

Salt Production Discussion Questions:



- 1) What is salt?
- 2) Where does salt form naturally?
- 3) How is salt produced for human consumption?

What is salt?

Salt is a chemical compound made up of two elements:

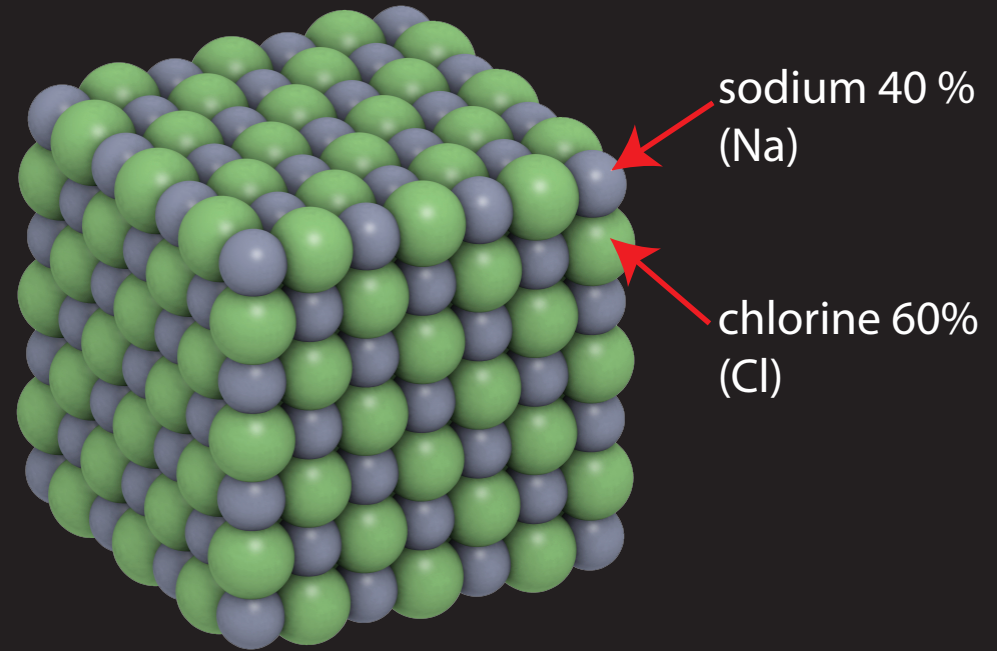
Sodium (Na) and
Chlorine (Cl)

The molecules of sodium and chlorine cling together forming crystals, which are uniform and cube-like in structure.

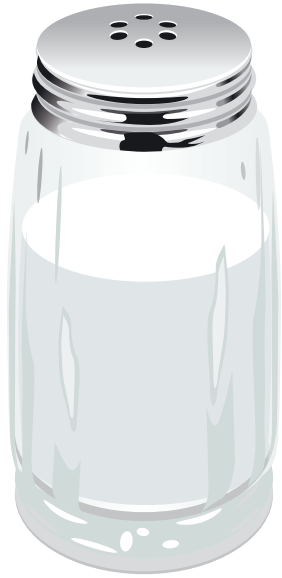
These two elements form the compound sodium chloride. The table salt that we eat is sodium chloride.

Table salt usually has an anti-caking agent added to it to stop it from clumping together in moist conditions.

Table salt may also be iodised, which means it has small amounts of iodine added to it. Iodine is a trace element that helps prevent health issues from iodine deficiency.



Where does salt come from?



Salt occurs naturally on the earth in two ways:

- It can be found in the earth's crust as rock that can be mined.
- It can be extracted from salty water by the process of evaporation.





Where does rock salt come from?

We know that salt occurs naturally in sea water. So why do we find large areas of underground rock that is actually salt?

Rock salt deposits are found in places where oceans or seas were located millions of years ago. The surface of the earth changed over time and the oceans dried up leaving the salt behind. Volcanic and seismic activity laid new layers of soil and rock over the deposits. These deposits built up over millions of years and compressed the salt into rock.

There are many mines that harvest rock salt deposits in many parts of the world. The largest mines are located at Goderich, Ontario, Canada and in Khewra, Punjab Region, Pakistan.



What is rock salt used for?

A great proportion of rock salt is used for industrial purposes. Salt is a necessary ingredient in the manufacture of a wide range of products including chlorine for pools, bleach for whitening and cleaning products and in the manufacture of glass.

Some rock salt is used to clear roads of snow and ice during winter in cold parts of the world.

Some rock salt is processed to remove impurities before it is sold for human consumption.



Where does sea salt come from?

Sea salt is produced by placing sea water in a series of large ponds called salt flats. The sea water sits in these shallow ponds for a number of months while the water evaporates with the energy of the sun. The salty water is then pumped to the next pond where it is left to sit while more water evaporates.

The process repeats until all the water is eventually evaporated leaving just the salt residue behind. The salt is then ready to be processed for cleaning and packaged ready for sale.

