



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/826,911	03/14/2013	Rick Adkins	BMS132011 / MD-07-072	9988
157	7590	12/26/2019	EXAMINER	
Covestro LLC 1 Covestro Circle PITTSBURGH, PA 15205			LEONARD, MICHAEL L	
			ART UNIT	PAPER NUMBER
			1763	
			NOTIFICATION DATE	DELIVERY MODE
			12/26/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

US-IPR@covestro.com
laura.finnell@covestro.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RICK ADKINS, JIONG ENGLAND, and DON WARDIUS

Appeal 2019-002243
Application 13/826,911
Technology Center 1700

Before JEFFREY T. SMITH, MICHAEL P. COLAIANNI, and
BRIAN D. RANGE, *Administrative Patent Judges*.

RANGE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–5, 8–13, and 16–24. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Convestro LLC (previously Bayer MaterialScience LLC). Appeal Br. 1.

CLAIMED SUBJECT MATTER²

Appellant describes the invention as relating to a polymer polyol and process for making it. Spec. 1:5–23. In particular, Appellant describes the invention as relating to stable, low-viscosity polymer polyols that could be used for polyurethane foams or for adhesives, sealants, or elastomers. *Id.* Claim 1 (reproduced below with emphasis added to certain argued recitations) is illustrative:

Claim 1. A stable, low-viscosity polymer polyol comprising the free-radical polymerization product of:

(a) a clear liquid base polyol component comprising a natural oil base polyol having a mean hydroxyl functionality of 1.7 to 5.0, a number average molecular weight of about 350 to about 725 and an OH number of 190 to 500, and which comprises the transesterification/alkoxylation product of

(i) at least one initiator comprising at least one Zerewitinoff-active hydrogen atom which comprises a hydroxyl group containing compound, mixtures thereof, and/or alkoxyates thereof;

(ii) a natural oil component comprising soybean oil or mixtures thereof, with the proviso that said soybean oil excludes hydroxylated soybean oil;

and

(iii) at least one alkylene oxide;

in the presence of:

(iv) at least one alkaline catalyst;

wherein said alkylene oxide is completely reacted;

(b) at least one ethylenically unsaturated monomer which comprises styrene, acrylonitrile or mixtures thereof;

² In this Decision, we refer to the Final Office Action dated March 30, 2018 (“Final Act.”), the Appeal Brief filed September 28, 2018 (“Appeal Br.”), and the Examiner’s Answer dated November 28, 2018 (“Ans.”).

- and, optionally,
(c) a preformed stabilizer;
in the presence of:
(d) a free-radical polymerization initiator;
and, optionally,
(e) a chain transfer agent.

REFERENCES

The Examiner relies upon the prior art below in rejecting the claims on appeal:

Lorenz et al. ("Lorenz")	US 2008/0114086 A1	May 15, 2008
Adkins et al. ("Adkins")	US 2010/0160469 A1	June 24, 2010
Reaney et al. ("Reaney")	US 2010/0305344 A1	Dec. 2, 2010

REJECTION(S)

The Examiner maintains the following rejections on appeal:

- A. Claims 1, 2, 4, 5, 8–10, 12, 13, and 16–24 under 35 U.S.C. § 103 as obvious over Adkins in view of Lorenz. Ans. 3.
- B. Claims 3 and 11 under 35 U.S.C. § 103 as obvious over Adkins in view of Lorenz and Reaney. *Id.* at 6.

OPINION

We review the appealed rejections for error based upon the issues identified by Appellant and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential), *cited with approval in In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t

has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”). After considering the evidence presented in this Appeal and each of Appellant’s arguments, we are not persuaded that Appellant identifies reversible error. Thus, we affirm the Examiner’s rejections for the reasons expressed in the Final Office Action and the Answer. We add the following primarily for emphasis.

The Appellant does not present any substantively distinct arguments for separate claims. Appeal Br. 4, 9. We therefore limit our discussion to claim 1. All other claims stand or fall with that claim. 37 C.F.R. § 41.37(c)(1)(iv) (2013).

The Examiner finds that Adkins teaches the polymer polyol product of claim 1 including a base polyol as prepared based upon the teachings of Lorenz. Ans. 3; 7–8 (citing Adkins and Lorenz). The Examiner emphasizes that “the primary reference Adkins clearly says that the polyols taught in Lorenz are suitable as the ‘base polyol’ component for the free-radical polymerization (See 0050).” *Id.* at 8. The Examiner finds that Lorenz, in turn, teaches components (a)(i)–(iv) of claim 1 including use of soya oil (claimed component (ii)). *Id.* at 7.

Appellant argues that the combination of references do not suggest the base polyol component using hydroxylated soybean oil. Appeal Br. 4–6. Appellant emphasizes that Adkins refers to hydroxylated soybean oil and emphasizes that Lorenz does not suggest that soya oil would be suitable as a liquid base polyol component. *Id.* at 5–6. Appellant’s argument unpersuasively addresses the references individually; one cannot show nonobviousness by attacking references individually when the rejection is

based on a combination of references. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

Appellant's argument is also unpersuasive because, while Adkins refers to one embodiment that requires a hydroxylated derivative of a natural oil (Adkins ¶¶ 42–47), Adkins also explains that natural oil polyols may alternatively be subjected to processes “that do not lead to hydroxyl group formation.” Adkins ¶ 47. In this other embodiment (“it is also possible,” *id.* at ¶ 48), Adkins suggests use of an alkoxyated derivative of a natural oil as described in Lorenz—“U.S. Published Patent Application[] . . . 2008/00114086.” *Id.* at ¶¶ 49–50. Lorenz, in turn, teaches an alkoxylation product of (i) an initiator having a Zerewitinoff-active hydrogen atom (Lorenz ¶ 29), (ii) any triglyceride including soya oil (*id.* at ¶ 33), (iii) alkylene oxide (*id.* at ¶ 30), and (iv) an alkaline catalyst (*id.* at ¶ 36). The combined references therefore reach the recitations of claim 1.

Appellant also argues that a person of skill in the art would not have had a logical basis to use the Lorenz alkoxylation product with Adkins with a reasonable expectation of success. Appeal Br. 6. We disagree. As explained above, Adkins explicitly invites use of the Lorenz alkoxyated derivative with the Adkins process. Adkins, therefore, suggests that such a combination would have a reasonable expectation of success.

Appellant further argues that a person of skill in the art would not have known that claim 1's polymer polyols with specified base would have “relatively high solids contents, very low viscosity, and good filterability.” Appeal Br. 7. This argument is unpersuasive because these properties are not recited in claim 1 and, as explained above, a person of skill in the art would have had reason to combine the teachings of the references.

Appellant did not argue unexpected results in the Appeal Brief, but the Examiner interpreted Appellant’s argument concerning the superior properties of claim 1’s product as being an argument attempting to establish unexpected results. Ans. 8–10. To the extent Appellant’s argument attempts to establish unexpected results, the argument is unpersuasive because Appellant does not provide sufficient arguments supported by evidence that establishes why the results are unexpected and Appellant does not adequately explain why the purported unexpected results are reasonably commensurate with the scope of claim 1. Ans. 8–10; *see also Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1371 (Fed. Cir. 2007) (“[A]ny superior property must be *unexpected* to be considered as evidence of non-obviousness.” (emphasis in original)). Indeed, in the Appeal Brief, Appellant does not allege that the allegedly beneficial properties would have been surprising or unexpected.

Because Appellant’s arguments do not identify harmful error, we sustain the Examiner’s rejections.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 4, 5, 8–10, 12, 13, 16–24	103	Adkins, Lorenz	1, 2, 4, 5, 8–10, 12, 13, 16–24	
3, 11	103	Adkins, Lorenz, Reaney	3, 11	
Overall Outcome			1–5, 8–13, 16–24	

Appeal 2019-002243
Application 13/826,911

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED