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Non Patent Document 8: Maekawa, S.; Matsumoto, R.; Ito, K.; Nokami, T.; Li, J-X.; Nakayama, H.; Itoh, T.* Design of Quaternary Ammonium Type-Ionic Liquids as Desiccants for an Air-Conditioning System, Green Chemical Engineering, 1 (2020), 109-116.

Non Patent Document 9: Dicationic Type Quaternary Ammonium Salts as Candidates of Desiccants for an Air-Conditioning System, Itoh, T.; Hiramatsu, M.; Kamada, K.; Nokami, T.; Nakayama, H.; Yagi, K.; Yan, F.; Kim, H-J. ACS Sustainable Chem. Eng., 9 (2021), 14502-14514.

SUMMARY

PROBLEM TO BE SOLVED

[0005] The lithium chloride aqueous solution and the calcium chloride aqueous solution disclosed in Non Patent Documents 1 to 2 have an advantage of being able to obtain low-humidity air in a stable state. However, in general, aqueous solutions of alkali metal salts and alkaline earth metal salts of these halide ions are corrosive to metals. Therefore, when these substances are applied to a moisture control material, there exists a problem that a highly corrosion-resistant material

liquid aqueous solution including a combination of cholinium cations and dimethyl phosphate anions exhibits high moisture absorption properties with low corrosiveness to metals. Further, in Non Patent Document 9, it is reported that quaternary ammonium=dimethyl phosphate salt, in particular, dicationic ammonium, exhibits extremely high moisture absorption properties. It has been found that although dicationic ammonium=dimethyl phosphate exhibits moisture absorption properties superior to all the conventionally reported moisture control materials, the aqueous solution of dicationic ammonium=dimethyl phosphate salt has a relatively high viscosity, (Non Patent Document 9).

[0006] In particular, many moisture control materials have been studied as described above, and a novel moisture control material having better moisture absorption properties (moisture absorption capacity and water vapor exchange capacity) is required recently.

The present disclosure has been made to solve the problem, and the object thereof is to provide a moisture control material that exhibits noticeably excellent moisture absorption properties.

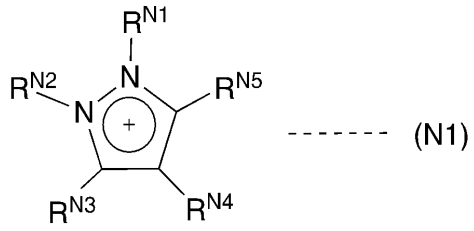
MEANS FOR SOLVING THE PROBLEM

[0007] Based on the above problems, the present inventors have conducted studies and found that the above problems can be solved by using a moisture control material containing a salt composed of pyrazolium cations and phosphate ester anions, having a specific structure.

Specifically, the problem has been solved by the

following means.

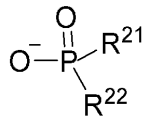
<1> In an aspect, there is provided a moisture control material comprising a salt composed of a pyrazolium cation represented by the following formula (N1) and a phosphate ester anion:



------- (N1)

wherein in formula (N1), R^{N1}, R^{N2}, R^{N3}, R^{N4} and R^{N5} are each independently a hydrogen atom, or an alkyl group having 1 to 12 carbon atoms which optionally has a hydroxy group and optionally includes one or more oxygen atoms in the chain; R^{N1}, R^{N2}, R^{N3}, R^{N4} and R^{N5} are the same or different from each other; and one or more of R^{N1} and R^{N2} which are substituents on a nitrogen atom that constitutes a 5-membered ring are alkyl groups having 1 to 12 carbon atoms, which optionally have a hydroxy group and optionally include one or more oxygen atoms in the chain.

<2> The moisture control material according to item <1>, wherein the phosphate ester anion is an anion represented by the following formula (N3):



----- (N3)

wherein in formula (N3), R^{21} is a hydrogen atom, a hydroxyl group, an alkyl group having 1 to 6 carbon atoms, a hydroxyalkyl group having 1 to 6 carbon atoms, an alkoxy group having 1 to 6 carbon atoms, an alkenyl group having 2 to 6