

Patenting Chemical Compositions Containing Natural Products

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The Supreme Court has identified the patenting of natural products as a judicial exception to patentability. Claims directed to nothing more than abstract ideas (such as mathematical algorithms), natural phenomena, and laws of nature are not eligible for patent protection. *Diamond v. Diehr*, 450 U.S. 175, 185, 209 USPQ 1, 7 (1981). The natural products exception can apparently fall under either the natural phenomenon exception or law of nature exception.

The U.S. Patent and Trademark Office has established an analytical framework (e.g., MPEP 2106.04(b) entitled “Laws of Nature, Natural Phenomena & Products of Nature”) and provided guidelines and examples for determining whether a claim that recites a natural product satisfies the patent eligibility requirements of 35 U.S.C. § 101. In the case of single component compositions, such as DNA or peptides, the issue is often resolved by comparing the claimed DNA or peptide with the closest naturally occurring counterpart and determining if it is “markedly different” than the closest naturally occurring counterpart.

However, when the claimed composition includes a mixture or combination of multiple components, and there is no naturally occurring counterpart because the combination is not found in nature, the Examiner or other fact finder must still compare the claimed composition with the closest naturally occurring counterpart(s). It is impermissible for the fact finder to parse the claim and compare each individual component with its naturally occurring counterpart. If that were permissible, it would be difficult indeed to patent any composition since they are typically composed of naturally occurring elements and compounds. Thus, it is a reversible error for an Examiner or other fact finder to parse the claim and compare each individual component to its naturally occurring counterpart.

One of the examples in the PTO guidelines is gunpowder comprised of 75% potassium nitrate, 15% charcoal, and 10% sulfur. Each of potassium nitrate, charcoal, and sulfur can be found individually in nature in one form or another, but not the combination. Thus, the proper analysis compares gunpowder to each of potassium nitrate, charcoal, and sulfur and asks whether gunpowder is markedly different than each component in isolation. Because gunpowder requires all three components to have the correct explosive properties, but none of potassium nitrate, charcoal, and sulfur possess such explosive properties in isolation, the composition is markedly different than any naturally occurring counterpart and therefore patent eligible.

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