

## IPPC DOC 1

### NON TECHNICAL DESCRIPTION

Acetylene is produced by the addition of Calcium Carbide onto excess water in what is termed the wet method. In this process the reaction takes place in a cylindrical water shell attached below a carbide feed hopper. A large excess of water is used as the carbide is fed into the water reservoir at a controlled rate until the reaction is complete. Calcium hydroxide is obtained as a slurry containing 10 to 20% hydroxide .

The chemical reaction for the process is;



The Acetylene produced is gaseous and after a light scrubbing and drying through Calcium Chloride charged tube driers, is about 99.6% pure .The gas so produced is passed through a water cooled compressor and is filled in acetylene cylinders, charged with acetone, up to a pressure of 22 Bar pressure.