

Name:

Class:



The reaction below:



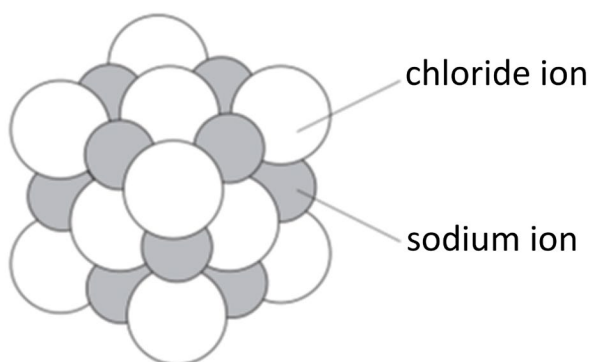
Produces what three products?

1. (metal) salt.
2. Carbon dioxide
3. Water

The formula for sodium sulfate is:

- A NaSO_4
B $\text{Na}(\text{SO}_4)_2$
C Na_2SO_4
D $\text{Na}_2(\text{SO}_4)_2$

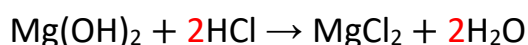
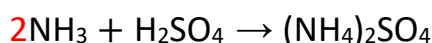
This question is about sodium chloride.



- i. Sodium chloride is an **ionic** solid.
- ii. Sodium chloride conducts electricity when it is **molten** or **aqueous**.
- iii. What is the charge of the sodium and chlorine ions present in sodium chloride?



Balance the following equations involving acids.



How do metals conduct electricity?

Metals have delocalised electrons which can move and carry charge.

How is the R_f value of a chromatogram calculated?

$$R_f = \frac{\text{distance moved by solute}}{\text{distance moved by solvent}}$$

Give the formula of a nitrate ion.



Give the formula for a molecule of ammonia.

Explain, **in terms of bonding**, why diamond does **not** conduct electricity.

An explanation to include:

- In diamond each carbon atom is covalently bonded to four other carbon atoms.
- As carbon has four electrons on its outside shell and these are all used in bonding.
- This means there are no delocalised electrons left over to move and carry charge.