

## Patentability of Micro-Organisms

Patents on micro-organisms are far from new. In the brewing and baking industries, yeast has traditionally played an important part and patents for new types of yeast were granted in Belgium in 1833 and in Finland in 1843. But how can you patent a micro-organism?

All patentable inventions must satisfy essentially the same criteria - that is, the invention must be novel and not obvious, it must have some industrial use, and the description part of the patent application must enable a person skilled in the relevant area of technology to put the invention into practice.

### Novelty of a micro-organism

In patent terms, 'novel' means not previously 'made available to the public'. So the first person to find and isolate a new bacterium from a soil sample, for example, might have made a potentially patentable invention. If the bacterium is claimed in the patent application in an 'isolated' form, that form will be novel over the previously-known mixture of that bacterium with numerous other micro-organisms in the soil. If the bacterium is shown to have some practical use and is sufficiently different from other bacteria which have previously been known for that use, then the use and inventive step hurdles are likely to be overcome.

### How to make the micro-organism

But what about the enablement hurdle? How can you describe - in words - a micro-organism in a manner such that a skilled microbiologist can reproduce it? If the micro-organism in question is a mutant of a known bacterium, and the mutation process is reproducible, then the mutant can probably adequately be described in the patent application. But what if the micro-organism has never been known before? The answer is to deposit a sample of the micro-organism under the Budapest Treaty with an International Depository Authority (IDA). Under this Treaty, if a sample of the micro-organism is deposited with one IDA, the enablement requirement is deemed to be satisfied in all of the countries that have signed the Treaty.

## When to deposit

A number of countries and Patent Offices (notably the European Patent Office) require a sample of the micro-organism to be deposited under the Budapest Treaty before the patent application is filed (and before the filing of the priority application if priority is to be valid). So if the proposed filing date of the patent application (or priority application) is approaching, steps should be taken to ensure that a sample of the micro-organism is deposited in good time.

The depositor should, in particular, ensure that adequate time is allowed for delays in the mail or customs formalities (if the sample is being sent by mail), incorrectly filled-in forms, and the possibility that the sample is found to be non-viable by the IDA and that a replacement sample is therefore required. Care should also be taken that the deposit is made in the name of the applicant for the patent.

## Submitting details of the deposit

Most Patent Offices require details of the IDA, the deposit number and deposit date to be included in the patent application on filing or to be added to the patent application within a set time (often within 16 months of the earliest priority date). A short description of the characteristics of the micro-organism might also have to be included in the patent application. Practice on these points varies from country to country and it is therefore prudent to include all of this information in the patent application on filing, if possible.

## Further advice

If you would like any further advice, please contact us at Dehns using the details below.

More detailed information on the above and other biotech inventions may be found in the Dehns' booklet on "Patenting of medical and biotech inventions" which is available from our website [here](#).



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