

Compliance Guidelines for Retained Water

The Retained Water In Raw Meat And Poultry Products (January 9, 2001) [final rule](#) requires that establishments produce those products with either no retained water or only the amount of water that is an unavoidable consequence of the process to meet food safety standards, such as the *Salmonella* performance standards. The amount of water retained must be specified on the product label. As noted in the preamble to the final rule, the Agency is not prescribing a method to determine added or retained water. The Agency is, however, requiring the establishment to prepare and have on file a written data collection protocol and the data for determining unavoidable moisture retention. If the establishment has data on file regarding retained water, such as antimicrobial spray testing for meat or air chilling for poultry, additional data collection may not be necessary.

In addition to the final rule, FSIS is issuing these compliance guidelines with attached model data collection protocols. These compliance guidelines are designed to assist establishments in developing their data collection protocols, maintaining operational control of their process, and properly labeling the finished product.

Protocol Development

Protocols for data collection must be placed on file and made available to FSIS. The Agency will review the protocols. The nine expected elements of a protocol are listed below. Examples of expected content are noted for each element. In the examples, the term chilling refers to poultry and cooling refers to meat.

1. Purpose Statement

State the primary purpose of the protocol. The primary purpose should be to determine the amount or percentage of retained water that is unavoidable while achieving the regulatory performance standard for *Salmonella* and the time/temperature requirements for chilling. Additional purposes could be to evaluate product quality and to determine chilling system efficiency.

Example 1: The primary purpose of this protocol is to determine the amount of water absorption and retention by young chicken carcasses that is unavoidable while meeting the regulatory pathogen reduction standard for *Salmonella* set forth in the PR/HACCP regulations [[9 CFR 381.94](#)] and the time/temperature requirements set forth in [9 CFR 381.66](#).

Example 2: The primary purpose of this protocol is to determine the amount of water absorption and retention by beef carcasses that is unavoidable while meeting the regulatory pathogen reduction standard for *Salmonella* set forth in the PR/HACCP regulations [[9 CFR 310.25\(b\)](#)]. The protocol also will be used to evaluate product quality.

2. Type of washing and chilling/cooling system used by the establishment.

Describe any post-evisceration washing or chilling/cooling processes that affect the water retention levels by, and microbial loads, on raw products. For poultry establishments, describe the main chiller types, e.g., the drag-through, the screw type, and the rocker-arm type, identified by the mechanism used to transport the birds through the chiller or to agitate the water in the chiller. For meat establishments, describe the type of coolers, e.g., blast freezers, refrigeration systems, or hot boxes.

3. Configuration and any modifications of the chiller/cooling system components.

Describe the chiller/cooling-system configurations and modifications, including the number and type of chillers/coolers in a series and arrangements of chilling/cooling system components, and the number of evisceration/kill lines feeding into a chiller/cooling system. Accurately describe the purpose and type of equipment used if there is a pre-chilling/cooling step in the process. Describe any mechanical or design changes to the chilling/cooling equipment.

4. Special features in the chilling/cooling process.

Describe any special features in the chilling/cooling process, including antimicrobial treatments, length and velocity of the dripping line, and total time allowed for dripping. Explain any special apparatus, such as a mechanism for removing excessive water from cooled meat or chilled birds.

5. Description of variable factors in the chilling/cooling system.

Describe variable factors that affect water absorption and retention.

In poultry processing, such factors include:

- scalding temperature
- pressure and amount of buffeting applied to the birds by feather removal machinery and its effect on loosening the skin
- method used to open the bird for evisceration
- temperature of the pre-chiller
- water temperature of chiller
- agitation including air agitation if used
- time in the chiller water

In meat processing, such factors include:

- scalding temperature (hog carcasses)

- amount and intervals of antimicrobial chill sprays
- time in cooler rooms

6. **Standards to be met by the chilling system.**

The *Salmonella* pathogen reduction standards, as set forth in the PR/HACCP final rule, have been suggested as the standard for pathogen minimization. Although there is not yet an applicable *Salmonella* standard for turkeys, guidance standards are listed in Attachment 4 of FSIS Notice 22-01, "Procedures for FSIS personnel during pre-implementation period for 'Retained water in raw meat and poultry products; poultry chilling requirements.'" (A permanent FSIS Directive will replace this Notice.) As stated in the Notice, establishments producing turkey products are free to adopt other microbiological targets or surrogate microorganisms, such as *E. coli*, *Campylobacter*, or reductions in numbers of other microorganisms. However, the acceptability of the surrogate microorganism in raw poultry or meat depends on an expert determination that there is a correlation between the surrogate and *Salmonella*.

The chilling system for ready-to-cook poultry may be designed simply to achieve a reduction in the temperature to less than 40°F within the time limit specified by the regulations. On the other hand, the time for temperature reduction in meat may be based on that amount of time, or less, necessary to meet the performance standard for *Salmonella* and minimize the retention of water in the final product.

7. **Testing methods to be employed.**

Describe testing methods used both for measuring water absorption and retention and for sampling and testing product for pathogen reductions at various chilling equipment settings and chilling time-and-temperature combinations. The method for calculating water absorption and retention should be reproducible and statistically verifiable. For pathogen reduction testing, FSIS recommends the methods used for *E. coli* and *Salmonella* testing under the PR/HACCP regulations. The pathogen reduction standards are based on a percentage of positive samples rather than the microbial load per carcass or carcass part. The number of samples, type of samples, sampling time period, type of testing or measurement, and the test results should be included.

The trials should represent processing procedures that can be maintained in the establishment. It is understood that very small plants or those establishments producing a very small volume of the product may experience a greater variation in measurements than plants producing a large volume of the products.

Initially, the establishment would perform several trials to determine the amount of unavoidable retained water, if any, in achieving the food safety standard. The establishment would have to determine the variables in the process that would affect the amount of retained water. For example, time in the chiller/cooler may be a variable to consider. In each trial the water retention data and *Salmonella* levels would be plotted. When the water retention data showed an increase in

Salmonella, the time in the chiller/cooler before the increase could be the maximum amount of time allowable. However, if an antimicrobial rinse was used, the amount of time in the chiller/cooler may be further reduced.

The primary purpose of the protocol is to determine the amount or percentage of retained water that is unavoidable while achieving the regulatory performance standard for *Salmonella*. However, the percentage of samples positive for *Salmonella* should not increase. It would not be regarded as acceptable to reduce the amount of retained water with a resultant increase in *Salmonella*, or surrogate microorganism, even if the increase in *Salmonella* met the performance standard.

8. Reporting of data and evaluation of results.

Explain how data obtained are to be reported and summarized. Examples of reported information include, but are not limited to, the number of sample replicates, reporting of *Salmonella*, and the calculation or formula used to determine the level of water retention. In addition, the criteria for evaluating the results and the basis for conclusions to be drawn should be explained.

9. Conclusions

Explain what the data demonstrate, the conclusions reached, and how the conclusions were reached.

Process Control

Once a meat or poultry establishment has determined the amount of water that is unavoidable in meeting applicable food safety requirements, the establishment must keep the water retention level in its products from exceeding that amount. The establishment must be able to ensure, on a continuing basis, that the amount of retained water in its raw products is unavoidable ([9 CFR 441.10\(a\)](#)), and that the product labels state the amount of retained water ([9 CFR 441.10\(b\)](#)). To be able to do this consistently, the establishment should have good process control.

A process would be considered under control if there is a reasonable confidence (i.e., 95% statistical confidence) that a given package in a lot retains no more water than is unavoidable. That is, considering measurement and processing variables, there should be 95% confidence that the continuing measurements are within 20% of the moisture level determined at that establishment.

If the establishment fails to meet the performance standards for *E. coli* and *Salmonella*, it should consider reevaluating its process with regard to retained water in addition to reassessing its HACCP plan.

Labeling Retained Water Products

Establishments will be required to include a retained water statement on labeling of raw, single-ingredient, whole, ground or cut-up meat or poultry products that retain water that

is used in meeting food safety requirements during post-evisceration processing, e.g., chilling. Retained water is not regarded as intentionally added or as a product ingredient. However, the labeling of products with retained water must bear a prominent statement on the principal display panel disclosing the maximum amount of water, and how it got incorporated, e.g., “contains up to X% retained water,” or “with X% absorbed water.” The retained water statement must be prominently located on the principal display panel of the label and could be contiguous to the name of the product. [Refer to Retained Water – Sample Labels](#).

Prominence of the retained water statement is determined by several factors, including size of lettering in the statement compared with other lettering on the label, location of the statement, and color contrast between the lettering and the background. There is no specific letter size requirement for the percent-retained water statement.

Establishments having data or information to demonstrate that their products do not contain retained water will not be required to label the products with such a statement and could include a “no retained water” claim on the label. Processors can modify existing labels by use of pressure sensitive stickers or indelible ink rubber stamps bearing the percent-retained water statement or a “no retained water” claim. This type of label change is possible under the generic label approval regulations.

The generic labeling regulations [9 CFR 317.5](#) and [381.133](#) and the nutrition labeling regulations [9 CFR Part 317 Subpart B](#) and [Part 381 Subpart Y](#) apply to retained water products as they do to other single-ingredient products.

Multi-Ingredient Product

Multi-ingredient product labeling is not affected by retained water in a meat or poultry component. Thus, retained water is not an ingredient, and the retained water statement on meat or poultry components is not an ingredient declaration. Refer to product examples.

1. Any retained water in raw meat or poultry items used as ingredients would not be declared on the labeling of multi-ingredient products, e.g., raw or cooked sausage, pre-basted turkeys, or deli meats.
2. Retained water has no effect on the declared amount of flavor solution in basted, marinated, injected, tumbled, etc. products.
3. Standards of identity or composition are not affected by the retained water rule.

Labeling Questions and Answers

The Q&A's numbered from 1 through 18 first appeared in [FSIS Directive 6700.1, Amendment 1](#).

1. If a plant determines through testing that the amount of retained moisture in a particular item is a fractional percentage (e.g., 0.3, 0.4, 0.5, or 1.3 percent, etc.), how would the agency expect this to be labeled?

Answer: As with nutritional labeling, rounding rules would apply (i.e., round to the nearest whole number). Therefore, labeling of fractional percentages of retained water would not be required. For example, 0.5 percent-retained water is rounded up to 1 percent and 1.3 percent is rounded down to 1 percent.

2. Are labeling statements permitted explaining the purpose of the retained water, e.g., “for safety purposes contains up to X percent retained water?”

Answer: Explanatory statements regarding the retained water will be reviewed by the Labeling and Consumer Protection Staff on a case-by-case basis since they are viewed as special claims. The statements will be evaluated to determine whether they misrepresent products or imply that products are safer than other similarly chilled products.

3. Is there a size requirement for the prominent lettering in the retained-water statement?

Answer: There is no letter size requirement for the percent-retained-water statement, but if the lettering is inconspicuous or not visible to consumers with normal visual acuity, it is not prominent. Prominence is determined by several factors, including size of lettering in the statement compared with other lettering on the label, location of the statement, and color contrast between the lettering and the background.

4. Can the term “moisture” be used instead of the term “water” within the retained water statement?

Answer: The term “moisture” is not acceptable since it does not convey the specific substance used during the post-evisceration chilling of the product.

5. Is the retained water statement required on a shipping container label when the product inside is packaged and labeled?

Answer: The shipping container is not required to bear a retained water statement since the regulation addressing the labeling of retained water products applies to the principal display panel of immediate containers. Shipping containers holding packaged and labeled products do not have principal display panels.

6. Most meat carcasses, half carcasses, and primals are shipped from the establishment with only the mark of inspection identifying them. If the carcass gains water as a result of the chilling process, a water retention statement is required. How could an establishment meet this requirement if it is shipping full and half carcasses and primals to other establishments for further processing into retail cuts, ground beef, etc?

Answer: Retained water in red meat carcasses, half carcasses, quarters, primals, or byproducts that are simply branded with a mark of inspection would also need to be declared with a prominent retained water statement. This could be accomplished by adding the retained water statement by branding or affixing with a secure tag.

7. Can pressure sensitive stickers be used to modify the percent-retained water statement and is handwriting permitted for the value of the retained water?

Answer: Pressure sensitive stickers may be applied to labeling to modify the percent-retained water statement. This type of change is a generic approval. Handwriting is not permitted for the value of the retained water because a legibility factor involved with handwriting. The value should be uniform and produced by mechanical means as with other mandatory features.

8. The label contains a “no retained water” claim. Does the 20 percent variation apply?

Answer: The 20 percent variation permitted for the retained water statement would not apply when a no retained water claim is made on labeling. Rounding rules apply. Thus, the product could not retain more than 0.49 percent water such that the rounded amount of water is 0 percent.

9. How does retained water affect restricted ingredients, e.g., bacon?

Answer: The levels for restricted ingredients remain the same as indicated in the substance chart, [9 CFR 424.21\(c\)](#), e.g., sodium nitrite and sodium erythorbate are based on the weight of the meat or poultry product regardless of the amount of water possibly retained in the meat or poultry as a result of post-evisceration processing.

10. Does the regulation cover products that may be treated with water which produces no gain in net weight of the finished product?

Answer: The regulation, including its requirement of the submission of protocols, deals with products for which the manufacturer anticipates a particular water-based weight gain, is targeting its procedures to control that gain, and will label its products accordingly. As a result, establishments that anticipate zero weight gain are not required to develop and submit protocols. Such establishments should, however, maintain records that demonstrate through data or information that their product does not gain water as a result of the process.

11. Does the regulation apply to intermediate (in-process) processing steps?

Answer: No. The regulation focuses on the labeling of single-ingredient finished products as they leave the establishment. Procedures, such as the application of antimicrobial solutions or of water that may temporarily contribute weight to the product, need not be declared. However, establishments are expected to maintain data clearly demonstrating that the finished products do not retain water.

12. Is it acceptable to export products with retained water without labeling bearing a percentage retained water statement?

Answer: Deviations from domestic labeling rules are permitted in accordance with [9 CFR 317.7](#) or [381.128](#). However, the labeling record at the Federal establishment and in the label submission must assure that the labeling deviation is in accordance with the specifications of the foreign purchaser and with the laws of the foreign country. Additionally, the shipping container must be labeled to show that the product is intended for export. The documentation can be provided by the importer, the exporter, or an official with the foreign government of the country to which the product is destined. (NOTE: Labels for export product that deviate from the domestic requirements cannot be generically approved and must be submitted to the Labeling and Consumer Protection Staff for approval).

13. Can one document, i.e., letter, be applied to multiple products for export?

Answer: Yes, if the documentation is complete by indicating all exported products with labeling deviations and is only for the country to which the products are destined.

14. Does the retained water rule apply to ice-glazed poultry?

Answer: Yes. A retained water statement is required because the product is single ingredient regardless of whether the product is ice-glazed or not. The ice-glaze is not an ingredient; its purpose is to prevent shrinkage during freezing.

15. How are single-ingredient products with retained water (e.g., bearing contains X percent retained water statements) handled when they are sent in bulk to retail stores for packaging? What effect would in-store cut-up or grinding operations have on the labeling of single-ingredient products with retained water at the retail store?

Answer: The retained water statement that is applied to the cuts or ground products would be the same as the retained water statement that was applied to the bulk product. However, the retail store may choose to show through documentation that less or no water is retained in the cuts or ground product and to label the product accordingly.

16. What happens to a product when the retained water declaration exceeds the 20 percent label declaration?

Answer: The company has two options. One is to accurately re-label the product. The other option would be to allow the product to drain so that the retained water statement is truthful. This may involve re-packaging the product unless the product is ice pack poultry in drainable containers.

17. How is the retained water statement handled with chitterlings since the product is allowed to be packaged with up to a 20 percent purge?

Answer: Many years ago, before 1992, FSIS allowed, under normal conditions and good manufacturing practices, purge in containers of chitterlings not to exceed 20 percent of the marked weight of the product. The policy is long-held and is practiced industry wide. Consumers who purchase

this product are aware of the policy and practice and have come to expect moisture content in chitterlings. As a result of this long-standing policy, no retained water statement is required when chitterlings are packaged with a purge. If chitterlings retain water during post evisceration processing and are not packaged with a purge, the product's labeling is required to bear a retained water statement.

18. What is FSIS position regarding the use of water in thawing process?

Answer: Frozen meat, meat byproducts, poultry, or poultry byproducts are often thawed using chilled water. Establishments have to assess whether the product is absorbing water during the thawing process. If the final product is raw, single-ingredient, and absorbed water during the thawing process, a retained water statement is necessary. However, if the final product is subsequently processed into a multi-ingredient item or cooked, the retained water is not a labeling or standards concern.

Labeling Questions and Answers Not Addressed in [Directive 6700.1](#), [Amendment 1](#)

General Labeling Issues

19. Is ice chilling of single-ingredient product subject to the retained water rule?

Answer: Yes when ice is directly applied to single-ingredient raw carcasses or parts for food safety purposes and the product consequently gains water, they are subject to the retained water regulation. Similarly, raw single-ingredient carcasses or parts mixed with iced used for food safety purposes that are consequently processed into single-ingredient products are subject to the retained water rule, e.g., iced frames and/or shells processed through a mechanical deboner for mechanically separated poultry. Water in excess of naturally occurring moisture at a level at or above 0.5 percent would require a prominent retained water declaration on the label. The establishment must maintain a written data-collection protocol on file in accordance with the retained water regulation. Conversely, an establishment does not have to maintain a protocol on file if it has data or information that clearly demonstrate that its raw single-ingredient product does not retain water as a result of a food safety process, e.g. ice chilling of frames or shells for food safety purposes where the end product does not retain water from the ice treatment.

20. Is it acceptable to indicate the percentage of retained water on a pricing label that is placed on the principal display panel of raw single-ingredient parts packaged in a tray-pack or a raw single-ingredient carcass in a bag? Would the statement on a pricing label meet the requirement that the statement is on the principal display panel?

Answer: Yes, the location requirement is met when the retained water statement is placed on the weight and price sticker (in an area that is not intended for the weight or price), which is subsequently placed on the principal display panel. Of course, the retained water statement must be prominent.

21. Can the retained water statement be placed on a hang-tag at the neck of a netted bag containing a vacuum packaged meat or poultry product with retained water?

Answer: Yes, the retained water statement can be placed on a hang-tag as long as the statement is prominent and readily visible to the consumer.

22. Can meat or poultry with retained water be irradiated?

Answer: Yes, in accordance with the current Federal meat and poultry inspection regulations.

23. Can meat or poultry with retained water bear the claims natural,” “100 %,” or “pure?”

Answer: Yes, in accordance with the regulations and policies on the use of these claims.

24. If the water retention statement is added to a bi-lingual label, does it need to be in both languages?

Answer: Yes, the water retention statement should be in both languages.

25. Are giblets that are inserted into the cavity of a whole poultry carcass subject to the retained water regulations?

Answer: Yes. A whole carcass with giblets is regarded as a single-ingredient product in the same manner that a package of poultry parts, e.g., drumsticks, thighs and breasts are a single ingredient product.

26. How is mixed percent meat or poultry with retained water labeled when packaged together, e.g., packaged cuts or whole birds packaged with necks and giblets?

Answer: The labeling for meat or poultry with retained water from different sources bearing different retained water statements can be easily accomplished by labeling the product with a highest range statement from the multiple suppliers, e.g., “less than

6% retained water.” A range statement with the highest value clearly indicates that a range is present, e.g., "may contain up to X% retained water" or "not more than X% absorbed water." As an option, the label could bear separate retained water statements for each item within the package, e.g., “whole bird with 5% retained water, necks with 3% retained water and giblets with up to 2% retained water.”

27. Could check-off blocks be used on immediate container labeling for identifying different retained water statements?

Answer: Yes, provided, establishment operators develop a control procedure which would ensure correct labeling of the packaging of end products that look alike but contain varying amounts of retained (absorbed) water. The procedure should demonstrate what steps the establishment operators will take so the appropriate retained water statement check-off block will be marked and how the company will monitor the product to ensure proper labeling. The procedure is part of the labeling record. This information is similar to [FSIS Directive 7220.1](#), Policy Memo 083A Check-Off Blocks on Labeling. Can the labeling of product that has been fabricated into cuts or ground products from carcasses and parts bear retained water statements with lesser values or no value?

28. Can the labeling of product that has been fabricated into cuts or ground products from carcasses and parts bear retained water statements with lesser values or no value?

Answer: Yes, however, the company should have data on file that shows the loss. The method used for determining the loss is the company’s choice but results of the data should be reproducible and verifiable.

29. Can an average be used for the retained water statement when meat or poultry with different retained water levels is packaged together and labeled?

Answer: No, the labeling would bear a statement reflecting the highest range, e.g., “less than 4% retained water” or “contains up to 3% retained water” unless the company can document a loss. The method used is up to the company but the results should be reproducible and verifiable.

30. Can an added solution statement like those on marinated product labeling be used in place of a retained water statement?

Answer: No, an added solution statement may not be used on a raw, single-ingredient meat or poultry products in which retained water is merely the by-product of a process intended to meet applicable food safety requirements. Added solution statements are only permissible when water is used as an ingredient rather than absorbed during a process intended to achieve a food safety objective.

31. Are absorbent pads used to absorb moisture in packages of product part of the net weight of the product?

Answer: It varies depending upon the jurisdiction, i.e., wet tare jurisdiction versus dry tare jurisdiction to determine net weight. Compliance with net weight regulations is determined by following the wet-tare and dry-tare procedures in National Institute of Standards and Technology Handbook 133, which are incorporated by reference in FSIS regulations [9 CFR 317.19](#) and [381.121\(b\)](#).

32. Can retained water in the product be tared out of the net weight so that the retained water statement does not have to be labeled?

Answer: No.

33. Can the purge during shipping and distribution be subtracted from the amount of retained water absorbed during post-evisceration processing for the purpose of labeling with the retained water statement based on the loss of the purge?

Answer: No.

34. Can a rubber stamp with indelible ink be used to mark labeling with the retained water statement?

Answer: Yes, the marking of labeling with a rubber stamp coated with indelible ink is permissible as long as the statement is prominent and located on the principal display panel.

35. Is mechanically separated meat or poultry subject to the retained water rule?

Answer: Yes, as long as the product is raw and single-ingredient.

36. Do insert labels have to bear a retained water statement?

Answer: No. They are not required to bear the retained water statement. While the insert label is not required to bear the retained water statement, the retained water statement must prominently appear on the principal display panel.

37. Are raw single-ingredient meat and poultry products processed prior to January 9, 2003, and warehoused in cold storage subject to the retained water rule?

Answer: Product processed prior to January 9, 2003, is not governed by the retained water rule.

38. Can export labels with labeling deviations be generically approved instead of sending the labeling applications to the Labeling and Consumer Protection Staff for sketch approval?

Answer: The generically approved label regulations do not provide for generic approval of labeling with deviations, which is why generic label approval is not acceptable. Labeling with deviations have to receive sketch approved from the Labeling, Consumer and Protection Staff until the generic labeling regulations are changed.

39. Are giblets that are inserted into the cavity of a basted turkey carcass subject to the retained water regulations?

Answer: No, the retained water statement for the giblets is not required on the labeling of the basted turkey because the giblets are packaged within a multi-ingredient product. Retained water statements are not mandatory on multi-ingredient product labeling since multi-ingredient product labeling is not affected by retained water.

40. The product is a single-ingredient whole duck with giblets but which may contain a packet of stuffing or sauce. Is a water retention statement required?

Answer: Yes, when a sauce or stuffing packet is indicated as “free” on the duck label, the duck with giblets would have to be labeled with a retained water statement if the carcass and/or giblets has absorbed any post evisceration water. In such a situation, the duck with giblets would still be regarded as a single-ingredient product since only the duck with giblets is sold. The labeling would have to include information regarding the packet, e.g., a product name qualifier “free sauce (stuffing) packet,” and an ingredients statement. On the other hand, when a sauce or stuffing packet is packaged with the duck and giblets, and not labeled as free, the product is a multi-ingredient product, and the retained water statement for the whole duck with giblets is not mandatory.

41. Can salt be added to a chiller for poultry carcasses and parts? If that is possible, is a retained water statement necessary?

Answer: Salt is a permitted additive in chill water for raw poultry products according to [9 CFR 424.21](#). When the amount of salt is 70 pounds or below in 10,000 gallons of water, the salt would not need to be labeled because it would be an incidental additive. A retained water statement would then be mandatory if the product absorbed the chiller solution. On the other hand, when salt is in amounts from above 70 pounds up to 700 pounds per 10,000 gallons of water, the water and salt would have to be declared since both substances are additives. A special labeling statement would be required, e.g., “Brine Chilled in Water and Salt” or “Chilled in Water and Salt.” When the pickup of the solution in the carcasses or parts is less than 0.5 percent, the product would not need a percentage declaration in the special labeling statement. In situations where the pickup of the solution is 0.5 percent or greater, the special labeling statement would include the percent of solution rounded to the nearest whole number, e.g., “Chilled in 1% Water and Salt.”

42. Do the antimicrobial solutions need to be declared on the label?

Answer: When approved antimicrobial agents are used in meat or poultry processing for the momentary reduction of microorganisms, and are determined by FSIS to be consistent with FDA's definition of an incidental additive ([21 CFR 101.100\(a\)\(3\)](#)), they do not require labeling. The treatment of meat or poultry with an approved antimicrobial agent in water should not result in the product retaining any water. Therefore, as long as an establishment can demonstrate that no water is absorbed during, prior, or subsequent to processing steps, such as chilling, a meat or poultry product's labeling would not need to bear a retained water statement.

Exemptions or Religious Dietary Product Labeling

43. Is meat or poultry with retained water that will be shipped for further processing exempt from bearing a retained water statement?

Answer: No, all raw, single-ingredient product with water retained as a result of post-evisceration processing used to meet a food safety standard must be properly labeled with a declaration showing the amount of retained water prior to shipment.

44. Are inspected kosher meat or poultry products exempt from the retained water rule?

Answer: No, kosher carcasses and parts are soaked and salted during a process called kashering. Any water absorbed as a result of the kashering process does not need to be declared as part of a retained water statement. However, any water above naturally occurring water that is absorbed during other prior or subsequent process steps, such as chilling, does need to be declared. Such products would bear the retained water statement if they absorbed water prior to kashering or after kashering. Although, kosher carcasses and parts are labeled as “soaked and salted,” they are not considered multi-ingredient products.

45. Is religious exempt poultry subject to the retained water rule?

Answer: No, labeling of poultry slaughtered under religious exemption does not bear the mark of inspection. Labeling of poultry that bears an inspection legend is subject to the retained water rule.

46. Is the retained water statement required on labeling of uninspected raw single-ingredient product, e.g., non-certified pet food?

Answer: No, the retained water statement is exempt from labeling of uninspected products.

Retail Service Counter

47. When retail service cases display unpackaged raw single-ingredient meat or poultry products, should the retained water in the product be declared?

Answer: Yes, the retained water statement is required adjacent to the product, e.g., case card, placard, or shelf tag, which would provide information about the product. The retained water statement is necessary because it is mandatory information that indicates an aspect of the product that is different from similarly processed products that absorb no water used for food safety purposes

48. Do packaged meat or poultry products with retained water sold from a retail service case displaying unpackaged product have to be marked with the retained water statement?

Answer: Yes, the package of the product would bear an accurate label that includes the retained water declaration.

49. When a retail store buys from multiple suppliers of meat or poultry with retained water and displays unpackaged product in a retail service cases, can they simply label the product with the declaration of the supplier claiming the greatest amount of retained water rather than label product with multiple declarations?

Answer: Yes, the labeling for meat or poultry with retained water from several sources bearing different retained water statements would be achieved by using the highest range statement from the multiple suppliers, e.g., "less than 6% retained water." A range statement with the highest value does indicate an assortment of various retained water statements were present on suppliers' products packaged together, e.g., "chicken legs may contain up to 5% retained water" or "beef liver not more than 4% absorbed water."

50. When transportation to retail and display for retail (i.e. placement on draining racks) cause the product to release purge and thus decreases the total amount of retained water, how can the retail service counter relay this information to consumers? Would the service counter have to do their own analysis based on their practices and label accordingly?

Answer: Labeling with the highest range retained water statement would be the easiest method available. However, if the service counter can document the amount of drainage, the product can be labeled with a reduced value in the retained water statement. Also, if the service counter can document that all the retained water has drained from the product, a retained water statement is unnecessary. The method used to determine the loss is the retailer's choice but the results should be reproducible and verifiable.

Retained Water – Sample Labels

FINEST KIND

CUT UP CHICKEN

READY FOR THE GRILL

Proudly Packed for 6 Star Chix
Chilltown, MN 56649





Keep Refrigerated or Frozen


WITH 3% RETAINED WATER

Young Turkey

Without Neck and Giblets

Keep Refrigerated









With up to 4% Retained Water

Safe Handling Instructions

This product is prepared from inspected and passed meat and/or poultry. Some food products may contain bacteria that could cause illness if the product is mishandled or cooked improperly. For your protection, follow these safe handling instructions.

-  Keep refrigerated or frozen. Thaw in refrigerator or microwave.
-  Keep raw meat and poultry separate from other foods. Wash working surfaces (including cutting boards), utensils, and hands after touching raw meat or poultry.
-  Cook thoroughly.
-  Keep hot foods hot. Refrigerate leftovers immediately or discard.



Company Name, City, State, Zip Code NET WT. ____ LBS.

Fresh Duckling

Less than 5% Absorbed Water including Neck and Giblets

Serving Suggestions:


Xis sile f...
O...
...
...
W...f...z...y!

Keep Refrigerated

Packed by Gourmet Duck Inc., City, State, Zip Code

NET WT ____ LBS.



Company Name, City, State, Zip Code

Beef Liver





Keep Frozen

NET WT. 6 LBS.

Contains 3% Retained Water

Safe Handling Instructions

This product is prepared from inspected and passed meat and/or poultry. Some food products may contain bacteria that could cause illness if the product is mishandled or cooked improperly. For your protection, follow these safe handling instructions.


-  Keep refrigerated or frozen. Thaw in refrigerator or microwave.
-  Keep raw meat and poultry separate from other foods. Wash working surfaces (including cutting boards), utensils, and hands after touching raw meat or poultry.
-  Cook thoroughly.
-  Keep hot foods hot. Refrigerate leftovers immediately or discard.

Up to 5% Water Added From Processing

Keep Refrigerated or Frozen

Lamb Tongues

Company Name, Dist., City, State, Zip Code



NET WT. 32 OZ (2 LBS.)

Product Examples

Product Examples from [FSIS Directive 6700.1, Amendment 1](#), 1/7/2003.

Example 1

Basted turkey injected with up to 3 percent flavor solution is made with turkey containing 3 percent absorbed water. The ingredient declaration would not identify any retained water in the turkey that would have possibly been absorbed during post evisceration processing in the slaughter establishment because the retained water is not an ingredient. The retained water in the turkey would not affect the 3 percent flavor solution injected into the product and declared as part of the product name.

Example 2

Beef and Turkey Italian Sausage contains starting material that is labeled as “turkey containing 3 percent retained water.” The ingredient declaration would not identify the retained water in the turkey because the retained water is not an ingredient. The post evisceration retained water in the turkey would not affect the 3 percent added water limit for the finished product that is established by the standard of identity or composition. Water added to facilitate mixing to dissolve ingredients is an ingredient and is permitted up to 3 percent in raw sausage.

Example 3

When beef trimmings that have been sprayed with chilled water so that they contain 5 percent retained water are used to make a single ingredient raw ground product, like ground beef or hamburger, the resulting product must be labeled to declare any retained water above naturally occurring water. Also, single-ingredient ground poultry produced from poultry containing retained water would be required to be labeled to declare any retained water above naturally occurring water. The retained water would not affect compliance with the standard, i.e., no added water, because retained water is not an ingredient. If the products were subsequently cooked, the retained water would have no effect on the finished product or its labeling.