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Datasheet for the decision of 25 November 2021

Case Number: T 1156/19 - 3.3.06

Application Number: 09840158.1

Publication Number: 2396281

IPC: B01J47/00, B01J39/04, C07C51/47, C07C409/26

Language of the proceedings: EN

Title of invention:
METHOD OF IODIDE REMOVAL

Applicant:
Purolite Corporation

Headword:
METHOD OF IODIDE REMOVAL / Purolite Corporation

Relevant legal provisions:
EPC Art. 84

Keyword:
Claims - unclear characterization by parameters

Decisions cited:

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It can be changed at any time and without notic

Catchword:

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Case Number: T 1156/19 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 25 November 2021

Appellant: (Applicant)	Purolite Corporation 150 Monument Road Bala Cynwyd, PA 19004 (US)
Representative:	Grünecker Patent- und Rechtsanwälte PartG mbB Leopoldstraße 4 80802 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 13 November 2018 refusing European patent application No. 09840158.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	C. Brandt
Members:	P. Ammendola
	S. Arrojo

Summary of Facts and Submissions

I. The appeal lies from the decision of the examining division to refuse European patent application n° 09840158.1 because the claims of the main request filed with letter of 26 June 2017 (hereinafter **main request**) and those of the auxiliary request filed with letter of 28 September 2018 (hereinafter **auxiliary request**) contravened Article 84 EPC.

II. Claim 1 of both the main request and the auxiliary request reads as follows:

> "*1. A method of reducing the concentration of an iodide compound in a liquid comprising contacting the liquid with a resin, wherein the resin comprises a strong acid macroporous resin having at least 1% of the acid functional groups exchanged with silver,*
> *a dry weight capacity of at least 5.0 eq/kg,*
> *a mean pore diameter (D_{50}) of 400-800 Å,*
> *a pore volume of 0.4-0.6 ml/g, and*
> *a surface area of 20-40 m^2/g.*"

Hereinafter, the features of this claim:
- "*a mean pore diameter (D50) of 400-800 Å*",
- "*a pore volume of 0.4-0.6 m^2/g*" and
- "*a surface area of 20-40 m^2/g*"

are respectively referred to in short as **P-D50**, **P-VOL** and **S-AREA**.

III. With letter of 14 October 2021 the applicant (hereinafter "the appellant") filed, *inter alia*, the document:

D7 = *Ion Exchangers*, K. Dorfner Ed, 1991, index and pages 320 to 332, 399, 400, 1438 and 1447.

IV. At the oral proceedings held on 25 November 2021, the appellant requested that the decision under appeal be set aside and a European patent be granted on the basis of the claims of the main request filed with letter of 26 June 2017 or, alternatively, of those of the auxiliary request filed with letter of 28 September 2018.

Reasons for the Decision

Main request

1. Lack of clarity of claim 1

1.1 Article 84 EPC requires that the claims define the matter for which protection is sought. According to the established jurisprudence of the boards (see the Case Law of the BoA, Ninth Edition, 2019, II.A.3.5) in case the invention is characterised by a parameter, Article 84 requires:

- that the method for measuring that parameter (or at least a reference thereto) should appear in the claim itself, to clearly define the scope of the claims;

and

- that the applicant who chooses to define the scope of the claim by parameters should ensure that a skilled person can easily and unambiguously verify whether he is working inside or outside the scope of the claim.

However, the requirements of Article 84 EPC would still be met if it could be convincingly shown that (i) the method to be employed belongs to the skilled person's common general knowledge, or (ii) all the methodologies known in the relevant technical field for determining this parameter yield the same result within the appropriate limit of measurement accuracy.

1.2 In the present case not only claim 1 is silent as to the measuring methods of the five parameters recited in the claim, but also the description of the application does not provide any direct or indirect information as to how to measure any of them.
In particular, the absence of any such information in the original application in respect of the methods for measuring the P-D50, P-VOL and S-AREA values recited in claim 1 is undisputed.

The board notes that, as also undisputed by the appellant, it is well known that these characteristics of the strong acid macroporous resin can be determined by (at least) two porosimetry methods, i.e. mercury porosimetry and nitrogen BET porosimetry. This is also apparent, for instance, from document D7, which undisputedly represents common general knowledge of the person skilled in the art of ion exchange resins, and lists on page 400 "mercury porosity" (as well as "BET surface") among the physical properties of these resins.

1.3 The appellant nevertheless argued that the skilled reader of claim 1 would consider the nitrogen BET porosimetry as the only methodology of choice, because nitrogen BET porosimetry was not only easy to apply but was also generally available and, thus,

commonly used to produce verifiable data. On the contrary, mercury porosimetry had evident disadvantages.

1.4 The board notes that the appellant conceded to have no evidence to support these submissions. Thus, they amount to mere allegations.

1.5 The board also notes that the appellant has not even alleged, let alone made plausible or demonstrated, that mercury porosimetry and nitrogen BET porosimetry would give rise to identical values for P-D50, P-VOL and S-AREA. Indeed, considering the apparent differences among the physical phenomena onto which these methodologies are based, it is apparent to the board that they would produce significantly different results.

1.6 Hence, the board concludes that there are at least two methodologies known in the relevant technical field and which do not not necessarily yield the same results, that could be used by the skilled person for verifying the requirements in claim 1 as to the P-D50, P-VOL and S-AREA.

1.7 Accordingly, claim 1 is found unclear and the main request is refused in view of Article 84 EPC.

Auxiliary request

2. As claim 1 of the auxiliary request is identical to that of the main request, also the auxiliary request must be refused in view of Article 84 EPC, for the same reasons given above.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Pinna C. Brandt

Decision electronically authenticated