Table 2. Names and Formulas of Some Common Substances

A. *Elements that occur as polyatomic molecules*:

		normal state			normal state
hydrogen	H_2	gas	nitrogen	N_2	gas
fluorine	F_2	gas	oxygen	O_2	gas
chlorine	Cl_2	gas	ozone	O_3	gas
bromine	Br_2	liquid	sulfur	S_8	solid
iodine	I_2	solid	phosphorus	P_4	solid

B. *Compounds that are solids at room temperature*:

ammonium chloride	NH_4Cl	silver nitrate	$AgNO_3$
calcium chloride	$CaCl_2$	sodium acetate	$NaC_2H_3O_2$
calcium nitrate	$Ca(NO_3)_2$	sodium carbonate	Na_2CO_3
magnesium chloride	$MgCl_2$	sodium chloride	NaCl
nickel sulfate	$NiSO_4$	sodium sulfate	Na_2SO_4
potassium bromide	KBr	sodium hydrogen carbonate †	$NaHCO_3$
potassium cyanide	KCN		

C. *Compounds that are liquids at room temperature*:

benzene	C_6H_6	ethanol (ethyl alcohol)	C_2H_5OH
carbon tetrachloride	CCl_4	methanol (methyl alcohol)	CH_3OH
chloroform	$CHCl_3$	hydrogen peroxide	H_2O_2
water	H_2O	octane	C_8H_{18}

D. *Compounds that are gases at room temperature*:

ammonia	NH_3	methane	CH_4
carbon dioxide	CO_2	nitric oxide	NO
carbon monoxide	CO	nitrogen dioxide	NO_2
hydrogen chloride	HCl	sulfur dioxide	SO_2
hydrogen cyanide	HCN	sulfur trioxide	SO_3
hydrogen sulfide	H_2S		

E. *Acids*

acetic acid	$HC_2H_3O_2$	perchloric acid	$HClO_4$
sulfuric acid	H_2SO_4	nitric acid	HNO_3
sulfurous acid	H_2SO_3	nitrous acid	HNO_2
hydrochloric acid	HCl (aqueous solution of hydrogen chloride)		

F. *Bases*

ammonia	NH_3	potassium hydroxide	KOH
calcium hydroxide	$Ca(OH)_2$	sodium hydroxide	NaOH

† Sodium hydrogen carbonate is often called sodium bicarbonate. It is also baking soda.