH4Br	12124-97-9	inhalation hazard; irritant	Fair to poor; hygroscopic	YES
Ammonium Carbonate	Restricted	NH4CO3	10361-29-2	inhalation hazard; irritant	Indefinite	NO
Ammonium Chlorate	PROHIBITED	NH4ClO3	10192-29-7	strong oxidizer; explosive	NA	NA
Ammonium Chloride	Restricted	NH4Cl	12125-02-9	toxic; inhalation hazard; irritant	Fair to poor; hygroscopic	YES
Ammonium Chromate	Restricted	(NH4)2CrO4	7788-98-9	chromium (VI) compounds are carcinogenic to humans; strong oxidizer; poison	Indefinite	NO
Ammonium Dichromate (100 g limit)	DEMO ONLY	(NH4)2Cr2O7	7789-09-5	oxidizer; chromium (VI) compounds are carcinogenic to humans	Fair	YES
Ammonium Fluoride	Restricted	NH4F	12125-01-8	corrosive; toxic	Fair to poor; substance is deliquescent	YES
Ammonium Hexanitrocobaltate	PROHIBITED	NH3Co(NO2)6	13600-98-1	explosive	NA	NA
Ammonium Hydroxide	Restricted	NH4OH	1336-21-6	inhalation hazard; severely corrosive	Indefinite	NO

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Ammonium Iodide	Restricted	NH4I	12027-06-4	inhalation hazard	Fair to poor; hygroscopic	YES
Ammonium Molybdate Tetrahydrate	Restricted	(NH4)6Mo7O24·4H2O	12054-85-2	toxic	Indefinite	NO
Ammonium Nitrate (500 g limit)	Restricted	NH4NO3	6484-52-2	shock sensitive; oxidizer	Poor; very hygroscopic	YES
Ammonium Nitrite	PROHIBITED	NH4NO2	13446-48-5	explosive	NA	NA
Ammonium Oxalate Monohydrate	Restricted	(NH4)2C2O4·H2O	6009-70-7	corrosive; toxic	Indefinite	NO
Ammonium Perchlorate	PROHIBITED	NH4ClO4	7790-98-9	strong oxidizer; explosive; irritant	NA	NA
Ammonium Periodate	PROHIBITED	NH4IO4	13446-11-2	strong oxidizer; explosive; irritant; inhalation hazard	NA	NA
Ammonium Permanganate	PROHIBITED	NH4MnO4	13446-10-1	explosive	NA	NA
Ammonium Persulfate (100 g limit)	DEMO ONLY	(NH4)2S2O8	7727-54-0	strong oxidizer; explosion hazard	Indefinite	NO
Ammonium Phosphate, Dibasic (Diammonium Hydrogen Phosphate)	Restricted	(NH4)2HPO4	7783-28-0	respiratory hazard; potential for skin and eye damage	Indefinite	NO
Ammonium Phosphate, Monobasic (Ammonium Dihydrogen Phosphate)	Restricted	NH4H2PO4	7722-76-1	respiratory hazard; potential for skin and eye damage	Indefinite	NO
Ammonium Sulfate	Restricted	(NH4)2SO4	7783-20-2	respiratory hazard	Indefinite	NO
Ammonium Sulfide	Restricted	(NH4)2S	12135-76-1	respiratory hazard; corrosive; poison; flammable	Good	NO
Ammonium Tartrate	Restricted	(NH4)2C4H4O6	3164-29-2	irritant	Fair	YES
Ammonium Tetraperoxychromate	PROHIBITED	(NH4)3CrO8		explosive	NA	NA
Ammonium Thiocyanate	Restricted	NH4SCN	1762-95-4	inhalation hazard; strong reducing agent	Poor; deliquescent	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Amyl Acetate	Restricted	CH ₃ COOC ₅ H ₁₁	628-63-7	flammable; toxic	Good	NO
Aniline	Restricted	C ₆ H ₅ NH ₂	62-53-3	acutely toxic	Poor	YES
Aniline Hydrochloride	Restricted	C ₆ H ₅ NH ₂ ·HCl	142-04-1	corrosive; acutely toxic	Poor	YES
Anisoyl Chloride (Methoxybenzoyl Chloride)	Restricted	C ₈ H ₇ ClO ₂	100-07-2	air- and water- reactive; corrosive;	Fair	YES
Antimony Compounds (e.g., triethyl stibine, tripropyl stibine, trivinyl stibine, antimony trichloride, antimony pentachloride, nickel antimonide)	PROHIBITED			dust fire and explosion hazard; poison; corrosive; reactive; some antimony compounds are possibly carcinogenic to humans	NA	NA
Antimony Metal (50 g limit)	DEMO ONLY	Sb	7440-36-0	poison; combustible powder; strong reducing agent	Indefinite	NO
Arsenic and Arsenic Compounds (e.g., lead arsenate, sodium arsenate, sodium arsenite, Trisilyl Arsine, arsine, arsenic trioxide)	PROHIBITED			carcinogenic to humans; poison	NA	NA
Azide Compounds (e.g., hydrogen azide, sodium azide, copper azide, lead (dinitride) azide)	PROHIBITED			acutely toxic; shock sensitive; explosive	NA	NA
Azidocarbonyl Guanidine	PROHIBITED	C ₂ H ₄ N ₆ O	54567-24-7	shock sensitive, explosive	NA	NA
Barium	PROHIBITED	Ba	7440-39-3	water-reactive; may ignite on contact with water or moist air; acutely toxic	NA	NA
Barium Acetate	Restricted	Ba(C ₂ H ₃ O ₂) ₂	543-80-6	acutely toxic	Indefinite	NO
Barium Carbide	Restricted	BaC ₂	50813-65-5	water-reactive; toxic	Fair	YES
Barium Chlorate	PROHIBITED	Ba(ClO ₃) ₂ ·H ₂ O	13477-00-4	explosive; strong oxidizer; toxic	NA	NA
Barium Chloride, Dihydrate	Restricted	BaCl ₂ ·2H ₂ O	10326-27-9	poison; acutely toxic	Indefinite	NO

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Barium Nitrate	Restricted	Ba(NO ₃) ₂	10022-31-8	oxidizer; toxic	Indefinite	NO
Barium Oxide (Anhydrous)	PROHIBITED	BaO	1304-28-5	poison; water-reactive	NA	NA
Barium Peroxide	PROHIBITED	BaO ₂	1304-29-6	poison; water-reactive; oxidizer	NA	NA
Benzaldehyde	Restricted	C ₆ H ₅ CHO	100-52-7	combustible	Fair	YES
Benzene	PROHIBITED	C ₆ H ₆	71-43-2	carcinogenic to humans; flammable	NA	NA
Benzene Diazonium Chloride	PROHIBITED	C ₆ H ₅ CIN ₂	100-34-5	explosive	NA	NA
Benzene Phosphorus Dichloride	Restricted	C ₆ H ₅ PCl ₂	644-97-3	air-and water-reactive; fumes in air; corrosive	Fair	YES
Benzoic Acid	Restricted	C ₆ H ₅ COOH	65-85-0	concentrated dust may form explosive mixture	Indefinite	NO
Benzotriazole	PROHIBITED	C ₆ H ₅ N ₃	95-14-7	explosive	NA	NA
Benzoyl Peroxide	PROHIBITED	(C ₆ H ₅ CO) ₂ O ₂	94-36-0	flammable; explosive; oxidizer; sensitizer; allergen; reacts violently with bases	NA	NA
Benzyl Alcohol	PROHIBITED	C ₆ H ₅ CH ₂ OH	100-51-6	reacts violently with oxidants; may form explosive peroxides upon concentration	NA	NA
Benzyl Chloride	Restricted	C ₆ H ₅ CH ₂ Cl	100-44-7	probably carcinogenic to humans; poison; corrosive; toxic; lachrymator; releases toxic fumes when heated	Fair	YES
Benzylamine (Benzenemethanamine)	Restricted	C ₆ H ₅ CH ₂ NH ₂	100-46-9	corrosive; poison; combustible	Fair	YES
Benzylsodium	Restricted	C ₇ H ₇ Na	1121-53-5	water reactive; ignites spontaneously in air;	Fair	YES
Beryllium Tetrahydroborate	Restricted	Be(BH ₄) ₂	17440-85-6	violently air- and water-reactive; beryllium compounds are carcinogenic to humans	Fair	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Biphenyl (Diphenyl)	Restricted	C6H5C6H5	92-52-4	irritant; combustible	Limited; refer to expiration date on label	YES
Bismuth Nitrate	PROHIBITED	Bi(NO3)3·5H2O	10035-06-0	strong oxidizer; contact with other material may cause fire; toxic	NA	NA
Bismuth Pentafluoride	Restricted	BiF5	7787-62-4	water-reactive; toxic	Fair	YES
Boranes and Diboranes (e.g., borane, tribromoborane, trifluoroborane, diborane, pentaborane, methylidiborane)	PROHIBITED			poison; flammable; water-reactive	NA	NA
Boric Acid	Restricted	H3BO3	10043-35-3	harmful if swallowed	Indefinite	NO
Boron Bromide Diiodide	Restricted	BBrI2	14355-21-6	violently water-reactive	Fair	YES
Boron Dibromiodide	Restricted	BBr2I	unavailable	violently water-reactive	Fair	YES
Boron Phosphide	Restricted	BP	20205-91-8	water-reactive	Fair	YES
Boron Trichloride	Restricted	BCl3	13517-10-7	water-reactive; toxic	Fair	YES
Bromine (3-1 g ampules limit)	DEMO ONLY	Br2	7726-95-6	strong oxidizer; reacts violently with organics; acutely toxic by inhalation and ingestion	Indefinite	NO
Bromine Fluoride	Restricted	BrF	13863-59-7	water-reactive	Fair	YES
Bromine Pentafluoride	PROHIBITED	BrF5	7789-30-2	oxidizer; poison; inhalation hazard; corrosive; reacts with water with explosive force	NA	NA
Bromine Trifluoride	PROHIBITED	BrF3	7787-71-5	oxidizer; poison; inhalation hazard; corrosive; reacts with water with explosive force	NA	NA
Bromine Water	Restricted	Br2 + H2O	7726-95-6	corrosive; irritating fumes; toxic	Indefinite	NO
Bromobenzene	Restricted	C6H5Br	108-86-1	highly flammable; toxic	Indefinite	NO
Bromodiethylaluminum	Restricted	C4H10AlBr	760-19-0	water-reactive	Fair	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Bromoform	Restricted	CHBr ₃	75-25-2	poison; lachrymator	Good	NO
Butadiene	PROHIBITED	C ₄ H ₆	106-99-0	may for explosive peroxides; carcinogenic to humans	NA	NA
Butanetriol Trinitrate (BTTN)	PROHIBITED	C ₄ H ₇ N ₃ O ₉	6659-60-5	explosive	NA	NA
Butanol (n-Butyl Alcohol)	Restricted	CH ₃ (CH ₂) ₃ OH	71-36-3	highly flammable; toxic	Fair	YES
Butyric Acid	Restricted	CH ₃ CH ₂ CH ₂ COOH	107-92-6	corrosive; combustible; stench agent; lachrymator	Indefinite	NO
Cadmium and Cadmium Compounds (e.g., cadmium hydroxide, cadmium oxide, cadmium sulfide)	PROHIBITED			carcinogenic to humans; highly toxic	NA	NA
Calcium (100 g limit)	Restricted	Ca	7440-70-2	water-reactive; flammable solid	Good	NO
Calcium Bromide	Restricted	CaBr ₂	7789-41-5	toxic	Good	NO
Calcium Carbide (100 g limit)	DEMO ONLY	CaC ₂	75-20-7	water-reactive; reacts violently with water to generate acetylene gas; serious fire risk	Good	NO
Calcium Hypochlorite	Restricted	Ca(ClO) ₂	7778-54-3	strong oxidizer; reactive; toxic	Fair to poor	YES
Calcium Nitrate Tetrahydrate	Restricted	Ca(NO ₃) ₂ ·4H ₂ O	13477-34-4	strong oxidizer; shock sensitive	Fair to poor; deliquescent	YES
Calcium Nitrate, Anhydrous	PROHIBITED	Ca(NO ₃) ₂	10124-37-5	strong oxidizer; may explode if shocked or heated	NA	NA
Calcium Permanganate	PROHIBITED	Ca(MnO ₄) ₂	10118-76-0	strong oxidizer	NA	NA
Calcium Phosphide (CP)	Restricted	Ca ₃ P ₂	1305-99-3	violently air- and water- reactive; strong reducing agent; poison	Fair	YES
Camphor	Restricted	C ₁₀ H ₁₆ O	76-22-2	toxic; flammable solid; combustible	Indefinite	NO
Carbon Disulfide (Carbon Bisulfide)	Restricted	CS ₂	75-15-0	highly flammable; poison; severe fire risk	Indefinite	NO
Carbon Tetrachloride	PROHIBITED	CCl ₄	56-23-5	possibly carcinogenic to humans; acutely toxic	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Cerium (IV) Sulfate (Ceric Sulfate)	Restricted	Ce(SO ₄) ₂	13590-82-4	strong oxidizer; corrosive; irritant	Limited; refer to expiration date on label	YES
Cesium Amide	Restricted	CsH ₂ N	22205-57-8	water-reactive	Fair	YES
Cesium Phosphide	Restricted	Cs ₃ P	113737-02-3	water-reactive	Fair	YES
Chloral Hydrate	PROHIBITED	CCl ₃ CH(OH) ₂	302-17-0	controlled barbiturate; probably carcinogenic to humans	NA	NA
Chlorine	PROHIBITED	Cl ₂	7782-50-5	oxidizer, corrosive, may be fatal if inhaled	NA	NA
Chlorine Dioxide	PROHIBITED	ClO ₂	10049-04-4	oxidizer; flammable and reactive; shock sensitive; explosive	NA	NA
Chlorine Fluoride	Restricted	ClF	7790-89-8	strong oxidizer; water-reactive	Fair	YES
Chlorine Pentafluoride	Restricted	ClF ₅	13637-63-3	water-reactive	Fair	YES
Chlorine Trifluoride	PROHIBITED	ClF ₃	7790-91-2	powerful oxidizer; explosive reaction with water and acids; poisonous if inhaled	NA	NA
Chlorine Trioxide	PROHIBITED	ClO ₃	13932-10-0	shock sensitive; explosive	NA	NA
Chloroacetic Acid	Restricted	C ₂ H ₃ ClO ₂	79-11-8	acutely toxic; corrosive	Indefinite	NO
Chloroacetyl Chloride	Restricted	C ₂ H ₂ Cl ₂ O	79-04-9	air- and water-reactive; corrosive; poison; inhalation hazard	Good	NO
Chloroacetylene	PROHIBITED	C ₂ HCl	593-63-5	shock sensitive; air reactive	NA	NA
Chlorobenzene	Restricted	C ₆ H ₅ Cl	108-90-7	highly flammable; inhalation hazard	Limited; refer to expiration date on label	YES
Chlorodiisobutyl Aluminum (Diisobutylaluminum Chloride)	Restricted	C ₈ H ₁₈ AlCl	1779-25-5	water-reactive; highly flammable	Fair	YES
Chloroform	PROHIBITED	CHCl ₃	67-66-3	poison; possibly carcinogenic to humans	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Chloropicrin	PROHIBITED	CCl3NO2	76-06-2	shock sensitive; explosive; poison; inhalation hazard	NA	NA
Chloroprene	PROHIBITED	C4H5Cl	126-99-8	may form explosive peroxides; possibly carcinogenic to humans	NA	NA
Chlorotrifluoroethylene	PROHIBITED	C2F3Cl	79-38-9	may form explosive peroxides	NA	NA
Chromic Acid	Restricted	CrO3	1333-82-0	chromium (VI) compounds are carcinogenic to humans; strong oxidizer; poison	Poor	YES
Chromic Chloride (Chromium (III) Chloride)	PROHIBITED	CrCl3·6H2O	10060-12-5	acutely toxic; fatal if inhaled	NA	NA
Chromium (III) Nitrate Nonahydrate (Chromium Trinitrate)	Restricted	Cr(NO3)3·9H2O	7789-02-8	oxidizer; toxic	Good	NO
Chromium (III) Sulfate (Chromic Sulfate)	Restricted	Cr2(SO4)3·nH2O	10101-53-8	corrosive; toxic	Indefinite	NO
Chromium (Powder)	PROHIBITED	Cr	7440-47-3	flammable; toxic	NA	NA
Chromium Oxide (Chromic Oxide) (20 g limit)	DEMO ONLY	Cr2O3	1308-38-9	strong oxidizer; poison; corrosive	Indefinite	NO
Chromium Trioxide	Restricted	CrO3	1333-82-0	chromium (VI) compounds are carcinogenic to humans; strong oxidizer; poison	Poor	YES
Chromyl Chloride	PROHIBITED	CrO2Cl2	14977-61-8	water-reactive; chromium (VI) compounds are carcinogenic to humans	NA	NA
Cobalt (II) Nitrate Hexahydrate (Cobaltous Nitrate)	Restricted	Co(NO3)2·6H2O	10026-22-9	cobalt and cobalt compounds are possibly carcinogenic to humans; acutely toxic	Poor; deliquescent	YES
Cobalt (Powder)	PROHIBITED	Co	7440-48-4	possibly carcinogenic to humans	NA	NA
Colchicine	PROHIBITED	C22H25NO6	64-86-8	acutely toxic	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Collodion (a solution of pyroxylin in ether and alcohol) (100 mL limit)	DEMO ONLY	C25H33O13(NO3)7	9004-70-0	highly flammable	Fair	YES
Copper (II) Bromide (Cupric Bromide, Anhydrous)	Restricted	CuBr2	7789-45-9	toxic; irritant	Poor; deliquescent	YES
Copper Acetylide	PROHIBITED	Cu2C2	1117-94-8	explosive	NA	NA
Cumene (Isopropylbenzene)	PROHIBITED	C6H5CH(CH3)2	98-82-8	may form explosive peroxides upon	NA	NA
Cycloheptanone	PROHIBITED	C7H12O	502-42-1	may form explosive peroxides; flammable; corrosive; toxic	NA	NA
Cyclohexane	Restricted	CH2(CH2)4CH2	110-82-7	highly flammable; poison	Indefinite	NO
Cyclohexanol	PROHIBITED	C6H11OH	108-93-0	may form explosive peroxides upon concentration	NA	NA
Cyclohexanone (100 mL limit)	DEMO ONLY	C6H10O	108-94-1	highly flammable; vapors may travel a considerable distance and ignite; may form explosive peroxides	Fair	YES
Cyclohexene (100 mL limit)	DEMO ONLY	C6H10	110-83-8	highly flammable; vapors may travel a considerable distance and ignite; may form explosive peroxides	Poor	YES
Cyclopentanone (100 mL limit)	DEMO ONLY	C5H8O	120-92-3	highly flammable; vapors may travel a considerable distance and ignite; may form explosive peroxides	Good	NO
Cyclopentene	PROHIBITED	C5H8	142-29-0	may form explosive peroxides upon concentration	NA	NA
Diacetylene (Butadiyne)	PROHIBITED	C4H2	460-12-8	may form explosive peroxides upon concentration; highly flammable; explosive	NA	NA
Diazidoethane	PROHIBITED	C2H4N6	629-13-0	explosive	NA	NA
Diazodinitrophenol (DDNP)	PROHIBITED	C6H2N4O5	4682-03-05	explosive	NA	NA
Diazomethane	PROHIBITED	CH2N2	334-88-3	poisonous and flammable gas	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Dichloromethane (Methylene Dichloride)	Restricted	CH ₂ Cl ₂	75-09-2	probably carcinogenic to humans; poison	Good	NO
Dicyclopentadiene	PROHIBITED	C ₁₀ H ₁₂	77-73-6	may form explosive peroxides upon concentration; acutely toxic; fatal if inhaled; flammable	NA	NA
Diethyl Aluminum Chloride	Restricted	C ₄ H ₁₀ AlCl	96-10-6	water-reactive; highly flammable; inhalation hazard	Fair	YES
Diethyl Zinc (DEZ)	Restricted	C ₄ H ₁₀ Zn	557-20-0	air- and water-reactive; highly flammable	Fair	YES
Diglyme (Diethylene Glycol Dimethyl Ether) (500 mL limit)	DEMO ONLY	(CH ₃ O) ₂ CH ₂	111-96-6	combustible; oxidizes readily in air to form explosive peroxides	Limited; refer to expiration date on label	YES
Diisopropyl Beryllium	Restricted	C ₆ H ₁₄ Be	15721-33-2	water-reactive; beryllium compounds are carcinogenic to humans	Fair	YES
Diisopropyl Ether	PROHIBITED	C ₆ H ₁₄ O	108-20-3	may form explosive peroxides	NA	NA
Dimethyl Magnesium	Restricted	C ₂ H ₆ Mg	2999-74-8	air- and water-reactive; spontaneously flammable in air	Fair	YES
Dinitrophenol	PROHIBITED	C ₆ H ₃ O ₂ (NO ₂) ₂	51-28-5	explosive	NA	NA
Dinitrophenylhydrazine (100 g limit)	DEMO ONLY	C ₆ H ₆ N ₄ O ₄	119-26-6	flammable solid; explosive when dry	Good	NO
Dioxane	PROHIBITED	C ₄ H ₈ O ₂	123-91-1	may form explosive peroxides upon concentration; possibly carcinogenic to humans	NA	NA
Dipentaerythritol Hexanitrate (DPEHN)	PROHIBITED	C ₁₀ H ₁₆ N ₆ O ₁₉	13184-80-0	explosive	NA	NA
Diphenylamine	Restricted	(C ₆ H ₅) ₂ NH	122-39-4	poison	Indefinite	NO
Diphenylmethane-4,4 Diisocyanate	Restricted	C ₁₅ H ₁₀ N ₂ O ₂	101-68-8	poison	Poor	YES
Disulfur Dinitride	PROHIBITED	S ₂ N ₂	25474-92-4	explosive	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Divinyl Acetylene	PROHIBITED	C ₆ H ₆	821-08-9	may form explosive peroxides; acutely toxic; highly flammable	NA	NA
Divinyl Ether	PROHIBITED	C ₄ H ₆ O ₂	109-93-3	may form explosive peroxides; highly flammable	NA	NA
Ethanol (Ethyl Alcohol)	Restricted	C ₂ H ₅ OH	64-17-5	highly flammable	Indefinite	NO
Ethyl Acetate	Restricted	CH ₃ COOC ₂ H ₅	141-78-6	highly flammable; toxic; may form explosive peroxides	Good	NO
Ethyl Ether (diethyl ether)	PROHIBITED	(C ₂ H ₅) ₂ O	60-29-7	may form explosive peroxides upon concentration	NA	NA
Ethyl Methacrylate	Restricted	CH ₂ CCH ₃ COOC ₂ H ₅	97-63-2	highly flammable; polymerizable	Poor	YES
Ethyl Nitrite	PROHIBITED	C ₂ H ₅ NO ₂	109-95-5	explosive	NA	NA
Ethylene Dichloride (1,2-Dichloroethane)	Restricted	C ₂ H ₄ Cl ₂	107-06-2	highly flammable; possibly carcinogenic to humans; poison; emits toxic gases if heated or burned	Poor	YES
Ethylene Glycol Dimethyl Ether (Glyme or 1,2-Dimethoxyethane)	PROHIBITED	C ₄ H ₁₀ O ₂	28923-39-9	may form explosive peroxides upon concentration	NA	NA
Ethylene Glycol Dinitrate (EGDN or 1,2-Dinitroxyethane)	PROHIBITED	C ₂ H ₄ N ₂ O ₆	628-96-6	explosive	NA	NA
Ethylene Oxide	PROHIBITED	C ₂ H ₄ O	75-21-8	carcinogenic to humans; flammable; explosive; may be fatal if inhaled or absorbed through the skin	NA	NA
Ethylenediamine	Restricted	NH ₂ CH ₂ CH ₂ NH ₂	107-15-3	highly flammable; air-reactive; corrosive	Poor	YES
FAA Solution (Formalin-Aceto-Alcohol)	Restricted			flammable; acutely toxic; carcinogenic to humans	Good	NO
Fehlings Solution A (Copper (II) Sulfate and Water)	Restricted			acutely toxic	Fair	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Fehlings Solution B (Sodium Hydroxide; Potassium Sodium Tartrate; and Water)	Restricted			caustic; toxic	Fair	YES
Ferric Chloride, Anhydrous (Iron (III) Chloride)	Restricted	FeCl ₃	7705-08-0	corrosive; inhalation hazard	Poor	YES
Ferric Nitrate Nonahydrate (Iron (III) Nitrate Nonahydrate)	Restricted	Fe(NO ₃) ₃ ·9H ₂ O	7782-61-8	strong oxidizer; irritant; explosion hazard with heat	Good	NO
Fluorine Monoxide (Oxygen Difluoride)	Restricted	F ₂ O	7783-41-7	strong oxidizer; air- and water-reactive; poison; corrosive	Fair	YES
Fluorosulfonic Acid	Restricted	HSO ₃ F	7789-21-1	corrosive; air- and water-reactive	Fair	YES
Formaldehyde	PROHIBITED	CH ₂ O	50-00-0	carcinogenic to humans; poison; may cause allergic reaction	NA	NA
Formalin	Restricted	CH ₂ O	50-00-0	toxic; corrosive; carcinogenic to humans	Indefinite	NO
Formic Acid	Restricted	HCOOH	64-18-6	flammable; corrosive	Poor	YES
Furan	PROHIBITED	C ₄ H ₄ O	110-00-9	possibly carcinogenic to humans; may form explosive peroxides upon concentration	NA	NA
Gasoline	Restricted	UNDEFINED	8006-61-9 or 86290-81-5	highly flammable; possibly carcinogenic to humans	Poor	YES
Glutaraldehyde	Restricted	OCH(CH ₂) ₃ CHO	111-30-8	water-reactive; toxic	Indefinite	NO
Glycerol Monolactate Trinitrate (GLTN)	PROHIBITED	C ₆ H ₉ N ₃ O ₁₁		explosive	NA	NA
Gold Acetylide	Restricted	C ₂ Au ₂	70950-00-4	explosive; shock sensitive; water reactive	Fair	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Grignard Reagents and their solvents Note: a Grignard Reagent has a formula RMgX where X is a halogen and R is an alkyl or aryl (based on a benzene ring) group. An example is CH ₃ CH ₂ MgBr (ethylmagnesium bromide). They are typically found in solution with tetrahydrofuran or ether as the solvent.	PROHIBITED			Both the Grignard Reagent and the solvents are hazardous. The Grignard Reagents can be highly reactive, corrosive, pyrophoric, and toxic. The solvents are highly flammable and may form explosive peroxides.	NA	NA
Guanyl Nitrosamino Guanylidene Hydrazine	PROHIBITED			explosive; strong oxidizer	NA	NA
Hematoxylin	Restricted	C ₁₆ H ₁₄ O ₆	517-28-2	toxic	Fair	YES
Hexamethylene Diisocyanate (HDI)	Restricted	C ₈ H ₁₂ N ₂ O ₂	822-06-0	water-reactive; toxic	Fair	YES
Hexamethylenediamine (1, 6-Diaminohexane)	Restricted	H ₂ N(CH ₂) ₆ NH ₂	124-09-4	corrosive; toxic	Indefinite	NO
Hexyl Alcohol	PROHIBITED	CH ₃ (CH ₂) ₄ CH ₂ OH	111-27-3	highly flammable; poison	NA	NA
HMX	PROHIBITED	C ₄ H ₈ N ₈ O ₈	2691-41-0	explosive	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Hydrides, Borohydrides (e.g., aluminum borohydride, aluminum hydride, magnesium lauminum hydride, phosphorous hydride, sodium borohydride)(100 g limit)	DEMO ONLY	Unavailable		strong reducing agents; air-and water-reactive	sodium borohydride: indefinite, phosphorous hydride: NA, magnesium lauminum hydride: NA, aluminum hydride: NA, aluminum borohydride: NA	YES
Hydriodic Acid	Restricted	HI	10034-85-2	acutely toxic; corrosive	Fair	YES
Hydrobromic Acid	Restricted	HBr	10035-10-6	acutely toxic; water-reactive; corrosive	Fair	YES
Hydrochloric Acid (Muriatic Acid)	Restricted	HCl	7647-01-0	toxic; severely corrosive	Good	NO
Hydrofluoric Acid	PROHIBITED	HF	7664-39-3	corrosive; may be fatal if inhaled or ingested; liquid and vapor can cause severe burns not always immediately painful or visible, but possibly fatal	NA	NA
Hydrogen (limited to lecture bottle of 4 cu. ft. or less)	DEMO ONLY	H ₂	13333-74-0	flammable gas; burns with a pale blue, almost invisible flame; may displace oxygen, which could cause asphyxiation; compressed gas cylinder hazards	Indefinite	NO
Hydrogen Peroxide (>30%)	PROHIBITED	H ₂ O ₂	7722-84-1	fire and explosion risk, severely corrosive; strong oxidizer	NA	NA
Hydrogen Peroxide (30% or less)	Restricted	H ₂ O ₂	7722-84-1	readily decomposes with almost anything; strong oxidizer; explosion hazard; corrosive	Fair to Poor	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Hydrogen Sulfide	PROHIBITED	H ₂ S	7783-06-4	highly flammable; exposure to very high concentrations causes immediate death; death or permanent injury may occur after very short exposure to small quantities	NA	NA
Hydroquinone (Benzene-1, 4-diol)	Restricted	C ₆ H ₄ (OH) ₂	123-31-9	toxic	Poor	YES
Hydroxylamine Hydrochloride	Restricted	NH ₂ OH·HCl	5470-11-1	toxic; strong reducing agent	Poor	YES
Iodine	Restricted	I ₂	7553-56-2	poison; strong oxidizing agent	Fair	YES
Iodine Monochloride (Chlorine Iodide)	Restricted	ICl	7790-99-0	toxic; water-and air-reactive; strong oxidizing agent; corrosive	Poor	YES
Iron (powder)	Restricted	Fe	7439-89-6	metal dust may present a fire hazard and a health hazard	Good	NO
Isoamyl Alcohol (3-Methyl 1-butanol or Isopentyl Alcohol)	Restricted	(CH ₃) ₂ CHCH ₂ CHOH	123-51-3	highly flammable; toxic	Fair	YES
Isobutyl Alcohol	Restricted	(CH ₃) ₂ CHCH ₂ OH	78-83-1	highly flammable; toxic	Indefinite	NO
Isopropyl Alcohol	Restricted	(CH ₃) ₂ CHOH	67-63-0	highly flammable; toxic; may form explosive peroxides	Fair	YES
Isopropyl Ether (Diisopropyl Ether)	PROHIBITED	C ₆ H ₁₄ O	108-20-3	highly flammable; may form explosive peroxides	NA	NA
Kerosene	Restricted	UNDEFINED	8008-20-6	highly flammable; toxic	Indefinite	NO
Lead Dinitrosorcinate (LDNR)	PROHIBITED	PbC ₆ H ₂ (NO ₂) ₂ (OH) ₂		explosive; probably carcinogenic to humans	NA	NA
Lead Dioxide (Lead (IV) Oxide or Lead Brown)	PROHIBITED	PbO ₂	1309-60-0	toxic; probably carcinogenic to humans; will accelerate burning in fire; may explode from heat or contamination	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Lead Mononitroresorcinate (LMNR)	PROHIBITED	PbC6H3NO2(OH)2	51317-24-9	explosive; shock sensitive; probably carcinogenic to humans	NA	NA
Lead Nitrate	Restricted	Pb(NO3)2	10099-74-8	oxidizer; toxic; probably carcinogenic to humans	Indefinite	NO
Lead Tetraoxide, (Red Lead Oxide)	Restricted	Pb3O4	1314-41-6	oxidizer; acutely toxic; probably carcinogenic to humans	Indefinite	NO
Lead Trinitroresorcinate (Lead Styphnate)	PROHIBITED	PbC6H(NO2)3(OH)2	15245-44-0	explosive; probably carcinogenic to humans	NA	NA
Lithium (20 g limit)	DEMO ONLY	Li	7439-93-2	water-reactive; highly flammable solid; readily ignited by and reacts with many extinguishing agents	Indefinite	NO
Lithium Amide	Restricted	LiNH2	7782-89-0	water-reactive; toxic; flammable; dangerous fire and explosion hazard	Fair	YES
Lithium Bromide	Restricted	LiBr	7550-35-8	acutely toxic	Good	NO
Lithium Ferrosilicon	Restricted	Fe-Si-Li	70399-13-2	water-reactive; acutely toxic; highly flammable	Fair	YES
Lithium Nitrate	PROHIBITED	LiNO3	7790-69-4	oxidizer; shock sensitive	NA	NA
Lithium Nitride	PROHIBITED	Li3N	26134-62-3	highly flammable; powder is easily ignited and burns with intense heat; may ignite spontaneously in moist air	NA	NA
Lithium Peroxide	PROHIBITED	Li2O2	12031-80-0	oxidizer; toxic; explosive	NA	NA
Lithium Silicon	Restricted	Li-Si	68848-64-6	water-and air-reactive; acutely toxic; strong reducing agent	Fair	YES
Lithium Sulfate	Restricted	Li2SO4·H2O	10102-25-7	toxic	Indefinite	NO
Magnesium (except Mg ribbon & turnings)	PROHIBITED	Mg	7439-95-4	reacts with water to liberate hydrogen gas; flammable solid; easily ignited	NA	NA
Magnesium (ribbon)	Restricted	Mg	7439-95-4	flammable solid; water-reactive	Indefinite	NO
Magnesium (turnings) (100 g limit)	DEMO ONLY	Mg	7439-95-4	water-reactive; flammable solid; strong reducing agent	Indefinite	NO

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Magnesium Nitrate Hexahydrate	Restricted	Mg(NO ₃) ₂ ·6H ₂ O	13446-18-9	oxidizer; toxic	Good	NO
Magnesium Peroxide	PROHIBITED	MgO ₂	14452-57-4	strong oxidizer	NA	NA
Manganese (II) Nitrate Hexahydrate (Manganous Nitrate Hexahydrate)	Restricted	Mn(NO ₃) ₂ ·6H ₂ O	10377-66-9	strong oxidizer; toxic	Indefinite	NO
Manganese Carbonate	Restricted	MnCO ₃	598-62-9	toxic	Good	NO
Manganese Dioxide (Manganese Black; Manganese Oxide; Manganese Peroxide; Manganese Superoxide)	Restricted	MnO ₂	1313-13-9	toxic	Indefinite	NO
Mannitol Hexanitrate	PROHIBITED	C ₆ H ₈ N ₆ O ₁₈	15825-70-4	explosive; strong oxidizer	NA	NA
Mercury (except in sealed devices)	PROHIBITED	Hg	7439-97-6	corrosive; poison; severely and subtly toxic	NA	NA
Mercury Compounds (e.g., Nessler's Reagent, mercuric chloride, mercuric potassium iodide, mercuric fluoride)	PROHIBITED			poison; severely and subtly toxic	NA	NA
meta-Trinitrocresol (3-Methyl-2,4,6-trinitrophenol)	PROHIBITED	C ₇ H ₅ N ₃ O ₇	602-99-3	explosive; strong oxidizer	NA	NA
Methyl Acetylene	PROHIBITED	C ₃ H ₄	74-99-7	highly flammable; may form explosive peroxides upon concentration	NA	NA
Methyl Alcohol (Methanol)	Restricted	CH ₃ OH	67-56-1	highly flammable; toxic	Good	NO
Methyl Aluminum Sesquibromide	Restricted	C ₃ H ₉ Al ₂ Br ₃	12263-85-3	water-and air-reactive; toxic; dangerous fire and explosion hazard	Fair	YES
Methyl Aluminum Sesquichloride	Restricted	C ₃ H ₉ Al ₂ Cl ₃	12542-85-7	water-and air-reactive; toxic; dangerous fire and explosion hazard	Fair	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Methyl Chloride (Chloromethane)	Restricted	CH ₃ Cl	74-87-3	highly flammable; toxic	Indefinite	NO
Methyl Cyclopentane	PROHIBITED	C ₆ H ₁₂	96-37-7	highly flammable	NA	NA
Methyl Isobutyl Ketone (4 Methyl-2-Pentanone or MIBK) (250 mL limit)	DEMO ONLY	CH ₃ COCH ₂ CH(CH ₃) ₂	108-10-1	highly flammable; vapors may travel a considerable distance and ignite; may form explosive peroxides; possibly carcinogenic to humans	Fair to Poor	YES
Methyl Isocyanate	PROHIBITED	CH ₃ NCO	624-83-9	water-reactive; highly flammable; polymerizable	NA	NA
Methyl Methacrylate Monomer	PROHIBITED	C ₅ H ₈ O ₂	80-62-6	may form explosive peroxides; flammable; explosive (vapor)	NA	NA
Naphthalene (Moth Balls, Moth Flakes)	Restricted	C ₁₀ H ₈	91-20-3	possibly carcinogenic to humans; highly flammable	Poor	YES
n-Butyllithium	Restricted	C ₄ H ₉ Li	109-72-8	spontaneously flammable in air; toxic	Limited; refer to expiration date on label	YES
Nessler's Reagent (Mercuric Potassium Iodide and Sodium Hydroxide)	PROHIBITED	Hg+KI+NaOH	7783-33-7		NA	NA
n-Heptane	Restricted	CH ₃ (CH ₂) ₅ CH ₃	142-82-5	highly flammable; toxic	Good	NO
n-Hexane	Restricted	CH ₃ (CH ₂) ₄ CH ₃	110-54-3	highly flammable; toxic	Good	NO
Nickel (II) Nitrate Hexahydrate	Restricted	Ni(NO ₃) ₂ ·6H ₂ O	13478-00-7	nickel compounds are carcinogenic to humans; oxidizer	Poor	YES
Nickel (II) Sulfate Hexahydrate	Restricted	NiSO ₄ ·6H ₂ O	10101-97-0	nickel compounds are carcinogenic to humans	Good	NO
Nicotine	PROHIBITED	C ₁₀ H ₁₄ N ₂	54-11-5	poison; acutely toxic	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Nitric Acid	Restricted	HNO ₃	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
Nitrobenzene	Restricted	C ₆ H ₅ NO ₂	98-95-3	possibly carcinogenic to humans; acutely toxic; flammable	Fair	Yes

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Nitrogen	Restricted	N ₂	7727-37-9	may displace oxygen, which could cause asphyxiation; compressed gas cylinder hazards; liquid nitrogen presents a low temperature hazards	Indefinite	NO
Nitroglycerin	PROHIBITED	C ₃ H ₅ N ₃ O ₉	55-63-0	explosive; strong oxidizer	NA	NA
Nitrosoguanidine	PROHIBITED	C ₂ H ₅ N ₅ O ₃	70-25-7	explosive; highly flammable; water-reactive; decomposes at elevated temperatures	NA	NA
Octyl Alcohol (Octanol or Caprylic Alcohol)	Restricted	CH ₃ (CH ₂) ₆ CH ₂ OH	111-87-5	flammable; toxic	Limited; refer to expiration date on label	YES
ortho-Dichlorobenzene (1, 2-Dichlorobenzene)	Restricted	C ₆ H ₄ Cl ₂	95-50-1	flammable; toxic	Fair to Poor	YES
ortho-Toluidine (e.g., Toluidine Blue)	PROHIBITED	C ₇ H ₉ N	95-53-4	carcinogenic to humans; poison	NA	NA
Osmic Acid (Osmium Tetroxide)	PROHIBITED	OsO ₄	20816-12-0	acutely toxic; may be fatal if inhaled or ingested	NA	NA
Oxalic Acid, Dihydrate (Ethanedioic Acid)	Restricted	H ₂ C ₂ O ₄ ·2H ₂ O	6153-56-6	acutely toxic	Indefinite	NO
Oxygen	Restricted	O ₂	7782-44-7	strong oxidizer; fire and explosion hazard; compressed gas cylinder hazards	Indefinite	NO
para-Dichlorobenzene (1, 4-Dichlorobenzene)	Restricted	C ₆ H ₄ Cl ₂	106-46-7	possibly carcinogenic to humans; flammable	Fair to Poor	YES
para-Nitrophenol (4-Nitrophenol)	PROHIBITED	NO ₂ C ₆ H ₄ OH	100-02-7	poison; forms explosive mixtures	NA	NA
Pentaerythrite Tetranitrate (PETN)	PROHIBITED	C ₅ H ₈ N ₄ O ₁₂	78-11-5	explosive; strong oxidizer	NA	NA
Pentane (100 mL limit)	DEMO ONLY	C ₅ H ₁₂	109-66-0	highly flammable	Indefinite	NO

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Pentyl Alcohol (Amyl Alcohol or Pentanol)	Restricted	CH ₃ (CH ₂) ₄ OH	71-41-0	highly flammable; toxic	Poor	YES
Perchloric Acid	PROHIBITED	HClO ₄	7601-90-3	strong oxidizing agent; corrosive; contact with organics may result in explosion; can cause serious or permanent injury	NA	NA
Petroleum Ether (500 mL limit)	Restricted	UNDEFINED	Unavailable	highly flammable; toxic	Indefinite	NO
Phenol	PROHIBITED	C ₆ H ₆ O	108-95-2	combustible; corrosive; may be fatal if inhaled, ingested, or absorbed through skin	NA	NA
Phenyl Thiourea	PROHIBITED	C ₇ H ₈ N ₂ S	103-85-5	extremely toxic; poison; emits toxic fumes when heated	NA	NA
Phosphides (e.g., magnesium aluminum phosphide, potassium phosphide, sodium phosphide)	PROHIBITED			poison; water-reactive	NA	NA
Phosphoric Acid	Restricted	H ₃ PO ₄	7664-38-2	toxic; corrosive	Good	NO
Phosphorus (yellow or white)	PROHIBITED	P	7723-14-0	flammable solid; self-ignition possible; evolves dangerous gas if burned	NA	NA
Phosphorus Halides and Oxides (e.g., phosphorus trichloride, phosphorus trioxide, phosphorus pentabromide)	PROHIBITED			water-reactive; corrosive; toxic	NA	NA
Phosphorus, Red (Amorphous) (50 g limit)	DEMO ONLY	P	7723-14-0	water-reactive; flammable solid; can change to white phosphorus if heated; strong reducing agent; acutely toxic	Indefinite	NO

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Phthalic Acid (1, 2 Benzenedicarboxylic Acid)	Restricted	C6H4(COOH)2	88-99-3	combustible; toxic	Limited; refer to expiration date on label	YES
Phthalic Anhydride	PROHIBITED	C8H4O3	85-44-9	explosive; water- reactive	NA	NA
Picramide	PROHIBITED	C6H4N4O6	489-98-5	explosive; strong oxidizing agent	NA	NA
Picrates and Picryl Compounds (e.g., ammonium picrate, lead picrate, potassium picrate, picryl sulfonic acid, picryl chloride)	PROHIBITED			explosive	NA	NA
Picric Acid (2,4,6-Trinitrophenol)	PROHIBITED	C6H3N3O7	88-89-1	extremely reactive; explosive when dry	NA	NA
Polymethylene Polyphenyl Isocyanate (Polymeric Diphenylmethane Diisocyanate or MDI)	Restricted	(C8H5NO)n	9016-87-9	water reactive; toxic	Fair	YES
Polyvinyl Alcohol	Restricted	CH2CH(OH)	9002-89-5	combustible; toxic	Indefinite	NO
Polyvinyl Nitrate (PVN or polyethenyl nitrate)	PROHIBITED	(C2H3NO3)n		explosive; shock sensitive	NA	NA
Potassium (1-container with 5 demonstration-size pieces)	DEMO ONLY	K	7440-09-7	violently water-reactive; may form explosive peroxides; combustible; flammable solid; ignites when exposed to water or moisture; may ignite spontaneously in air;	Poor	YES
Potassium Amide	PROHIBITED	KNH2	17242-52-3	may form explosive peroxides	NA	NA
Potassium Bromate	Restricted	KBrO3	7758-01-2	possibly carcinogenic to humans	Indefinite	NO
Potassium Chlorate (100 g limit)	DEMO ONLY	KClO3	3811-04-9	explosive; strong oxidizer	Indefinite	NO

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Potassium Chromate	Restricted	K ₂ CrO ₄	7789-00-6	chromium (VI) compounds are carcinogenic to humans; strong oxidizer; poison	Indefinite	NO
Potassium Cyanide	PROHIBITED	KCN	151-50-8	acutely toxic	NA	NA
Potassium Dichromate (Potassium Bichromate)	Restricted	K ₂ Cr ₂ O ₇	7778-50-9	chromium (VI) compounds are carcinogenic to humans; strong oxidizer; poison	Indefinite	NO
Potassium Dinitrobenzofuroxan (KDNBF)	PROHIBITED	KC ₆ H ₂ N ₄ O ₆	29267-75-2	explosive	NA	NA
Potassium Ferricyanide (Red Prussiate)	Restricted	K ₃ Fe(CN) ₆	13746-66-2	contact with acids liberates toxic gas	Fair	YES
Potassium Ferrocyanide (Tetrapotassium Hexacyanoferrate or Yellow Prussiate)	Restricted	K ₄ Fe(CN) ₆ ·3H ₂ O	14459-95-1	toxic; contact with acids liberates toxic gas	Fair to Poor	YES
Potassium Hydroxide (Potash Lye)	Restricted	KOH	1310-58-3	corrosive; toxic	Fair	YES
Potassium Iodate	Restricted	KIO ₃	7758-05-6	oxidizer; toxic	Indefinite	NO
Potassium Nitrate	Restricted	KNO ₃	7757-79-1	strong oxidizer	Good	NO
Potassium Nitrite	PROHIBITED	KNO ₂	7758-09-0	strong oxidizer	NA	NA
Potassium Perchlorate	PROHIBITED	KClO ₄	7778-74-7	explosive	NA	NA
Potassium Periodate	PROHIBITED	KIO ₄	7790-21-8	strong oxidizer	NA	NA
Potassium Permanganate	Restricted	KMnO ₄	7722-64-7	strong oxidizer; explodes on sudden heating	Indefinite	NO
Potassium Peroxide	PROHIBITED	K ₂ O ₂	17014-71-0	water-reactive; strong oxidizer	NA	NA
Potassium Persulfate	Restricted	K ₂ S ₂ O ₈	7727-21-1	strong oxidizer; toxic	Fair to poor; deliquescent	YES
Potassium Sulfide	Restricted	K ₂ S	1312-73-8	pyrophoric; spontaneously combustible; strong reducing agent; acutely toxic	Fair (3 Years)	YES

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Potassium Superoxide	PROHIBITED	KO ₂	12030-88-5	water-reactive; strong oxidizer	NA	NA
Propane	Restricted	CH ₃ CH ₂ CH ₃	74-98-6	highly flammable; compressed gas cylinder hazards; vaporizing liquid may cause frostbite; toxic; will displace oxygen, which may cause asphyxiation	Fair	YES
Propionic Acid	Restricted	C ₃ H ₆ O ₂	79-09-4	corrosive; flammable; toxic	Indefinite	NO
Propyl Alcohol (n-Propanol or Propanol)	Restricted	C ₃ H ₈ O	71-23-8	highly flammable; toxic	Indefinite	NO
Pyridine (Azine or Azabenzene)	Restricted	C ₅ H ₅ N	110-86-1	highly flammable; toxic	Good	NO
Pyrosulfuryl Chloride (Sulfur Pentoxydichloride)	Restricted	Cl ₂ O ₅ S ₂	7791-27-7	water- and air-reactive; corrosive; toxic	Fair	YES
RDX	PROHIBITED	C ₃ H ₆ N ₆ O ₆	121-82-4	explosive	NA	NA
Silanes and Chlorosilanes (e.g., silane; dichlorosilane; tetramethylsilane; trichlorosilane)	PROHIBITED			flammable; reactive; highly toxic	NA	NA
Silicon Tetrachloride	PROHIBITED	SiCl ₄	10026-04-7	air- and water-reactive; corrosive	NA	NA
Silver Acetylde	PROHIBITED	Ag ₂ C ₂	13092-75-6	explosive; shock sensitive	NA	NA
Silver Cyanate	PROHIBITED	AgOCN	3315-16-0	toxic	NA	NA
Silver Cyanide	PROHIBITED	AgCN	506-64-9	acutely toxic; may be fatal if inhaled, ingested, or absorbed through skin	NA	NA
Silver Dinitroresorcinate (Silver Styphnate)	PROHIBITED	Ag ₂ C ₆ H(NO ₃) ₂ (OH) ₂		reactive; ignitable; shock sensitive	NA	NA
Silver Fulminate	PROHIBITED	AgCNO	5610-59-3	explosive	NA	NA
Silver Nitrate	Restricted	AgNO ₃	7761-88-8	strong oxidizer; corrosive; toxic	Indefinite	NO
Silver Nitride	PROHIBITED	Ag ₃ N	20737-02-4	shock sensitive; explosive	NA	NA
Silver Oxalate	PROHIBITED	Ag ₂ C ₂ O ₄	533-51-7	shock sensitive	NA	NA

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Silver Oxide (100 g limit)	DEMO ONLY	Ag ₂ O	20667-12-3	strong oxidizer; contact with other material may cause fire	Indefinite	NO
Silver Sulfate	Restricted	Ag ₂ SO ₄	10294-26-5	toxic	Indefinite	NO
Silver Tetrazene	PROHIBITED			shock sensitive	NA	NA
Sodium (100 g limit)	DEMO ONLY	Na	7440-23-5	violently water-reactive; strong reducing agent; flammable solid; may ignite spontaneously in air	Good	NO
Sodium Amide	PROHIBITED	NaNH ₂	7782-92-5	may form explosive peroxides; water-reactive; highly flammable	NA	NA
Sodium Bisulfite	Restricted	NaHSO ₃	7631-90-5	strong reducing agent; corrosive; toxic	Fair to Poor	YES
Sodium Chlorate	PROHIBITED	NaClO ₃	7775-09-9	oxidizer; explosive	NA	NA
Sodium Chlorite	PROHIBITED	NaClO ₂	7758-19-2	oxidizer; explosive	NA	NA
Sodium Chromate	Restricted	Na ₂ CrO ₄	7775-11-3	chromium (VI) compounds are carcinogenic to humans; strong oxidizer; poison	Fair	YES
Sodium Cobaltinitrite (Sodium Hexanitrocobaltate)	Restricted	Na ₃ Co(NO ₂) ₆	13600-98-1	cobalt and cobalt compounds are possibly carcinogenic to humans; toxic	Indefinite	NO
Sodium Cyanide	PROHIBITED	NaCN	143-33-9	acutely toxic	NA	NA
Sodium Dichromate Dihydrate	Restricted	Na ₂ Cr ₂ O ₇ ·2H ₂ O	7789-12-0	chromium (VI) compounds are carcinogenic to humans; strong oxidizer; poison	Poor	YES
Sodium Dithionite (Sodium Hydrosulfite)	PROHIBITED	Na ₂ S ₂ O ₄	7775-14-6	spontaneously combustible; water-reactive; pyrophoric	NA	NA
Sodium Fluoride	Restricted	NaF	7681-49-4	corrosive; poison	Indefinite	NO
Sodium Hydroxide (Lye)	Restricted	NaOH	1310-73-2	water-reactive; corrosive; toxic	Good	NO
Sodium Hypochlorite	Restricted	NaClO	7681-52-9	strong oxidizer; corrosive; toxic	Poor	YES
Sodium Iodate	Restricted	NaIO ₃	7681-55-2	strong oxidizer; toxic	Fair to Poor	YES
Sodium Iodide	Restricted	NaI	7681-82-5	toxic	Fair to Poor	YES

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Sodium Metabisulfite	Restricted	Na ₂ S ₂ O ₅	7681-57-4	strong reducing agent; corrosive; toxic	Poor	YES
Sodium Methylate	PROHIBITED	NaCH ₃ O	124-41-4	spontaneously combustible; water-reactive; pyrophoric	NA	NA
Sodium Nitrate	Restricted	NaNO ₃	7631-99-4	strong oxidizer; toxic	Indefinite	NO
Sodium Nitrite	Restricted	NaNO ₂	7632-00-0	strong oxidizer; poison	Indefinite	NO
Sodium Perborate	PROHIBITED	NaBO ₃	7632-04-4	air- and water- reactive; explosive	NA	NA
Sodium Perchlorate	PROHIBITED	NaClO ₄	7601-89-0	oxidizer; water-reactive; explosive	NA	NA
Sodium Permanganate	PROHIBITED	NaMnO ₄	10101-50-5	oxidizer; explosive	NA	NA
Sodium Peroxide	PROHIBITED	Na ₂ O ₂	1313-60-6	oxidizer; water- reactive; toxic;	NA	NA
Sodium Phosphate Tribasic Dodecahydrate	Restricted	Na ₃ PO ₄ ·12H ₂ O	10101-89-0	corrosive; toxic	Fair	YES
Sodium Potassium Alloy	Restricted	K ₂ Na	11135-81-2	water-reactive; in contact with water releases flammable gases which may ignite spontaneously; corrosive	Fair	YES
Sodium Sulfide Nonahydrate	Restricted	Na ₂ S·9H ₂ O	1313-84-4	explosive; flammable solid; strong reducing agent; corrosive; toxic	Fair	YES
Sodium Thiocyanate	Restricted	NaSCN	540-72-7	strong reducing agent; toxic	Poor	YES
Sodium Thiosulfate Pentahydrate	Restricted	Na ₂ S ₂ O ₃ ·5H ₂ O	10102-17-7	toxic	Poor	YES
Stannic Chloride	Restricted	SnCl ₄	7646-78-8	air- and water-reactive; corrosive; toxic	Poor	YES
Strontium Nitrate	Restricted	Sr(NO ₃) ₂	10042-76-9	strong oxidizer	Indefinite	NO
Strontium Perchlorate	PROHIBITED	SrCl ₂ O ₈	13450-97-0	shock sensitive	NA	NA
Styrene Monomer	PROHIBITED	C ₈ H ₈	100-42-5	highly flammable; may form explosive peroxides; polymerizable	NA	NA
Sulfur Chloride (Sulfur Dichloride)	Restricted	Cl ₂ S ₂	10025-67-9	water-reactive; corrosive; toxic	Fair	YES
Sulfur Pentafluoride	Restricted	S ₂ F ₁₀	5714-22-7	water-reactive; poison	Fair	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Sulfur Trioxide	PROHIBITED	SO3	7446-11-9	air- and water-reactive; corrosive; poison; inhalation hazard	NA	NA
Sulfuric Acid (<10%)	Restricted	H2SO4	7664-93-9	strong oxidizer; severely corrosive; water-reactive; toxic	Good	NO
Sulfuric Acid (>10%) (2.5 L limit)	Restricted	H2SO4	7664-93-9	strong oxidizer; severely corrosive; water-reactive; toxic	Good	NO
Sulfuryl Chloride (Sulfonyl Chloride)	PROHIBITED	Cl2O2S	7791-25-5	air- and water-reactive; corrosive; poison; inhalation hazard	NA	NA
Sulfuryl Chloride Fluoride	PROHIBITED	ClFO2S	13637-84-8	poison; water-reactive; corrosive	NA	NA
Terpineol (Terpene Alcohol)	Restricted	C10H17OH	98-55-5	flammable; toxic	Indefinite	NO
tert-Butyl Alcohol (t-Butanol or 1,1-Dimethyl Ethanol)	Restricted	(CH3)3COH	75-65-0	highly flammable; irritating vapor and liquid	Fair	YES
tert-butyl Hypochlorite	PROHIBITED	C4H9ClO	507-40-4	spontaneously combustible; pyrophoric; fire will produce irritating, corrosive, and/or toxic gases	NA	NA
Tetrafluoroethylene	PROHIBITED	C2F4	116-14-3	may form explosive peroxides; highly flammable; probably carcinogenic to humans	NA	NA
Tetrahydrofuran	PROHIBITED	C4H8O	109-99-9	highly flammable; oxidizes in air to form explosive peroxides	NA	NA
Tetrahydronaphthalene	PROHIBITED	C10H12	119-64-2	highly flammable; vapors may form explosive mixtures with air; may form explosive peroxides upon concentration	NA	NA
Tetranitromethane	PROHIBITED	CN4O8	509-14-8	oxidizer; poison; possibly carcinogenic to humans; inhalation hazard; explosive	NA	NA
Tetraselenium Tetranitride	PROHIBITED	Se4N4	12033-88-4	shock sensitive	NA	NA
Tetrazene (tetrazolyl guanyltetrazene hydrate)	PROHIBITED	C2H6N10·H2O	31330-63-9	shock sensitive; explosive	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Tetryl (2,4,6 trinitrophenylmethylnitroamine)	PROHIBITED	C7H5N5O8	479-45-8	oxidizer; explosive	NA	NA
Thallium Nitride	PROHIBITED	Tl3N	12033-67-9	shock sensitive	NA	NA
Thermit (example: could be a mixture of aluminum powder, iron oxide, ferro managanese, and ferro vanadium)	PROHIBITED			flammable solid; dangerous fire risk; once started, reaction is very difficult to stop	NA	NA
Thermite Igniting Mixture (example: could be a mixture of aluminum, barium nitrate, iron oxide and a binder such as dextrin on a copper stick)	PROHIBITED			becomes a fire hazard if exposed to a flame or high temperatures	NA	NA
Thiocarbonyl Tetrachloride (Perchloromethyl Mercaptan)	PROHIBITED	CCl4S	594-42-3	poison; inhalation hazard	NA	NA
Thionyl Chloride	PROHIBITED	SOCl2	7719-09-7	violently water-reactive; lachrymator; highly corrosive; toxic	NA	NA
Thiophosphoryl Chloride	Restricted	Cl3SP	3982-91-0	air- and water- reactive; corrosive; toxic	Fair	YES
Tin	Restricted	Sn	7440-31-5	metal dust may present a fire hazard and a health hazard	Indefinite	NO
Titanium (Powder)	PROHIBITED	Ti	7440-32-6	spontaneously combustible; may ignite on contact with moist air or moisture	NA	NA
Titanium Tetrachloride	PROHIBITED	TiCl4	7550-45-0	water-reactive; corrosive; acutely toxic; may be fatal if inhaled	NA	NA
Toluene (Methyl Benzene)	Restricted	C7H8	108-88-3	highly flammable; toxic	Good	NO
Toluene Diisocyanate (TDI)	Restricted	C9H6N2O2	584-84-9	water-reactive; acutely toxic	Poor (6 months)	YES

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Trichloroethane-1,1,1 (Methyl Chloroform)	Restricted	C2H3Cl3	71-55-6	poison; flammable	Fair	YES
Trichloroethylene (Acetylene Trichloride)	Restricted	C2HCl3	79-01-6	carcinogenic to humans; poison; flammable	Indefinite	NO
Triethanolamine	Restricted	C6H15NO3	102-71-6	toxic	Fair	YES
Triethyl Aluminum	PROHIBITED	(C2H5)3Al	97-93-8	spontaneously combustible; flammable gas is produced on contact with water	NA	NA
Triisobutyl Aluminum	PROHIBITED	(C4H9)3Al	100-99-2	spontaneously combustible; reacts violently with water producing flammable gas	NA	NA
Trimethyl Aluminum	PROHIBITED	(CH3)3Al	75-24-1	spontaneously combustible; flammable gas is produced on contact with water	NA	NA
Tri-n-Butylaluminum	Restricted	C12H27Al	1116-70-7	air- and water- reactive; strong reducing agent; pyrophoric; toxic	Fair	YES
Trinitroanisole	PROHIBITED	C7H5N3O7	606-35-9	explosive; strong oxidizer	NA	NA
Trinitrobenzene	PROHIBITED	C6H3N3O6	99-35-4	explosive; flammable solid; strong oxidizer	NA	NA
Trinitrobenzoic Acid	PROHIBITED	C7H3N3O8	129-66-8 or 35860-50-5	explosive; highly flammable; strong oxidizer	NA	NA
Trinitronaphthalene (1,3,5-Trinitronaphthalene)	PROHIBITED	C10H5N3O6	2243-94-9	explosive; strong oxidizer	NA	NA
Trinitroresorcinol	PROHIBITED	C6H3N3O8	82-71-3	explosive; strong oxidizer	NA	NA
Trinitrotoluene (TNT or 2,4,6 Trinitrotoluene)	PROHIBITED	C7H5N3O6	118-96-7	explosive; strong oxidizer	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Trioctyl Aluminum	Restricted	(CH ₃ (CH ₂) ₇) ₃ Al	1070-00-4	water-reactive; acutely toxic; flammable	Poor (two years if stored under protective gas in sealed unopened original containers at a temperature less than 50°C.)	YES
Triphenyltetrazolium Chloride (Red Tetrazolium or Vitastain)	Restricted	C ₁₉ H ₁₅ N ₄ Cl	298-96-4	toxic	Good	NO
Trisodium Phosphate (Sodium Phosphate)	Restricted	Na ₃ PO ₄	7601-54-9	toxic	Indefinite	NO
Tungsten	Restricted	W	7440-33-7	metal dust may present a fire hazard and a health hazard.	Indefinite	NO
Turpentine	Restricted	C ₁₀ H ₁₆	8006-64-2	highly flammable; toxic	Indefinite	NO
Uranium and Uranium Compounds (e.g., uranium oxide, Uranyl Acetate, Uranyl Nitrate, uranium hexafluoride, uranium tetrafluoride)	PROHIBITED			toxic by inhalation or ingestion	NA	NA
Urea Nitrate	PROHIBITED	CH ₄ N ₂ O.HNO ₃	124-47-0	explosive; strong oxidizer	NA	NA
Vanadium Trichloride	Restricted	VCl ₃	7718-98-1	toxic; air- and water-reactive; corrosive	Fair	YES
Vinyl Acetate	PROHIBITED	C ₄ H ₆ O ₂	108-05-4	may form explosive peroxides; possibly carcinogenic to humans; reactive	NA	NA
Vinyl Acetylene	PROHIBITED	C ₄ H ₄	689-97-4	may form explosive peroxides; reactive	NA	NA

NAME	CHEMICAL CLASS	FORMULA	CAS #	Hazard	Shelf Life	Limited Shelf Life - Table 2 Required?
Vinyl Chloride	PROHIBITED	C2H3Cl	75-01-4	carcinogenic to humans; may form explosive peroxides; reactive	NA	NA
Vinyl Ethers (e.g., divinyl ether; 2-chloroethylvinyl ether; butyl vinyl ether)	PROHIBITED			may form explosive peroxides upon concentration	NA	NA
Vinylidene Chloride (1,1-Dichloroethene or	PROHIBITED	C2H2Cl2	75-35-4	may form explosive peroxides	NA	NA
Wright's Stain (Hg Containing) (100 mL limit)	DEMO ONLY	UNDEFINED	68988-92-1	contains mercury; poison; acutely toxic	Indefinite	NO
Xylene	Restricted	C8H10	1330-20-7	highly flammable; toxic by inhalation or absorption through skin.	Good	NO
Zinc (Powder)	Restricted	Zn	7440-66-6	strong reducing agent; water-reactive; pyrophoric; metal dust may present a fire hazard and a health hazard	Indefinite	NO
Zinc Acetylide	Restricted			shock sensitive; water-reactive	Fair	YES
Zinc Nitrate Hexahydrate (500 g limit)	Restricted	Zn(NO3)2·6H2O	10196-18-6	strong oxidizer	Indefinite	NO
Zinc Peroxide	PROHIBITED	ZnO2	1314-22-3	oxidizer; used as an oxidant in explosives; toxic	NA	NA
Zinc Phosphide	Restricted	Zn3P2	1314-84-7	strong reducing agent; water reactive; toxic	Fair (3 Years)	YES