



### What is an emulsion?

Emulsion is a mixture of two liquids, which you can usually not mix. For example oil and water. If you pour some drops oil into a jar of water, they liquids will not be mixed. Try to mix oil and water: Even tough you try mix it, the oil will build drops and it will float on the water. But it is possible to mix both liquids. Find out how to mix water and oil:

By mixing both liquids and creating one liquid, where you cannot distinguish between the different ingredients, you created an emulsion.

### Why is it possible to mix two liquids, which are usually not miscible?

Two liquids, which are not miscible, have different chemical characteristics. On the one hand there is a liquid, which is so called: hydrophilic liquids and the lipophilic liquids. These two different kinds of liquids are not miscible. Their molecules cannot connect. But in case of having a so called: emulsifier, the two liquids are miscible. But why?

An emulsifier is a substance, which is working like a bridge. It is able to connect with both liquids and therefore the two not miscible liquids are connected through the emulsifier.

Now they are miscible!

Another example for emulsions of your everyday life are: Milk, mayonnaise, suncream and butter. All of these things are emulsions, because they consist of two liquids, which are not miscible without an emulser.