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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARTIN GADIENT, THOMAS LINDEMANN,
MISCHA SCHWANINGER, KARL MANFRED VOELKER,
KAI URBAN, and STEFANIE KIRCHEN

Appeal 2018-005058
Application 13/976,696
Technology Center 1600

Before JEFFREY N. FREDMAN, MICHAEL J. FITZPATRICK, and
DAVID COTTA, *Administrative Patent Judges*.

FITZPATRICK, *Administrative Patent Judge*.

DECISION ON APPEAL

Martin Gadiant, Thomas Lindemann, Mischa Schwaninger, Karl Manfred Voelker, Kai Urban, and Stefanie Kirchen (“Appellants”)¹ appeal under 35 U.S.C. § 134(a) from the Examiner’s final decision rejecting claims 1–4 and 13–16. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ The real party in interest is identified as DSM IP Assets B.V. Appeal Br. 3.

STATEMENT OF THE CASE

The Specification

The claimed invention “relates to improved vitamin E formulations as well as to the production of such formulations.” Spec. 1:3–4. In particular, it relates to “powderous” formulations of vitamin E. *Id.* at 1:16.

The specification explains that “[d]ust explosions are a huge risk in any processes wherein powders are used,” including vitamin E production. *Id.* at 1:21; *see also id.* at 1:16–17 (“Vitamin E formulations in powderous forms do have explosion hazard due to the small particle size of the powder.”).

The specification states that there was “a need for powderous formulations [of vitamin E] with low explosion hazard,” and that the inventors “found that powderous vitamin E formulations comprising one or more specific compounds and a carrier material do have a low risk of explosion.” *Id.* at 1:21–22, 2:1–2.

The Rejected Claims

Claims 1–4 and 13–16 stand rejected. Final Act. 1.² Independent claim 13 is representative and reproduced below.

13. A powderous formulation comprising:

(i) at least 40 wt-%, based on the total weight of the powderous formulation, of a porous particulate carrier material,

(ii) at least 50 wt-%, based on the total weight of the powderous formulation, of vitamin E coated onto the porous particulate carrier material, and

² Claims 5–11 were cancelled, and claim 12 was withdrawn from consideration. Appeal Br. 24; Final Act. 1.

(iii) 0.5 wt-% – 8 wt-%, based on the total weight of the powdery formulation, of sodium chloride as an auxiliary compound having an average particle size ($d_{0.5}$) in the formulation of 54 μm to 100 μm , wherein

the powdery formulation has a minimum ignition energy (MIE) value according to EN 13821:2002 of 30–100 mJ.

Appeal Br. 24.

Whereas claim 13 recites “sodium chloride as an auxiliary compound,” claim 1 permits any one of a *Markush* group of possible auxiliary compounds. *Id.* at 22–23. Otherwise, the claims are identical.

The Appealed Rejection

The following rejection is before us for review: claims 1–4 and 13–16 under 35 U.S.C. § 103 as unpatentable over Deshpande,³ Trubiano,⁴ Batra,⁵ Spectrum,⁶ Barton,⁷ and Nagy.⁸

DISCUSSION

The preamble of each of independent claims 1 and 13 recites: “A powdery formulation.” The claims go on to recite the components of the powdery formulation and specify amounts of components “based on the total weight of the powdery formulation.” We determine that the

³ US 9,247,765 B2, issued Feb. 2, 2016 (“Deshpande”).

⁴ US 6,086,917, issued July 11, 2000 (“Trubiano”).

⁵ US 2001/0014352 A1, published Aug. 16, 2001 (“Batra”).

⁶ *Material Safety Data Sheet*, SPECTRUM 1–6 (2008), www.spectrumchemical.com/MSDS/V3151.pdf (“Spectrum”).

⁷ John Barton, *Dust Explosion Prevention and Protection*, INST. CHEM. ENGINEERS 50–57, 60–61 (2002) (“Barton”).

⁸ John Nagy & Harry C. Verakis, *Development and Control of Dust Explosions*, TECHNOLOGY AND ENGINEERING 51–61 (June 1983) (“Nagy”).

preambles of claims 1 and 13 should be construed as limiting. *See Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003) (“When limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.”).

The Examiner correctly treated the preamble as limiting and found that “Deshpande teaches beadlets which reads on a powder (abstract) for tableting (col. 16).” Final Act. 4.

Appellants argue against the rejection, in part, because the asserted combination does not teach a “powderous formulation.” More specifically, Appellants argue that Deshpande “relates to a formulation suitable for making a tablet (e.g., a compressed formulation).” Appeal Br. 10 (citing Deshpande 5:12–18).

First, absent further evidence or explanation, the record does not support the Examiner’s position that Deshpande’s beadlets read on a powder as Deshpande itself distinguishes between beadlets and powder (as well as granules). *See, e.g.*, Deshpande 2:17–20 (“Some options like spray dried powders, granules or gelatin beadlets work only with select products, and do not necessarily function well under tableting systems.”), 2:33–37 (“Such oily products are difficult to use except in the smallest of doses in dry delivery forms such as tablets without the use of specialized technologies to convert them to powders, granules or beadlets.”).

In addition to asserting that beadlets read on powder, the Examiner cited column 16 of Deshpande (*see* Appeal Br. 10), which does discuss a “powder.” The relevant portion of Deshpande column 16 states:

The beadlets of present invention (Examples 1–4) 32 g were mixed with dicalcium phosphate 40 g, microcrystalline cellulose 20 g, sodium starch glycolate 2 g, hydroxypropyl cellulose 3 g, aerosil 1 g and talcum 1 g. After uniform blending the powder mixture was compressed into tablets of 500 mg weight with hardness of 10 kg/cm².

Deshpande 16:27–32. This passage, which is part of “Example 9,” teaches a powder as an intermediate step, after the production of beadlets and prior to the production of tablets.

Appellants’ claims encompass powderous formulations regardless of whether they are a temporary or intermediate substance or a final product. However, the Examiner’s bare citation to column 16 without explanation is insufficient. This is particularly so as the Examiner offered a different (and unsupported) explanation for how the prior art allegedly taught a “powderous formulation,” i.e., that “Deshpande teaches beadlets which reads on a powder.” Final Act. 4.

The Examiner, in the Answer, ultimately did discuss the concept of reading the “powderous formulation” limitation onto an intermediate substance, stating:

[O]ne of ordinary skill in the art is well aware that tablets are most commonly made by preparing a powder mixture of the desired components and then compressing said powder mixture into a tablet. Therefore any reference drawn to a tablet formulation reads on a powder formulation as well.

Ans. 3. However, the first sentence does not cite to any evidence in support. Further, even assuming the first sentence is true, the conclusion set forth in the second sentence would not follow it. It is too broad of a conclusion.

Further, claim 1 requires that “at least 50 wt-%, based on the total weight of the powderous formulation, of vitamin E coated onto the porous

particulate carrier material.” Although Deshpande teaches beadlets that may comprise up to 50 wt% of lipophilic nutrient such as vitamin E (*see* Deshpande 6:1–2), as discussed above, the beadlets are not a powderous composition. And, although Deshpande discloses blending a mixture of beadlets *and additional ingredients* into a “powder mixture” (*see id.* at 16:27–32) the Examiner does not establish that 50% of this entire composition is composed of vitamin E. Nor does the Examiner provide adequate evidence or reasoning to increase the amount of vitamin E to result in 50% of the entire composition. *See* Ans. 3 (“It is common in the nutraceutical field to produce vitamin tablets that contain only one vitamin, therefore it would have been obvious to one of ordinary skill in the art to produce the powder and tablets of Deshpande with 50% vitamin E as the only lipophilic nutrient.” (no citations provided)).

DECISION

For the reasons discussed, we reverse the Examiner’s rejections.

REVERSED