

QUIZ: MORE ABOUT SALTS

1. Which of the following statement concerning the formation of a salt is NOT correct?

A salt can form from

- (a) Na^+ and SO_4^{2-} ions.
- (b) Al^{3+} and Cl^{-1} ions.
- (c) Ca^{2+} and CO_3^{2-} ions.
- (d) SO_4^{2-} and Cl^{-1} ions

For Questions **2-4**, use the following table:-

The four salts are constituted by the radicals as follows;

Salt	+vely charged radical	-vely charged radical	Salt
(a)	K^+	SO_4^{2-}	K_2SO_4
(b)	NH_4^+	Cl^-	NH_4Cl
(c)	Ca^{2+}	SO_4^{2-}	CaSO_4
(d)	Na^+	CO_3^{2-}	Na_2CO_3

- 2. Which salt/(s) is/are acidic in nature?
- 3. Identify the neutral salt
- 4. Identify the basic salt

CHEMICALS FROM COMMON SALT

5. In chlor-alkali process, the gases formed are
- (A) Sulphur dioxide
 - (B) Hydrogen
 - (C) Oxygen
 - (D) Chlorine
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- (a) (A) and (B)
 - (b) (B) and (C)

- (c) (C) and (D)
- (d) (B) and (D)

6. Chlorine gas is produced as a by-product in chlor-alkali process. This gas is used to produce
- (a) Gypsum
 - (b) Bleaching powder
 - (c) Calcium chloride
 - (d) Sodium Chloride

Answers:

1. (d)

Explanation: A salt is formed by combining a positive and a negative radical. The two oppositely charged radicals attract each other and form a molecule. Radicals with like charges repel each other and cannot form a molecule. Hence the radicals in (d) cannot form a salt.

2. (b) & (c)

Explanation: NH_4OH with HCl are formed by hydrolysis of NH_4Cl . NH_4OH is a weak base and HCl , a strong acid. Similarly calcium hydroxide [$\text{Ca}(\text{OH})_2$] and? acid (H_2SO_4) are formed on hydrolysis of calcium sulphate $\text{Ca}(\text{OH})_2$ is a weak base and H_2SO_4 is a strong acid.

3. (a)

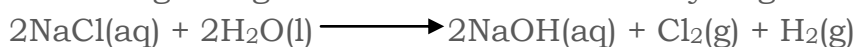
Explanation: The salt, K_2SO_4 is formed from KOH , a strong base and H_2SO_4 , a strong acid. Hence, it does not change the colour of litmus and is thus a neutral salt.

4. (d)

Explanation: The salt Na_2CO_3 , is formed from NaOH , a strong base and a weak acid, H_2CO_3 . Hence it is a basic salt.

5. (d)

Explanation: In chlor alkali process, brine solution is electrolysed. Chlorine gas is given off at the anode and hydrogen at the cathode.



6. (b)

Explanation: Bleaching powder is CaOCl_2 and is prepared by passing chlorine gas over slaked lime.

