

CLASSIFY

name:

SOLUTIONS

A) Classify the following as an ACID, BASE, or SALT.

1. HBr	<u>A</u>	14. H_2CO_3	<u>A</u>
2. KI	<u>S</u>	15. $\text{C}_5\text{H}_7\text{O}_5\text{COOH}$	<u>A</u>
3. H_2SO_4	<u>A</u>	16. MgSO_4	<u>S</u>
4. $\text{Al}(\text{OH})_3$	<u>B</u>	17. HI	<u>A</u>
5. MgCl_2	<u>S</u>	18. K_2S	<u>S</u>
6. LiOH	<u>B</u>	19. H_2CO_3	<u>A</u>
7. Na_2CO_3	<u>S</u>	20. $\text{Mg}(\text{OH})_2$	<u>B</u>
8. NaCH_3CO_2	<u>S</u>	21. BaSO_4	<u>S</u>
9. NH_4Br	<u>S</u>	22. CaF_2	<u>S</u>
10. H_2S	<u>A</u>	23. NH_4OH	<u>B</u>
11. H_3PO_4	<u>A</u>	24. HClO	<u>A</u>
12. $\text{Ca}(\text{OH})_2$	<u>B</u>	25. LiOH	<u>B</u>
13. NaClO	<u>S</u>	26. AlPO_4	<u>S</u>

B) Classify the following as an ELECTROLYTE or NON-ELECTROLYTE

6. CS_2	<u>N-E</u>	1. HCl	<u>E</u>
7. C_2H_6	<u>N-E</u>	2. CCl_4	<u>N-E</u>
8. KOH	<u>E</u>	3. H_3PO_4	<u>E</u>
9. NaI	<u>E</u>	4. $\text{Mg}(\text{OH})_2$	<u>E</u>
10. NaNO_3	<u>E</u>	5. CaCl_2	<u>E</u>

1. Which solution(s) contain(s) an electrolytic substance?

- a) a, b and c c) a and d
 b) a and b d) d only

2. Which of these solutions is a non-electrolyte?

- a) a, b and c c) a and d
 b) a and b d) d only

3. Which solution contains a neutral salt?

- a) a c)
 b) b d)

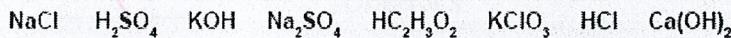
4. Anna often uses a white powder when cleaning the house. She is curious and wonders if this powder is acidic, basic or neutral. What must she do FIRST to find out?

- a) put a piece of blue litmus paper on the solid
 b) put a piece of red litmus paper on the solid
 c) check to see if the solid conducts electricity
 d) dissolve a small amount of the solid in water

5. One of the properties of bases is that they dissolve fats. Which of the following substances would you use to clean greasy dishes?

- a) Na_2SO_4 b) MnO_2 c) H_3PO_4 d) LiOH

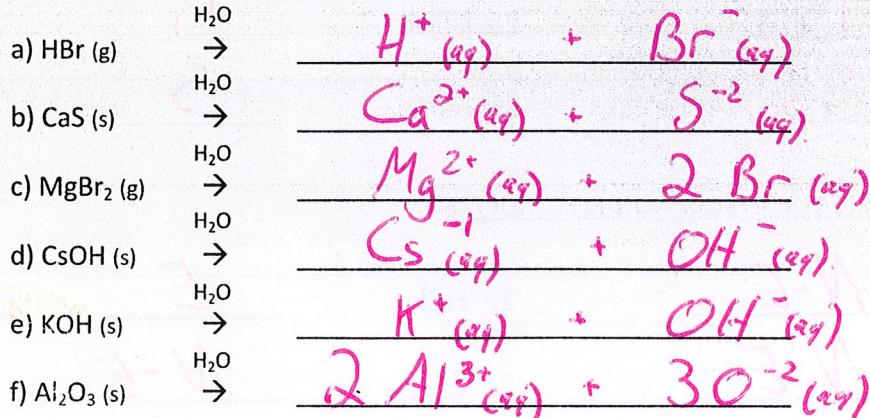
6. The lab technician stores chemicals according to their type. Classify the following substances as acids, bases or salts.



a) acid: H_2SO_4 , Na_2SO_4 , KClO_3 c) acid: KOH , $\text{Ca}(\text{OH})_2$
 base: KOH , $\text{Ca}(\text{OH})_2$ base: NaCl , Na_2SO_4 , KClO_3
 salt: NaCl , $\text{HC}_2\text{H}_3\text{O}_2$, HCl salt: H_2SO_4 , $\text{HC}_2\text{H}_3\text{O}_2$, HCl

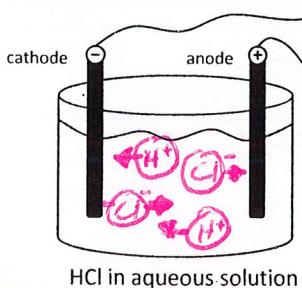
b) acid: H_2SO_4 , $\text{HC}_2\text{H}_3\text{O}_2$, HCl d) acid: $\text{HC}_2\text{H}_3\text{O}_2$, HCl
 base: KOH , $\text{Ca}(\text{OH})_2$ base: KOH
 salt: NaCl , Na_2SO_4 , KClO_3 salt: NaCl , Na_2SO_4 , H_2SO_4 , $\text{Ca}(\text{OH})_2$, KClO_3

7. Complete the following equations which illustrate electrolytic dissociation:



8) Using the following illustration, represent the substance in solution, and show its behavior.

a) HCl



b) $\text{C}_6\text{H}_{12}\text{O}_6$

