Patent Right	Date	August 29, 2019	Court	Intellectual Property High Court, Fourth Division
	Case number	2018 (Gyo-Ke) 10084		
- A case in which, with regard to the invention titled "PROCESS FOR PACKAGING WINE IN ALUMINUM CANS", the court has dismissed the Plaintiff's claim for rescission, stating that the Invention cannot be acknowledged as conforming to the support requirement since it cannot be recognized from the description of the Detailed Description of the Invention and the common general technical knowledge as of the priority date that a person skilled in the art could recognize that the problem to be solved by the Invention could be solved over the whole numerical ranges of a chloride level of less than 300 ppm and a sulfate level of less than 800 ppm that were encompassed into the Invention.				

Case type: Rescission of Trial Decision of Invalidation

Result: Dismissed

References: Article 36, paragraph (6), item (i) of the Patent Act

Number of related rights, etc.: Invalidation Trial No. 2016-800043 (Trial of the case)

Summary of the Judgment

1. This case is a suit against the trial decision made by JPO that accepted a demand for trial for invalidation against the patent for the invention titled "PROCESS FOR PACKAGING WINE IN ALUMINUM CANS".

2. In summary, the judgment has ruled as follows and dismissed the Plaintiff's claim.

(1) Article 36, paragraph (6), item (i) of the Patent Act specifies that the recitation of the scope of the claims must not go beyond the scope of the invention described in the Detailed Description of the Invention. The gist is to prevent the scope of the claims from reciting an invention not described in the Detailed Description of the Invention, since this would result in claiming a monopolistic and exclusive right for an invention not disclosed, and thus it is not reasonable.

Consequently, regarding the invention including a predetermined numerical range in matters specifying the invention, whether or not the recitation of the scope of the claims conforms to the requirement as provided in the same item (support requirement) should be determined by considering whether or not a person skilled in the art could recognize from the description of the Detailed Description of the Invention and the common general technical knowledge as of the filing that the problem to be solved by the invention might be solved over the whole numerical range encompassed in the Invention.

(2) It can be seen from the description of the Detailed Description of the Invention that the object to be solved by the Invention is to prevent "wine quality" packaged in an aluminum can from being significantly deteriorated in storage, and "wine quality" used herein means "wine taste quality". Further, in view of the description of the Detailed Description of the Invention that, as a result of storage assessment result of white wine, "allowable wine quality was confirmed by a taste panel" through a sensory test by a taste panel after storing a packaged white wine for 6 months at 30°C, it is recognized that there is a disclosure that whether wine quality (taste quality) deteriorates should be determined through a sensory test by a taste panel.

(3) Even in view of the whole disclosure of the Detailed Description of the Invention, there is neither description nor suggestion of whether or not wine taste quality deteriorates only on the basis of an aluminum content in wine stored in an aluminum can.

Furthermore, no evidence is submitted to suggest the common general technical knowledge with regard to the specific correlation between aluminum content in wine stored in an aluminum can and the deterioration of wine taste quality. Thus the above specific correlation is unclear.

(4) In the Detailed Description of the Invention, there is no specific disclosure of levels of chloride and sulfate at the beginning of the storage of a wine in which "allowable wine quality has been confirmed by a taste panel" in the storage assessment test of white wine. Even if these levels should fall within the respective concentration ranges ("chloride of less than 300 ppm" and "sulfate of less than 800 ppm") as defined in the Invention, it cannot be directly seen in the ordinary course of events that these levels were numerical values close to the respective upper limits. Thus, it must be said that it cannot be recognized that the result of the above storage assessment test has confirmed through a test result of a sensory test by a taste panel that "wine taste quality" does not significantly deteriorate in storage over the whole concentration ranges of chloride (less than 300 ppm) and sulfate (less than 800 ppm) included in wine subject to the Invention.

(5) As described above, the Invention cannot be acknowledged as conforming to the support requirement, since it cannot be recognized from the description of the Detailed Description of the Invention and the common general technical knowledge as of the priority date that a person skilled in the art could recognize that the problem to be solved by the Invention could be solved over the whole numerical ranges of a chloride level of less than 300 ppm and a sulfate level of less than 800 ppm that were encompassed in the Invention.

Judgment rendered on August 29, 2019
2018 (Gyo-Ke) 10084 A case of seeking rescission of the JPO decision
Date of conclusion of oral argument: July 9, 2019

Judgment

Plaintiff Barokes Pty Ltd.

Defendant DAIWA CAN COMPANY

Main text

1. The Plaintiff's claim shall be dismissed.
2. Plaintiff shall bear the court costs.
3. The additional period for filing a final appeal and a petition for acceptance of final appeal against this judgment shall be 30 days.

Facts and reasons

No. 1 Object of the Demand

In connection with a trial decision made by JPO on February 20, 2018 with regard to the case of Invalidation Trial No. 2016-800043, a part corresponding to Claims 1 to 8 and 10 to 15 of Patent No. 3668240 shall be rescinded.

No. 2 Outline of the case

1. History of the procedures, etc. in Japan Patent Office

(1) Plaintiff filed a patent application (Patent Application No. 2003-532366. Hereinafter referred to as "the application") with an international filing date of June 5, 2002 (Priority date: September 28, 2001 (hereinafter referred to as "the priority date"), claiming priority in AU) for the invention titled "PROCESS FOR PACKAGING WINE IN ALUMINUM CANS", and a patent right was registered on April 15, 2005 (Patent No. 3668240, Number of claims: 15, hereinafter this patent is referred to as "the Patent" Exhibits Ko 129, 163).

(2) Defendant requested a trial for patent invalidation with respect to the Patent on April 6, 2016 (the case of Invalidation Trial No. 2016-800043).

Plaintiff received an advance notice of trial decision on March 29, 2017. In response, a request for correction (Exhibit Ko 130, hereinafter referred to as "the Correction") was made on July 4 of the same year to the effect that

Claims 1 to 8 and 10 to 15 should be corrected and Claim 9 should be canceled with Claims 1 to 15 of the Scope of the Claims attached to the application as a set of claims and the description should be corrected.

Thereafter, Japan Patent Office accepted the correction of the case on February 20, 2018 and made a decision to the effect that "Patents regarding the inventions according to Claims 1 to 8, 10 to 15 of Patent No. 3668240 shall be invalidated. A non-compliant claim for trial with respect to the invention according to Claim 9 of Patent No. 3668240 should be dismissed by a decision." (Hereinafter referred to as "the trial decision") and its certified copies were served for Plaintiff on March 1 of the same year.

(3) Plaintiff filed a suit on June 21, 2018.

2. The recitation of the Claims

The recitation of Claims 1 to 8, 10 to 15 of the scope of claims after the correction of the case is set forth below (The underlined parts are corrected parts by the correction of the case. Hereinafter, according to the number of a claim, the invention according to Claim 1 is referred to as "Invention 1," etc. Exhibit Ko 130).

[Claim 1]

A process for packaging wine in an aluminum can, said process comprising the steps of:

deliberately producing wine characterized by having free SO_2 of less than 35 ppm and chloride of less than 300 ppm and sulfate of less than 800 ppm as a wine to be packaged in an aluminum can;

filling a two piece aluminum can body with the wine and sealing the can with an aluminum closure such that the pressure within the container is at least 25 psi and wherein the inner surface of the aluminum is coated with a corrosion resistant coating.

[Claim 2]

The process of Claim 1, wherein an increase rate of aluminum content in wine stored in a can upright for 3 months at 30°C is about 30% at the maximum.

[Claim 3]

The process of Claim 1 or 2, wherein said wine further has a total sulfur dioxide level of less than 250 ppm.

[Claim 4]

The process of Claim 1 or 2, wherein said wine further has a total sulfur dioxide level of less than 100 ppm.

[Claim 5]

The process of any one of Claims 1 to 4, wherein said wine has a total nitrate

of less than 30 ppm, a total phosphate of less than 900 ppm, and an acidity calculated as a tartaric acid in a range of 6 g/litre to 9 g/litre.

[Claim 6]

The process of any one of Claims 1 to 5, wherein said wine is chilled before filling.

[Claim 7]

The process of any one of Claims 1 to 6, wherein said corrosion resistant coating is a thermoset coating.

[Claim 8]

The process of any one of Claims 1 to 5 and 7, wherein the headspace after sealing with the closure has the composition of nitrogen 80-97% v/v, and carbon dioxide 2-20% v/v.

[Claim 10]

The process of any one of Claims 1 to 8, wherein said headspace for a 330 millilitre can is in the range 2-5 mm.

[Claim 11]

A filled wine which can be produced by a process of any one of Claims 1 to 8 and 10.

[Claim 12]

The filled wine of Claim 11, wherein said wine is non-sparkling red wine.

[Claim 13]

The filled wine of Claim 11, wherein said wine is non-sparkling white wine.

[Claim 14]

The filled wine of Claim 11, wherein said wine is carbonate red wine.

[Claim 15]

The filled wine of Claim 11, wherein said wine is carbonate white wine.

3. Summary of reasons of trial decision

(1) The reasons of trial decision are as per described in the written decision of the attachment (copy).

It is summarized that, in connection with the Reason 1 for invalidation (lack of inventive step over "Il condizionamento del vino in contenitore d'alluminio", 1992, VIGNEVINI Numero 5, pp. 59 to 64" (Original text Exhibit Ko 1-1, translation Exhibit Ko 1-2, hereinafter referred to as "Exhibit Ko 1") as a main cited reference, which is a publication distributed before the priority date), Reason 2 for invalidation (Nonconformance to enablement requirement), Reason 3 for invalidation (Nonconformance to support

requirement), and Reason 4 for invalidation (Nonconformance to clarity requirement) as Demandant (Defendant) alleges, Reason 2 for invalidation is groundless, but Reasons 1 and 3 for invalidation have a point, and thus the patents according to the Inventions 1 to 8, 10 to 15 should be invalidated, and a demand for trial on the grounds of Reason 4 for invalidation should be dismissed since no subject for trial is left as a consequence of the correction of the case to cancel Claim 9.

Further, the trial decision has divided Invention 1 as set forth below:

"1A. A process for packaging wine in an aluminum can,

1D. said process comprising the steps of:

1B. deliberately producing wine characterized by having free SO_2 of less than 35 ppm and chloride of less than 300 ppm and sulfate of less than 800 ppm as a wine to be packaged in an aluminum can;

1C. filling a two-piece aluminum can body with the wine and sealing the can with an aluminum closure such that the pressure within the container is at least 25 psi and wherein the inner surface of the aluminum is coated with a corrosion resistant coating."

(2) An invention described in Exhibit Ko 1 as the trial decision found (hereinafter referred to as "Exhibit Ko 1 invention") and the common features and different features between the Invention 1 and Exhibit Ko 1 invention are set forth as below:

A. Exhibit Ko 1 invention

"1A'. A process for packaging wine in an aluminum can,

1D'. said process comprising the steps of:

1B'. deliberately producing a sparkling white wine in which a still white wine having free SO_2 of 4 ppm is carbonated as a wine to be packaged in an aluminum can;

1C'. filling an aluminum can body consisting of a container and a lid with the wine and packaging the aluminum can such that the pressure within the container is about 29 psi or higher and wherein the inner surface of the aluminum is coated with varnish as a corrosion resistant coating."

Furthermore, Exhibit Ko 1 invention comprises the following constitution:

"3A'. said wine further has a total sulfur dioxide level of 79 ppm,

6A'. said wine is filled at a cooling temperature,

8A'. the headspace after sealing with the closure has nitrogen."

B. Common features and Different features between Exhibit Ko 1 invention and Invention 1

(Common Feature)

"1A. A process for packaging wine in an aluminum can,

1D. said process comprising the steps of:

1B". deliberately producing wine having free SO_2 of less than 35 ppm as a wine to be packaged in an aluminum can;

1C". filling an aluminum can body consisting of a container and a lid with the wine and sealing the can with an aluminum closure such that the pressure within the container is at least 25 psi and wherein the inner surface of the aluminum is coated with a corrosion resistant coating."

(Different Feature 1)

As "a wine to be packaged in an aluminum can" of the constituent features 1B", regarding "a step of deliberately producing a wine", Invention 1 produces a wine having "less than 300 ppm of chloride and less than 800 ppm of sulfate", whereas Exhibit Ko 1 invention fails to specify that a wine to be produced has "less than 300 ppm of chloride and less than 800 ppm of sulfate".

(Different Feature 2)

Regarding "the step of filling an aluminum can body with the wine and sealing the can with an aluminum closure such that the pressure within the container is at least 25 psi" of the constituent feature 1C", "aluminum can" is a "two piece aluminum can" in Invention 1, whereas "aluminum can" is "an aluminum can consisting of a container and a lid" in Exhibit Ko 1 invention.

(omitted)

No. 4 Judgment of this court

1. Reason 1 for rescission (Errors in the determination of the support requirement)

(1) Described matters of the description

A. The Detailed Description of the Invention of the description (Exhibit Ko 130) has the following descriptions (See the attachment with regard to "Table 1" cited by the following description):

(A) [0001]

Technical Field

The present invention relates to a process for packaging wine in an aluminum can. The present invention also relates to an aluminum can

filled with wine according to the process of the present invention.

[0002]

BACKGROUND OF THE INVENTION

Wine has been produced since the times of the ancient Greeks. It has been stored in many types of containers. These have included timber, pottery, and leather. The use of glass bottles has evolved as the preferred storage means for wine, particularly when stored in quantities less than one litre. While bottles are almost universally used, they have the disadvantages of having relatively high weight and being relatively fragile.

[0003]

For beverages other than wine, such as beer and soft drinks, alternative packages such as metal cans and polyethylene terephthalate (PET) bottles have been widely adopted. These offer advantages of lower weight and greater resistance to breakage. It has been proposed to store wine in such alternative containers. However, attempts to use such packaging types for wine have been generally unsuccessful. Some very low quality wines are stored in polyvinyl chloride containers. It is believed that the reasons for this lack of success has been the relatively aggressive nature of the materials in wine and the adverse effects of the reaction products of wine and the container on the wine quality, especially taste. Wine is a complex product that typically has a pH in the range of 3 to 4. This compares to beer with a pH of 5 or more and many soft drinks with pH 3 or more. However, pH itself is not the sole determinant and it has been found that carbonated cola drinks with a pH as low as 3 may be adequately stored in PET containers. The low pH is the result of the phosphoric acid content in carbonated cola drinks. This may allow the satisfactory use of precoated aluminum cans and PET bottles for these beverages.

[0004]

It would be desirable to package wine in aluminum cans whereby the quality of the wine does not deteriorate significantly on storage.

(B) [0005]

Summary of the Invention

This invention provides in one form a process for packaging wine in aluminum cans including the steps of:

deliberately preparing wine characterized in that it has less than 35 ppm of free SO_2, less than 300 ppm of chloride, and less than 800 ppm of

sulfates; and

filling a two piece aluminum can body with the wine and sealing the can with an aluminum closure such that the pressure within the container is at least 25 psi and wherein the inner surface of the aluminum is coated with a corrosion resistant coating.

[0006]

Preferably the wine is further characterized by having a total sulfur dioxide level of less than 250 ppm, and more preferably 100 ppm.

[0007]

Preferably the wine is further characterized by having total nitrites less than 1 ppm, total nitrates less than 30 ppm, total phosphates less than 900 ppm, and acidity calculated as tartaric acid in the range of 6g/litre to 9g/litre.

[0008]

Preferably the wine is chilled before filling.

[0009]

Preferably the corrosion resistant coating is a thermosetting coating.

[0010]

Preferably the headspace after sealing with the closure has the composition nitrogen of 80-97% v/v, and carbon dioxide of 2-20% v/v.

[0011]

Alternatively the wine is carbonated before the two piece can body is filled with the wine whereby the headspace after sealing is predominantly carbon dioxide.

[0012]

Preferably the maximum oxygen content of the headspace is 1% v/v.

[0013]

Preferably liquid nitrogen is added just prior to the seaming of the closure to the body of the can.

[0014]

Preferably the headspace for a 330 millilitre can is in the range 2-5mm.

(C) [0015]

Detailed Description of the Invention

The wine required for the process of the present invention may be prepared by the use of particular viticulture and wine making techniques as are described below. Alternatively the wine may be prepared by treating

wine with higher than specified levels of constituents and removing or lowering the content of these constituents to those required for the present invention. In this invention the term "wine" is used quite broadly and includes still and sparkling wine as well as fortified wines and wines blended with mineral waters and fruit juices.

[0016]

With regard to viticulture, the absence of undesired materials may be obtained by ensuring that adverse chemical sprays are not used. The use of chemical sprays needs to be monitored as this also affects the total buildup of undesired chemicals in the final wine product. Most vine diseases need heat or humidity to flourish, and unpruned vines enhance this dilemma further, creating the need for chemical spraying.

[0017]

Shade has a major role in producing grape quality, a higher incidence of botrytis, powdery mildew, and down mildew. Once again this requires chemical intervention. Sulfur based fungicides can be used, but they introduce unacceptable levels of sulfur. Unpruned vines have bunches which produce soggy wine with excessive herbaceous and abhorrent flavors. Light is one of the greatest natural assets, too often forgotten and taken for granted. The focus must be "a vine in harmonious balance" within itself. With the correct ratio of grapes, leaves, canes, wood, and roots within this balance occurring, minimal chemical intervention is required.

[0018]

Excessive irrigation's legacy is an "out of balance" crop. A crop where there is a far too abundant canopy produces shaded fruit and in turn late ripening. Also, excessive irrigation prior to harvest overloads the berry with water and chemical uptake, which alters the berry's natural state. Again this often requires a chemical countermeasure further down the processing line. Drip irrigation with a constant electronic soil moisture monitor is the preferred option.

[0019]

Preferably grapes will be hand-picked (with careful attention not to excessively damage the fruit) and should be harvested in a cool (8°C-16°C) environment, preferably at night. Baume in the 13.0-14.0 range with pH 3.1-3.8 for "reds" and 10.0-13.0 Baume and pH 3.0-3.5 for "whites". Minimal sulfur dioxide dusting is required so as to minimize wild yeast

degradation. It is preferred to rely upon wild yeasts for fermentation.

(D) [0020]

For red wines, crushing and de-stemming should occur as soon as possible and preferably within 12 hours of harvesting. De-stemming before crushing is highly recommended so as to produce a higher quality wine. The advantages are an improvement in taste by not containing astringent, leafy herbaceous stems. Possible alcoholic strength increases, by as much as 0.5%, because the stems, which contain water and no sugar, absorb alcohol. An increase in color occurs by avoiding the pigments in the stems. Fermentation with stems allows for more oxygen intake at an accelerated process. We do not require speed when fermenting, only stability and quality. After de-stemming and crushing, the must is pumped to a fermentation vessel, adjusted with tartaric acid, yeast levels adjusted to requirements, and a minimum sulfur dioxide addition.

[0021]

The vessel is fitted with a bubble system so as to allow excessive fermentation gases out, and no oxygen in. Oxygen entry occurs only when punching occurs. This amount of aeration is important for yeast multiplication and complete sugar fermentation.

[0022]

Punching down the skins (every 10-12 hours) at regular intervals and maintaining an ambient temperature of approximately 25°C is crucial in the fermentation process. Dry-cap can allow oxidization, and higher or lower temperatures create their own nemesis on the fermenting juice. Stability during maceration is the key element during the next 14-21 days. Baume is constantly monitored with a daily reduction of 0.7-1.0 Baume being the "benchmark". When the Baume reaches 0°-1° the pomace or grape mass is "basket pressed".

[0023]

Pressing requires careful and astute monitoring. Over-pressing creates heavy astringents, phenolics, and heavy coarse tannins. Balance pressing alleviates the need for eventual heavy chemical fining, unnecessary blending, and chemical intervention.

[0024]

At this stage the combination of free run juice and pressed juice is transferred to pre-sulfited, sterilized, used or new American Oak or French

Oak stored in a naturally controlled temperature environment. The temperature range is 15°C- 25°C. After filling, the barrels are hit a few times with a rubber mallet to dislodge air bubbles and refilled to within 25 mm of the barrel opening. The barrels are fitted with an air lock and the fermentation is allowed to proceed within the barrel. This process takes 3-4 months to complete (the time factor being dependent on the humidity and temperature variations in the host environment). Around this stage malo-lactic fermentation occurs, either by inoculation or naturally if it is endemic in the winery.

[0025]

After fermentation is complete the barrel is racked, cleaned, sterilized, lightly sulfited, and filled and air locks are removed. After filling, the barrels are hit a few times with a rubber mallet to dislodge air bubbles, refilled, and bunged. The barrels are then positioned with the bung at 30° to the vertical.

[0026]

Sediment needs to be removed from young wine so that yeast cells, bacteria cells, and foreign organic substances which create putrid, reduced and hydrogen sulfite can be avoided.

[0027]

Aeration is another natural progression in our quest for excellence. This factor facilitates the completion of yeast transformation and the eventual stability of the wine. Within the fermentation medium, different areas of sedimentation occur, dictating free sulfur dioxide levels to form. Racking synergizes these layers into conformity. Sulfiting requirements at this stage are thus more precise.

[0028]

Frequency of racking is a contentious issue; a time frame of every two to three months in the first year is quite acceptable although in reality factors such as the size of the tank or barrel, temperatures in the cellars, and type of wine will dictate the cellarmaster's decision. His skill and experience will determine the final requirements. Egg white fining at the rate of 1-3 per 100 litres is required to enhance the settling of the suspended material.

[0029]

After ageing in casks for 12-18 months, racking at least 3-4 times,

analyzing, tasting, lightly sulfiting, and (if 100% necessary) acknowledging the wine is sound, free from fermentable sugars and has completely undergone malo-lactic fermentation, the wine is ready for blending. This is the final reward for the efforts put forth in the preceding 12-18 months and the months leading up to harvest.

(E) [0030]

For white wine the grapes are de-stemmed before crushing. The pH of the juice is adjusted to pH 3.0-3.4 with tartaric acid. Skin contact time is dependent on grape variety, sourcing region, ambient temperature, and the quantity of tannins or astringent phenolic requirements. The must is drained under carbon dioxide addition.

[0031]

Fermentation temperature is in the range of 10-16°C. A sugar content reduction between 0.4 and 0.8 Baume is the goal. After fermentation, the wine settling, and racking under carbon dioxide, sulfur dioxide addition occurs.

[0032]

In all procedures pertaining to white wine, exposure to air is to be avoided at all costs, and a cool temperature environment is practiced. Wine prepared as described above has a free sulfur dioxide level less than 35 ppm and a total sulfur dioxide level less than 250 ppm. The levels of anions that may form acids, chlorides, nitrates, and sulfates are less than the prescribed maxima.

(F) [0033]

The invention may also be applied to sparkling wine where nitrogen may not be required in the headspace, as the carbon dioxide may be sufficient to provide the required can strength.

[0034]

The two piece cans suitable for the present invention are cans that are currently used for soft drink and beer beverages. The can linings are also similar and are typically an epoxy resin combined with a formaldehyde based crosslinking agent. Typically the film thickness used is greater than that used for beer or soft drinks. Typically 175 mg/375 ml cans have been found to lead to a suitable film thickness. The internally coated can is baked at temperatures typically in the range 165-185°C for twenty minutes. It is important to ensure a well cross linked impermeable film to ensure that

excessive levels of aluminum are not dissolved into the wine on storage.

[0035]

The can filling process involves the addition of approximately 0.1ml of liquid nitrogen just prior to seaming the closure of the body. The internal pressure in the can is approximately 25-40 psi.

[0036]

Alternatively the wine can be carbonated by mixing the wine with carbon dioxide gas in equipment known as a carbonator. This type of equipment is well known and is extensively used in the soft drink industry.

[0037]

As previously discussed, the storage stability of the wine in the aluminum can is vital. In contrast to bottled wine where the headspace includes oxygen, the headspace in the cans of the present invention has very low levels of oxygen. This means that the wine does not "age" on storage.

(G) [0038]

For test purposes, the packaged wine is stored under ambient conditions for a period of 6 months and at 30°C for 6 months. 50% of the cans are stored upright and 50% are inverted.

[0039]

The product is checked at 2-month intervals for Al, pH, °Brix, headspace oxygen, and visual inspection of the cans, 6 cans inverted and 6 cans upright per variable. Visual inspection includes lacquer conditions, staining of the lacquer, and seam condition. Samples are to be retained for 12 months. Sensory evaluation uses a recognized objective system by a tasting panel.

[0040]

Results for storage evaluation of a white wine are set out in Table 1. A white wine has a lower pH on average than a red wine and is more severe test on storage stability.

[0042]

This data shows satisfactory storage after six months at 30°C. The acceptable quality of the wine was confirmed by the tasting panel.

[0043]

Since modifications within the spirit and scope of the invention may be readily effected by persons skilled in the art, it is to be understood that the

invention is not limited to the particular embodiment described, by way of example, hereinabove.

B. According to the described matter of the aforesaid A, it is recognized that the Detailed Description of the Invention has the following disclosure with regard to Invention 1.

(A) Bottles commonly used as a package container of wine have the disadvantages of having relatively high weight and being relatively fragile. Thus it is proposed to store wine in metal cans and polyethylene terephthalate (PET) bottles that offer advantages of lower weight and greater resistance to breakage. Such attempts to use such packaging types for wine have been generally unsuccessful. It is believed that the reasons for this lack of success have been the relatively aggressive nature of the materials in wine and the adverse effects of the reaction products of wine and the container on the wine quality, especially taste. ([0002], [0003]).

However, it would be desirable to package wine in aluminum cans whereby the quality of the wine does not deteriorate significantly on storage ([0004]).

(B) "The present invention" provides a process for packaging wine in aluminum cans including the steps of: deliberately preparing wine characterized in that it has less than 35 ppm of free SO_2, less than 300 ppm of chloride, and less than 800 ppm of sulfates as a wine to be packaged in an aluminum can; and filling a two-piece aluminum can body with the wine and sealing the can with an aluminum closure such that the pressure within the container is at least 25 psi and wherein the inner surface of the aluminum is coated with a corrosion resistant coating ([0005]). The wine required for the process of "the present invention" may be prepared by the use of particular viticulture and wine making techniques. Alternatively the wine may be prepared by treating wine with higher than specified levels of constituents and removing or lowering the content of these constituents to those required for the present invention ([0015]).

Table 1 of the attachment shows a storage state after storing a packaged white wine for 6 months at 30°C, for test purposes, in which "allowable wine quality" was confirmed by a taste panel through a sensory test ([0038] to [0042]).

(2) Conformance to Support Requirement

A. Article 36, paragraph (6), item (i) of the Patent Act specifies that the recitation of the scope of the claims must not go beyond the scope of the invention described in the Detailed Description of the Invention. The gist is to prevent the scope of the claims from reciting an invention not described in the Detailed Description of the Invention, since this would result in claiming a monopolistic and exclusive right for an invention not disclosed, and thus it is not reasonable.

Consequently, regarding the invention including a predetermined numerical range in matters specifying the invention, whether or not the recitation of the scope of the claims conforms to the requirement as provided in the same item (support requirement) should be determined by considering whether or not a person skilled in the art could recognize from the description of the Detailed Description of the Invention and the common general technical knowledge as of the filing that the problem to be solved by the invention might be solved over the whole numerical range encompassed into the Invention.

B(A) When it comes to this case, according to the recitation of the scope of the claims of Invention 1 (Claim 1), Invention 1 relates to an invention of a process for packaging wine in an aluminum can, which includes the step of deliberately preparing wine characterized in that it has "less than 35 ppm of free SO_2", "less than 300 ppm of chloride", and "less than 800 ppm of sulfates" as a wine to be packaged in an aluminum can. Thus it can be said to be an invention including a predetermined numerical range in matters specifying the invention.

Subsequently, there is no explicit disclosure of the object to be solved by Invention 1 in the Detailed Description of the Invention; however, it can be seen from the description of [0002] to [0004] (aforesaid (1)B(A)) that the object of the Invention 1 is to prevent "wine quality" packaged in an aluminum can from being significantly deteriorated in storage, and "wine quality" used herein means "wine taste quality".

Further, in view of [0038] to [0042] and Table 1 of the description that "allowable wine quality was confirmed by a taste panel" through a sensory test by a taste panel after storing a packaged white wine for 6 months at 30°C as a result of a storage assessment result of white wine, it is recognized that there is a disclosure in the description the Detailed Description of the Invention that it

should be determined through a sensory test by a taste panel as to whether wine quality (taste quality) deteriorates.

On the other hand, regarding the aforementioned wine which "allowable wine quality was confirmed by a taste panel", Table 1 describes an aluminum content of 0.72 mg/L, a content increase rate of 44% (a can stored "upright"), an aluminum content of 0.68 mg/L, and a content increase rate of 36% (a can stored "inverted") in the column of "Al mg/L" and the column of "Al content increase rate (%) from initial" corresponding to a stored period of "6 months" as per the attachment; however, there is no specific disclosure of each levels of chlorine and sulfate at the beginning of storage ("initial") of the wine even in view of the whole disclosure of the Detailed Description of the Invention including Table 1.

Further, in view of the description of [0003] of the description that "it is believed that ... the relatively aggressive nature of the materials in wine and the adverse effects of the reaction products of wine and the container on the wine quality, especially taste." and [0034] that "It is important to ensure a well cross linked impermeable film to ensure excessive levels of aluminum are not dissolved into the wine on storage.", it can be seen that "excess level of aluminum" eluted into wine from an aluminum can has an adverse effects on wine taste quality; however, even in view of the whole disclosure of the Detailed Description of the Invention, there is neither description nor suggestion of whether or not wine taste quality deteriorates only on the basis of an aluminum content in wine stored in an aluminum can.

Furthermore, no evidence is submitted to suggest the common general technical knowledge with regard to the specific correlation between aluminum content in wine stored in an aluminum can and the deterioration of wine taste quality. Thus the above specific correlation is unclear. First of all, it is recognized that it was a matter of common general technical knowledge as of the priority date that there was a problem that hydrogen sulfide generates through an oxidation-reduction reaction between free SO_2 and aluminum and this hydrogen sulfide deteriorates wine flavor (Exhibits Ko 50, 51, etc.). Even in view of such common general technical knowledge, it cannot be said that it can be determined as to whether wine taste quality deteriorates only on the basis of an aluminum content in wine, regardless of free SO_2 concentration.

Consequently, it can be seen from the description of the Detailed Description of the Invention that a method for confirming whether the object to

be solved by the Invention 1 ("to prevent wine quality packaged in an aluminum can (taste quality) from being significantly deteriorated in a storage") may be solved has to depend on a test result of sensory test by the taste panel.

(B) Consequently, as per the aforesaid (A), the Detailed Description of the Invention has no specific disclosure of levels of chloride and sulfate at the beginning of the storage of a wine ("Initial") in which "allowable wine quality has been confirmed by a taste panel" in the storage assessment test of white wine ([0038] to [0042] and Table 1). Even if these levels should fall within the respective concentration ranges ("chloride of less than 300 ppm" and "sulfate of less than 800 ppm") as defined in Invention 1, it cannot be directly seen naturally that these levels were numerical values close to the respective upper limits. Thus, it must be said that it cannot be recognized from the result of the above storage assessment test that it has been confirmed through a test result of a sensory test by a taste panel that "wine taste quality" does not significantly deteriorate in storage over the whole concentration ranges of chloride (less than 300 ppm) and sulfate (less than 800 ppm) included in wine subject to Invention 1.

Further, according to Exhibit Ko 1 and Exhibit Ko 43 ("Characteristics and corrosion problem of aluminum can", 2002, Zairyo-to-kankyo, 51, pp. 293-298), it is recognized that it was a matter of common general technical knowledge as of the priority date that of common substances composing wine, organic acids such as malic acid and citric acid become a cause of corrosion of aluminum other than free SO_2, chlorine ion ($Cl^{-)}$, and sulfate (SO_4^{2-}). In view of such common general technical knowledge, it can be seen that the Detailed Description of the Invention fails to describe a wine composition used in the storage assessment test of white wine; however, these causal substances of aluminum corrosion also include components of the wine, and are likely to have an impact on an aluminum content corresponding to a storage period of "6 months" of Table 1 and a test result of a sensory test by a taste panel.

As described above, Invention 1 cannot be acknowledged as conforming to the support requirement, since it cannot be recognized from the description of the Detailed Description of the Invention and the

common general technical knowledge as of the priority date that a person skilled in the art could recognize that the problem to be solved by Invention 1 could be solved over the whole numerical ranges of a chloride level of less than 300 ppm and a sulfate level of less than 800 ppm that were encompassed into Invention 1.

(3) Plaintiff's allegation

It is stated in the description that [i] chlorine and sulfate levels in wine vary depending on the difference in producer country/region, variety, harvest year, production condition, etc., and each level varies across the wide range. Chlorine level ranges from 3 ppm to 1148 ppm. Sulfate level ranges from 38.6 ppm to 2420 ppm. There are various wines including "300 ppm" or more of chlorine and "800 ppm" or more of sulfate (Exhibits Ko 31, 59 to 63, 136-1), [ii] "Fresh water" is water with a saline concentration of 500 ppm or less and a chlorine concentration of about 300 ppm or less (Exhibits Ko 137-1, 2, 139, 140), [iii] it was a matter of common general technical knowledge that chlorine ion (Cl^-) and sulfate (SO_4^{2-}) are the ions that become a cause of local corrosion of aluminum and stainless (pitting corrosion of passive film) (Exhibits Ko 78, 80 to 84, 137-1, 2) as well as the description that "It is believed that the reasons for this lack of success has been the relatively aggressive nature of the materials in wine and the adverse effects of the reaction products of wine and the container on the wine quality, especially taste." ([0003]) as of the priority date, Plaintiff alleges that a person skilled in the art could easily recognize the effects of the Invention 1 to securely prevent wine with high levels of these causal substances for corrosion from being packaged in an aluminum can by packaging wine satisfying the requirement of "less than 35 ppm" free SO_2, "less than 300 ppm" chlorine, and "less than 800 ppm" sulfate, which specifies that causal substances for corrosion of aluminum in wine are "low" levels, and a person skilled in the art could easily recognize that Invention 1 could solve the problem "to package wine in aluminum cans whereby the quality of the wine does not deteriorate significantly on storage" (a problem "to prevent wine quality (taste, color, fragrance) from being significantly deteriorated in storage by aluminum ion and hydrogen sulfide, which may be increased in wine during storage due to the corrosion of aluminum can"), and further, one can easily recognize that the effects of preventing corrosion of aluminum can are promoted as the level of a causal substance for corrosion of aluminum can of

"chlorine" gets lower than 300 ppm, and as the level of a causal substance of "sulfate" gets lower than 800 ppm, and in view of these facts, a person skilled in the art could obviously recognize that the effects of Invention 1 are the effects caused in the whole scope of the claims, without considering the test result described in [0038] to [0042] of the description, a person skilled in the art could recognize from common general technical knowledge as of the priority date that Invention 1 falls within a scope where a person skilled in the art could recognize the problem to be solved by Invention 1 from the remaining description of the Detailed Description of the Invention and the recitation of the scope of the claims of Invention 1, and thus Invention 1 conforms to the support requirement.

As per the aforesaid finding (2)B(A), however, the problem to be solved by Invention 1 is recognized as preventing "wine taste quality" packaged in an aluminum can in storage from being significantly deteriorated. Even in view of the common general technical knowledge of the above [i] to [iii] as of the priority date as Plaintiff alleges, it cannot be acknowledged that a person skilled in the art could recognize from the description of the Detailed Description of the Invention that Invention 1 solved the above problem to be solved by Invention 1 by the effects caused by packaging wine satisfying the requirement of "less than 35 ppm" free SO_2, "less than 300 ppm" chlorine, and "less than 800 ppm" sulfate.

Further, as Plaintiff alleges, even if one can say that the effects of preventing corrosion of aluminum can should be promoted as the level of a causal substance for corrosion of aluminum can of "chlorine" gets lower than 300 ppm, and as the level of a causal substance of "sulfate" gets lower than 800 ppm, as per the finding of the aforesaid (2)B(A), the specific correlation between aluminum content in wine stored in an aluminum can and the deterioration of wine taste quality is not clarified. A method for confirming whether the object to be solved by Invention 1 may be solved has to depend on a test result of sensory test by the taste panel. Further, as per the aforesaid (2)B(B), it cannot be recognized from [0038] to [0042] of the description and the result of the above storage assessment test of white wine of Table 1 that it has been confirmed through a test result of a sensory test by a taste panel that "wine taste quality" does not significantly deteriorate in storage over the whole concentration levels of chloride (less than 300 ppm) and sulfate (less than 800 ppm) included in wine subject to Invention 1.

Therefore, the Invention cannot be acknowledged as conforming to the support requirement, since it cannot be recognized from the description of the Detailed Description of the Invention and the common general technical knowledge as of the priority date that a person skilled in the art could recognize that the problem to be solved by the Invention could be solved over the whole numerical ranges of chloride level of less than 300 ppm and sulfate level of less than 800 ppm that were encompassed into the Invention. Thus the above Plaintiff's allegation is not acceptable.

(4) Summary

As described above, Invention 1 does not conform to the support requirement, and thus the determination of the trial decision to the same effect is not erroneous. Further, Inventions 2 to 8 and 10 to 15 directly or indirectly depending from and including the matters specifying Invention 1 (Claim 1) do not conform to the support requirement, since Invention 1 does not conform to the support requirement, and thus the determination of the trial decision to the same effect is not erroneous.

Therefore, the Reason 1 for rescission presented by Plaintiff is groundless.

2. Conclusion

As described above, Reason 1 for rescission presented by Plaintiff is groundless, and thus the Plaintiff's claim should be dismissed without the determination of the remaining reasons for rescission.

Intellectual Property High Court, Fourth Division

Presiding Judge: OTAKA Ichiro

Judge KOKUBU Takafumi

Judge HAZUI Takuya

(Attachment)

Table 1

Storage	°Brix (20°C)	Orientation	Al mg/L	pH	Increase rate of Al content from the initial (%)
Initial	6.7	-	0.5	3.40	-
3 months	6.9	Upright	0.65	3.47	30
3 months	6.5	Inverted	0.68	3.47	36
6 months	7.0	Upright	0.72	3.49	44
6 months	7.0	Inverted	0.68	3.50	36