South Pasadena • AP Chemistry

Name _____
Period ___ Date ___/___/___

5 • Reactions in Aqueous Solution

ANSWERS TO NAMING PRACTICE

Type of Compound	Ionic	Acids	Molecular
How To Recognize	Recognize + and - ion	H^+ and - ion	Not Ionic / Two non-metals
How To Name	names of + ion then - ion	"ides" → hydro---ic acid "ates" → ----ic acid "ites" → ---ous acid S (add "ur") P (add "or")	mono, di, tri, tetra, penta, hexa, hepta, octa, nona ,deca names ends with "ide" pent**a**oxide → pentoxide, etc.

There are also compounds that do not follow any of the above rules… they use their "common" names.

Indicate the Type of Compound and then name the compound using the appropriate rules:

1.	NaF	I	sodium fluoride	21.	$CuCl_2$	I	cupric chloride
2.	$FeCl_3$	I	ferric chloride	22.	$AgNO_3$	I	silver nitrate
3.	CO_2	M	carbon dioxide	23.	CO	M	carbon monoxide
4.	$MgCl_2$	I	magnesium chloride	24.	H_3PO_4	A	phosphoric acid
5.	HF	A	hydrofluoric acid	25.	NaCl	I	sodium chloride
6.	SF_4	M	sulfur tetrafluoride	26.	N_2O_5	M	dinitrogen pentoxide
7.	$HC_2H_3O_2$	A	acetic acid	27.	NO_2	M	nitrogen dioxide
8.	H_2O	--	water	28.	HNO_3	A	nitric acid
9.	NH_3	--	ammonia	29.	NaOH	I	sodium hydroxide
10.	CaO	I	calcium oxide	30.	$SnCl_2$	I	stannous chloride
11.	NH_4NO_3	I	ammonium nitrate	31.	$CaSO_4$	I	calcium sulfate
12.	NaI	I	sodium iodide	32.	HBr	A	hydrobromic acid
13.	$PbCO_3$	I	lead carbonate	33.	$Cu(OH)_2$	I	cupric hydroxide
14.	Na_2O	I	sodium oxide	34.	$Zn(OH)_2$	I	zinc hydroxide
15.	$Ba(NO_3)_2$	I	barium nitrate	35.	$BaCl_2$	I	barium chloride
16.	K_2CrO_4	I	potassium chromate	36.	PCl_5	M	phosphorus pentachloride
17.	NO	M	nitrogen monoxide	37.	PCl_3	M	phosphorus trichloride
18.	HCl	A	hydrochloric acid	38.	AsF_5	M	arsenic pentafluoride
19.	MnO_2	--*	manganese dioxide	39.	H_2CO_3	A	carbonic acid
20.	H_2S	A	hydrosulfuric acid	40.	OF_2	M	oxygen difluoride

*** this is an odd one… while it looks like it might be manganese (II) peroxide, the manganese is really in the +4 state and is named like a molecular compound… manganese dioxide. Just memorize this one. This chemical shows up as a catalyst for one of our demonstrations and is also used as an oxidizer.**