



science safety

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Necessary Chemicals for 9-12 Science Programs

These chemicals represent the most used compounds for high school science education programs (9-12) to demonstrate chemical properties, reactions, and interactions. These chemicals are used to illustrate many of these concepts and will allow your secondary school science program to offer a robust number of hands-on activities and demonstration experiences for your students. These will need to be stored appropriately in the chemical storeroom using safety cabinets and open shelving, and their wastes will need to be managed according to the local protocols covered in your Chemical Hygiene Plan. These are provided to you as a courtesy based on decades of responsible chemical use in high school programs in the USA and Canada. Refer to your local guidance on chemical procurement, handling and storage procedures in your school district.

Necessary Chemicals for 9-12 Science Programs	Present in Lab
Acetic Acid, Reagent, 500 mL	
Acetone, Reagent, 500 mL	
Aluminum Potassium Sulfate, Lab Grade, 500 g	
Ammonium Chloride, 500 g	
Ammonium Hydroxide Soln, 1 M	
Ammonium Sulfate, Reagent, 100 g	
Benedict's Qualitative Solution, 1 L	
Biuret Test Solution, 500 mL	
Boiling Stones, 100 g	
Bromocresol Green Soln. 0.04%, 100 mL	
Bromthymol Blue Indicator Solution, 0.04%, 500 mL	
Buffer Solution, pH 10.00, 500 mL, Blue	
Buffer Solution, pH 4.00, 500 mL, Red	
Buffer Solution, pH 7.00, 500 mL, Green	
Calcium Carbide, 500 g	
Calcium Carbonate, Lab Grade, 100 g	
Calcium Carbonate, Lab Grade, 500 g	
Calcium Chloride, Lab Grade, 500 g	
Calcium Hydroxide, Lab Grade, 500 g	
Chromatography Solvent, 500 mL	
Copper(II) Chloride, Reagent, 500 g	
Copper(II) Oxide, 100 g, Reagent	
Copper(II) Sulfate, Fine Crystal, Reagent, 500 g	
Dextrose, Anhydrous, Reagent, 500 g	
Ethyl Alcohol, 95%, 500 mL	

Hydrochloric Acid Soln 6 M 1000 mL	
Hydrochloric Acid Solution, 3 M, 500 mL	
Hydrochloric Acid, 1 M, 500 mL	
Hydrogen Peroxide, 30%, Reagent, 500 mL	
Hydrogen Peroxide, 6%, 500 mL, Lab Grade	
Iodine Solution, Lugol's, 500 mL	
Iron Metal Filings, 500 g	
Iron(II) Sulfate, 500 g	
Isopropyl Alcohol, 70%, 500 mL, Lab Grade	
Limewater Solution, 4 L	
Magnesium Hydroxide Soln Saturated, 500 mL	
Magnesium Metal Ribbon, 25 g, Approx. 90 Feet	
Marble Chips, 500 g	
Methylene Blue Solution, 1%, Aqueous, 500 mL	
Mineral Oil, Light, 500 mL	
N-Butyl Alcohol, Reagent, 500 mL	
Nutrient Agar, 500 g	
Phenolphthalein Solution 1%, 500 mL	
Polyvinyl Alcohol Solution, 4%, Aqueous, 4 L	
Potassium Chlorate, Lab Grade, 500 g	
Potassium Hydroxide, Reagent, 500 g	
Potassium Permanganate, Reagent, 500 g	
Sec-Butyl Alcohol, 500 mL	
Silver Nitrate, Reagent, 25 g	
Sodium Bicarbonate, Laboratory Grade, 2 kg	
Sodium Carbonate, Anhydrous, Laboratory Grade, 500 g	
Sodium Carbonate, Mono, Reagent, 500 g	
Sodium Chloride, Laboratory Grade, 2 kg	
Sodium Hydroxide Soln, 0.5 M, 500 mL	
Sodium Hydroxide, Reagent, 500 g	
Starch, Corn, 500 g	
Starch, Soluble, Potato, 100 g	
Sulfuric Acid Solution, 1.0 M, 1 L	
Universal Indicator Solution, 500 mL	
Water, Distilled, 4 L	
Zinc Chloride, 500 g	
Zinc Nitrate Soln 0.1 M, 500 mL	
Zinc Strips 10/Pkg	
Zinc Sulfate, 500 g, Lab Grade	
Zinc, Mossy, 500 g	