

Chemical Inventory List - Biology Department

Lab Name: Plant Biology Lab

Lab No: 07-D-0-18

Inventory Conducted by: Dr. Doaa A. Alhosainy

Date: 3 / 2026

SN	Chemical Name	Formula	Container Size	No. of Containers	Physical State	Hazard Class	Safety Notes (Remarks)
1	Nutrient Agar	Complex Mixture	500 g	13	Solid	Non-Hazardous	Keep Dry / Tighten Cap
2	Sabouraud Dextrose Broth	Complex Mixture	500 g	1	Solid	Non-Hazardous	Keep Dry / Tighten Cap
3	MacConkey Broth	Complex Mixture	500 g	1	Solid	Non-Hazardous / Irritant (Low risk)	Keep Dry / Tighten Cap
4	Methyl Cellulose	C ₂₀ H ₃₈ O ₁₁	500 g	1	Solid	Non-Hazardous	Keep Dry / Tighten Cap
5	Sodium Sulfate (Anhydrous)	Na ₂ SO ₄	500 g	2	Solid	Non-Hazardous	Hygroscopic / Keep Dry / Tighten Cap
6	Sodium Oxalate	Na ₂ C ₂ O ₄	500 g	1	Solid	Toxic Substance	Toxic if swallowed or inhaled. Avoid contact with strong acids and oxidizers.
7	Sodium Carbonate	Na ₂ CO ₃	1000 g	3	Solid	Serious Eye Damage/Eye Irritation	Hygroscopic. Causes serious eye irritation. Incompatible with strong acids, strong oxidizing agents, fluorine, and metals.
8	Sodium Dichromate	Na ₂ Cr ₂ O ₇	500 g	1	Solid	Acute Toxicity Inhalation/Dermal, Skin Corrosion, Serious Eye Damage, Respiratory Sensitization, Carcinogenicity, Reproductive Toxicity	Highly toxic if swallowed and fatal if inhaled. May cause cancer and genetic defects. Strong oxidizer; keep away from combustible materials.
9	Sodium Chloride	NaCl	1000 g	3	Solid	Non-Hazardous	Keep Dry / Tighten Cap
10	Sodium Benzoate	C ₇ H ₅ NaO ₂	1000 g	1	Solid	Irritant	Dust Irritant / Avoid Inhalation / Keep Dry / Incompatible with Strong Oxidizers

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11	Sodium bromide	NaBr	100 g	1	Solid	Reproductive toxicity& Irritant	Hygroscopic. Keep dry / Tighten Cap. May cause eye and skin irritation.
12	Sodium nitroprusside	$\text{Na}_2[\text{Fe}(\text{CN})_5\text{NO}] \cdot 2\text{H}_2\text{O}$	500 g + 250 g	2	Solid	Acute toxicity	Toxic if swallowed; wash skin thoroughly after handling and store locked up in a tightly closed, dry, and well-ventilated place.
13	Disodium hydrogen citrate sesquihydrate	$\text{C}_6\text{H}_6\text{Na}_2\text{O}_7 \cdot 1.5\text{H}_2\text{O}$	250 g	2	Solid	Non-Hazardous	Not classified as dangerous; keep the container tightly closed in a dry and well-ventilated place.
14	Disodium hydrogen Orthophosphate anhydrous	Na_2HPO_4	1000 g	1	Solid	Non-Hazardous	Not classified as dangerous; keep the container tightly closed in a dry and well-ventilated place. It is hygroscopic.
15	Ethylenediaminetetraacetic acid, disodium salt dihydrate. (EDTA disodium salt)	$\text{C}_{10}\text{H}_{14}\text{N}_2\text{Na}_2\text{O}_8 \cdot 2\text{H}_2\text{O}$	500 g	1	Solid	Acute Toxicity	Harmful if inhaled; may cause damage to organs (Respiratory system) through prolonged or repeated exposure; avoid breathing dust and store in a cool, dry place.
16	Trisodium citrate dihydrate	$\text{C}_6\text{H}_5\text{Na}_3\text{O}_7 \cdot 2\text{H}_2\text{O}$	500 g	2	Solid	Non-Hazardous	Not a hazardous substance; keep the container tightly closed in a dry place.
17	Potassium hydrogen phthalate	$\text{C}_8\text{H}_5\text{KO}_4$	250 g	1	Solid	Non-Hazardous	Low toxicity. May cause mild eye or skin irritation. Stable under normal conditions. Not hygroscopic.

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18	Potassium Bromate	KBrO ₃	250 g	1	Solid	Acute toxicity, Carcinogen	Strong oxidizer; may cause fire or explosion. Toxic if swallowed. May cause cancer. Store locked up and away from combustible materials.
19	Potassium Nitrate	KNO ₃	500 g	1	Solid	Oxidizing solids	Oxidizer; may intensify fire. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources.
20	Potassium Chloride	KCl	1000 g	1	Solid	Non-Hazardous	Non-combustible. Wash hands after use and avoid eating or drinking in work areas.
21	Magnesium Chloride	MgCl ₂	500 g	4	Solid	Non-Hazardous (but causes exothermic reaction)	Highly Hygroscopic / Tighten Cap / Reacts with water to produce heat.
22	Magnesium Sulfate Heptahydrate	MgSO ₄ · 7H ₂ O	500 g	1	Solid	Non-Hazardous	Keep Dry / Tighten Cap / Stable at Room Temperature
23	Zinc Sulphate Heptahydrate	ZnSO ₄ · 7H ₂ O	500 g	1	Solid	Acute Toxicity, Serious Eye Damage and Aquatic Chronic	Harmful if swallowed. Causes serious eye damage. Very toxic to aquatic life with long-lasting effects. Avoid release to the environment.
24	Ammonium Acetate	CH ₃ CO ₂ NH ₄	500 g	1	Solid	Non-Hazardous	Hygroscopic. Maintain good industrial hygiene. Wash hands after handling.
25	Ammonium Formate	NH ₄ HCO ₂	500 g	3	Solid	Causes skin, eye and respiratory irritation.	Causes skin and serious eye irritation. May cause respiratory irritation. Avoid breathing dust. Store in a cool, dry place as it is hygroscopic

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26	Ferrous Chloride	FeCl_2	500 g	1	Solid	Corrosive & Toxic	Highly Hygroscopic! Reacts with moisture in the air. Corrosive to skin, eyes, and respiratory system
27	Strontium Chloride	SrCl_2	500 g	1	Solid	Serious eye damage	Danger: Causes serious eye damage. Wear protective gloves, clothing, and eye/face protection.
28	Lactose	$\text{C}_{12}\text{H}_{22}\text{O}_{11}$	500 g	1	Solid	Non-Hazardous	Not classified as dangerous. Generally safe. Avoid creating excessive dust to prevent mild respiratory irritation.
29	Silica Gel Self Indicating (Coarse-Blue)	SiO_2	500 g	1	Solid	Environmental Hazard	Contains Cobalt Chloride. Avoid skin contact and inhalation of dust.
30	Silica Gel for column chromatography	SiO_2	1000 g	1	Solid	Not Classified as Hazardous (Physical Irritant)	Avoid breathing dust. Prolonged inhalation of fine particles can cause lung irritation.
31	Agarose	$\text{C}_{12}\text{H}_{18}\text{O}_9$	100 g	1	Solid	Non-Hazardous	Not a hazardous substance; keep the container tightly closed in a dry place.
32	Citric acid	$\text{C}_6\text{H}_8\text{O}_7$	1000 g + 500g	2	Solid	Irritant	Causes serious eye irritation. Dust may irritate the respiratory system. Incompatible with strong bases and oxidizing agent.
33	Tartaric acid	$\text{C}_4\text{H}_6\text{O}_6$	1000 g	1	Solid	Serious Eye Damage/Eye Irritation	Causes serious eye damage. Wear eye protection and face protection.

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34	Benzoic acid	$C_7H_6O_2$	250 g	1	Solid	Skin and eye irritation, Lungs (Inhalation).	Causes serious eye damage and skin irritation. Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled. Wear protective gloves and eye protection.
35	4-Bromobenzoic acid	$C_7H_5BrO_2$	100 g	1	Solid	Causes skin, eye and respiratory irritation.	Causes skin and serious eye irritation. May cause respiratory irritation. Avoid breathing dust and wear protective equipment.
36	L (+) Ascorbic Acid (Vitamin C)	$C_6H_8O_6$	250 g	1	Solid	Non-Hazardous	Not a hazardous substance; keep the container tightly closed in a dry and well-ventilated place. Sensitive to light and air.
37	Calcium hydroxide	$Ca(OH)_2$	500 g	1	Solid	Corrosive Substance	Causes serious eye damage and skin irritation. Corrosive to metals. Incompatible with strong acids. Store in a dry place to prevent "carbonation"
38	Potassium hydroxide pellets	KOH	2000 g	1	Solid	Corrosive Substance	Danger: Causes severe skin burns and eye damage. Highly exothermic when dissolved in water (generates heat). Harmful if swallowed.
39	AMBERLITE(R) IR-120 H	Sulfonated copolymer of styrene and divinylbenzene in hydrogen form	500 g	1	Solid	Serious Eye Damage/Eye Irritation	Causes serious eye irritation. Wear protective gloves, protective clothing, eye protection, and face protection.

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40	Dimethylglyoxime	$C_4H_8N_2O_2$	100 g	2	Solid	Flammable solid	Flammable solid; keep away from heat, sparks, open flames, and hot surfaces. No smoking. Store in a cool, well-ventilated place.
41	Vanillin	$C_8H_8O_3$	100 g	1	Solid	Acute toxicity & Eye irritation	Hygroscopic; keep dry in a tightly closed container and use in a fume hood.
42	Vitamin B12	$C_{63}H_{88}CoN_{14}O_{14}P$	5 g	6	Solid	Non-Hazardous	Not hazardous, avoid inhalation of dust and contact with eyes or skin.
43	L Tyrosine	$C_9H_{11}NO_3$	100 g	1	Solid	Non-Hazardous	Not classified as dangerous; keep the container tightly closed in a dry and well-ventilated place.
44	Acetanilide	C_8H_9NO	500 g	1	Solid	Acute Toxicity	Harmful if swallowed. Wash hands and exposed skin thoroughly after handling.
45	Glycerin	$C_3H_8O_3$	1 L	1	Viscous Liquid	Non-Hazardous	Keep Dry / Tighten Cap
46	Chloroform	$CHCl_3$	2.5 L	18	Liquid	Toxic / Carcinogen	use in Fume Hood only. Avoid inhalation.
47	Dimethyl sulfoxide (DMSO)	C_2H_6OS	2.5 L	4	Liquid	Combustible / Irritant	Rapidly penetrates skin. Wear Double Glove
48	Methanol	CH_3OH	1 L	1	Liquid	Flammable / Toxic / Health Hazard	Store in Flammables Cabinet. Poisonous if inhaled or swallowed. Use in Fume Hood.