

**What gases does the fire extinguisher contain?**

Fire extinguishers contain **carbon dioxide (CO<sub>2</sub>)**, **nitrogen (N<sub>2</sub>)**, or **halon gases** depending on the type.

**Write the molecular formula of urea.**

The molecular formula of urea is **CO(NH<sub>2</sub>)<sub>2</sub>**.

**Write down a use of dry ice.**

Dry ice is used for **cooling and creating fog effects**.

**Which gas is obtained by reacting limestone and dilute HCl?**

**Carbon dioxide (CO<sub>2</sub>)** is obtained:



**Give reasons: Carbon dioxide is collected in an open gas jar.**

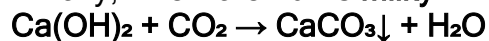
Carbon dioxide is collected in an open gas jar because it is **heavier than air** and **insoluble in water**.

**What will happen if the end of the delivery tube is dipped inside the reacting mixture in Woulfe's bottle?**

The gas will **bubble back into the solution**, causing **contamination and reduced gas collection**.

**What happens when carbon dioxide is passed through lime water for a long time? Write with chemical equations.**

Initially, lime water turns **milky**:



On passing more CO<sub>2</sub>, it turns **clear**:

