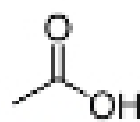


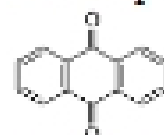
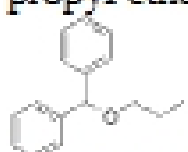
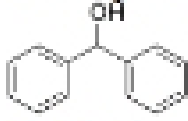
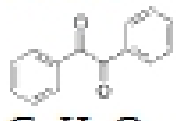
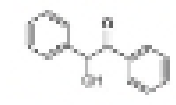
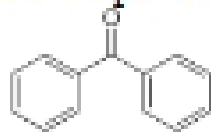
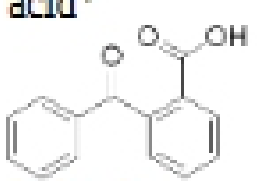
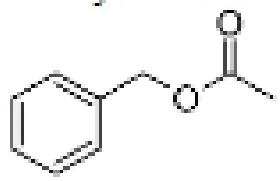

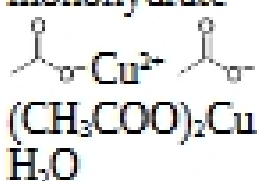







MSDS INFORMATION SHEET


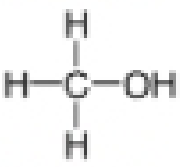



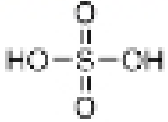
CHEMICAL TABLE: Source website – <http://www.sciencelab.com/msdsList.php>

Chemical	MW (g/mole)	BP/MP °(C)	SG (g/ml)	Amt. required / produced	HAZARDS/ Precautions
Acetic acid  C ₂ H ₄ O ₂	60.05	118.1°C/ 16.6°C	1.049		<ul style="list-style-type: none"> • Flammable, corrosive • Hazardous skin/eye contact, ingestion + inhalation. • Use goggles, lab coat, gloves, and ventilation
Ammonia  NH ₃	35.05	BP: not availabl e MP: - 69.2°C	0.898		<ul style="list-style-type: none"> • Corrosive, poisonous • Very hazardous skin/eye contact, ingestion, inhalation. • Use goggles, lab coat, gloves, and ventilation
Anthracene C ₁₄ H ₁₀ 	178.22	342°C / 218°C	1.25		<ul style="list-style-type: none"> • May be combustible at high temp. • Carcinogen, irritant, sensitizer, and permeator. Hazardous skin/eye contact, inhalation + ingestion • Use goggles, lab coat, gloves, and ventilation
Anthraquinone  C ₁₄ H ₈ O ₂	208.22	377°C/ 284 to 286°C	1.44		<ul style="list-style-type: none"> • Slightly hazardous skin/eye contact, ingestion, inhalation • Use goggles, lab coat, gloves, and ventilation
Benzhydryl-1- propyl ether* 		200°C at 500 mm Hg			<ul style="list-style-type: none"> • Flammable • Hazardous • Use goggles, lab coat, gloves, ventilation
Benzhydrol  C ₁₃ H ₁₂ O	184.24	298°C/ 66°C	Not avail.		<ul style="list-style-type: none"> • May be combustible at high temp • Hazardous skin/eye contact, ingestion + inhalation. • Use goggles, lab coat, gloves, ventilation
Benzil  C ₁₄ H ₁₀ O ₂	210.23	BP: not availabl e MP: 95°C	Not availabl e		<ul style="list-style-type: none"> • May be combustible at high temperatures • Hazardous skin/eye contact, inhalation. • Use goggles, lab coat, gloves, and ventilation
Benzoin  C ₁₄ H ₁₂ O ₂	212.26	343°C/ 137°C	1.31		<ul style="list-style-type: none"> • May be combustible at high temp • Hazardous skin/eye contact; Very hazardous ingestion + inhalation. • Use goggles, lab coat, gloves, and ventilation
Benzophenone  C ₁₃ H ₁₀ O	182.22	305.4°C/ 49°C	1.1108	1.5 g	<ul style="list-style-type: none"> • May be combustible at high temp • Hazardous in skin contact, eye contact, ingestion + inhalation. • Use goggles, lab coat, gloves, ventilation
2-	226.23	257-	Not		<ul style="list-style-type: none"> • Hazardous skin/eye contact, ingestion +

MSDS INFORMATION SHEET

benzoylbenzoic acid*  $C_{14}H_{10}O_3$		265°C/ 126- 130°C	available		inhalation. <ul style="list-style-type: none"> Use goggles, lab coat, gloves, and ventilation
Benzyl acetate  $C_6H_5CH_2OCOC$ H_3	150.18	210 °C/ -51 °C	1.04	5.555 ml (5.7772 g)	<ul style="list-style-type: none"> Combustible, flammable irritant Hazardous skin + eye contact, ingestion, inhalation Use goggles, lab coat, gloves, ventilation
Benzyl alcohol  $C_6H_5CH_2OH$	108.14	205.3°C/ -15.2°C	1.04	4 ml	<ul style="list-style-type: none"> Combustible and flammable Permeator + irritant Hazardous skin/eye contact, inhalation + ingestion Use goggles, lab coat, gloves and ventilation
Calcium chloride (pellets)	110.99	1670°C/ 772°C	2.15	<3 g	<ul style="list-style-type: none"> Irritant + permeator Hazardous skin and eye contact, ingestion, inhalation Use goggles, lab coat, gloves, ventilation
Cupric acetate monohydrate  $(CH_3COO)_2Cu$ H_2O	199.65	BP: decomp oses MP: 115°C	1.882		<ul style="list-style-type: none"> May be combustible at high temp Hazardous skin/eye contact; Very hazardous ingestion + inhalation. Use goggles, lab coat, gloves, and ventilation
di- <i>n</i> -propyl ether**  $C_6H_{14}O$	102.17	88- 90°C/ -123°C	0.736	Possible side product	<ul style="list-style-type: none"> Highly flammable Hazardous skin/eye contact, ingestion + inhalation. Use goggles, lab coat, gloves, and ventilation
Ethanol  CH_3CH_2OH	46.07	78.5°C/ -114.1 °C	0.789		<ul style="list-style-type: none"> Flammable Irritant and permeator: Hazardous skin/eye contact, inhalation + ingestion Use goggles, lab coat, gloves, ventilation
Ethyl acetate  $C_4H_8O_2$	88.11	77°C/ -83°C	0.902	.5 ml	<ul style="list-style-type: none"> Flammable Hazardous ingestion + inhalation. Slightly hazardous skin + eye contact Toxic to mucous membranes Use goggles, lab coat, gloves, ventilation
Heptane  C_7H_{16}	100.21	98.4°C/ -90.7°C	0.6838	15 ml	<ul style="list-style-type: none"> Flammable Slightly hazardous skin/eye contact, ingestion, inhalation. Use goggles, lab coat, gloves, and ventilation
Hexane  C_6H_{14}	86.18	68°C/ -95°C	0.66	1.5 ml	<ul style="list-style-type: none"> Flammable Hazardous skin contact, ingestion + inhalation. Slightly hazardous skin + eye

MSDS INFORMATION SHEET

					<ul style="list-style-type: none"> contact. Use goggles, lab coat, gloves, ventilation
Magnesium sulfate, anhydrous MgSO_4	120.38	Not available	Not available	Enough pellets to cover bottom of Erlenmeyer flask	<ul style="list-style-type: none"> Hazardous ingestion; slightly hazardous skin/eye contact, inhalation Use goggles, lab coat, gloves, and ventilation
Maleic anhydride  $\text{C}_4\text{H}_2\text{O}_3$	98.06	202°C / 52.8°C	1.48		<ul style="list-style-type: none"> May be combustible at high temp. Irritant, permeator: Hazardous skin contact, eye contact, ingestion + inhalation; corrosive to eyes and skin Use goggles, lab coat, gloves, and ventilation
Methanol  CH_3OH	32.04	64.5°C / -97.8°C	0.7915	9 ml	<ul style="list-style-type: none"> Flammable liquid and vapor Hazardous skin contact, eye contact, ingestion + inhalation. Toxic to eyes Use goggles, lab coat, gloves ventilation
Methylene chloride  CH_2Cl_2	84.93	39.75°C / -96.7°C	1.3266	< 1 ml	<ul style="list-style-type: none"> May be combustible at high temp Very hazardous in eye contact, ingestion + inhalation. Hazardous in skin contact. Potential carcinogen. Use goggles, lab coat, gloves, ventilation
1-propanol  $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$	60.1	97.22°C / -126.2°C	0.8053	12 ml	<ul style="list-style-type: none"> Highly flammable Hazardous skin/eye contact, ingestion + inhalation. Use goggles, lab coat, gloves, and ventilation
Sodium borohydride  NaBH_4	37.84	BP: not available MP: decomposes	1.074	150 mg	<ul style="list-style-type: none"> Flammable and corrosive. Extremely hazardous skin and eye contact, ingestion + inhalation. Use goggles, lab coat, gloves ventilation.
Sodium carbonate NaCO_3	105.99	BP: not available MP: 851°C	2.532	0.53 g	<ul style="list-style-type: none"> Hazardous skin/eye contact, ingestion + inhalation. Use goggles, lab coat, gloves, and ventilation
Sodium chloride NaCl	58.44	1413°C / 801°C	2.165	≥5.385 g	<ul style="list-style-type: none"> Slightly hazardous skin/eye contact, ingestion, inhalation Use goggles, lab coat, gloves
Sodium hydroxide NaOH	40	1388°C / 323°C	2.13		<ul style="list-style-type: none"> Corrosive, Irritant, Permeator Causes burns by all exposure routes Use only in hood/ corrosives area Use goggles, lab coat gloves + ventilation
Sulfuric acid  H_2SO_4	98.08	BP: 270 to 340°C (decomposes) MP: -	1.84	8 drops	<ul style="list-style-type: none"> Corrosive, irritant, permeator Hazardous skin/eye contact, ingestion + inhalation. Use goggles, lab coat, gloves, and ventilation