

## Facts about methane

Methane is a gas at ordinary conditions of temperature and pressure, and is the main gas in the 'natural gas' that we burn to produce heat in our homes. It is made of molecules which contain carbon and hydrogen atoms, so it can be referred to as a 'hydrocarbon'. The chemical formula of methane is CH<sub>4</sub>.



Methane gas can be made in laboratories and factories, but a major source of methane on Earth is the breakdown or rotting of dead plants and other waste materials. This breakdown is brought about by tiny bacteria (methanogenic bacteria) that live in the soil. We have some of these bacteria in our digestive systems, too, and animals such as cows have large numbers of these bacteria, so they often produce a lot of methane. They release it into the air when they belch! This can be a problem, because methane is a 'greenhouse gas' and can contribute to 'global warming'.



In December, 2014, methane was detected in very tiny amounts by the Curiosity rover in the atmosphere around Gale Crater. This suggests that methanogenic bacteria may be present on Mars, or may have been in the past.