

Confidential



Pty Ltd ABN 35 091 640 461



Page 1 of 4

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Balmain NSW 2041
AUSTRALIA

Phone: [REDACTED]
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6/01/01

[REDACTED]
Principal Food Technologist
ANZFA
PO Box 7816
Canberra MC ACT 2610
Australia.

Our Ref: 001031-VAPOREX-APPLICATION-TO-AMMEND-FSC-FOOD-ADDITIVES-
COVER-LETTER-TO-ANZFA-F-0106.doc

Dear [REDACTED]

Re: Vaporex Application.

This letter refers to our accompanying application version F-0106 for:

1. extension of use of hydrogen peroxide as a food processing aid to achieve the functionality of 'microorganism control agent'
2. extension of use of peracetic acid as a food processing aid to achieve the functionality of 'microorganism control agent'
- and
3. confirmation of the regulatory status of carbonic acid
4. Acetic acid - Confirmation of intention to include acetic acid in Standard 1.3.3 Clause 3; Generally Permitted Processing Aids in the joint Australia New Zealand Food Standards Code.



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1. Hydrogen peroxide:

To the best of Vaporex's knowledge hydrogen peroxide is necessary to ensure the effectiveness of the VAPOREX process for some foodstuffs.
Therefore a comprehensive response to the points required by ANZFA has been submitted.

[REDACTED]

2. Peracetic acid:

Vaporex is uncertain as to the necessity of peracetic acid in ensuring the effectiveness of the VAPOREX process for some foodstuffs.
Therefore a limited response to the points required by ANZFA has been made in order to establish a commencement date whilst Vaporex confirms the relevance of peracetic acid.

[REDACTED]

3. Carbonic acid: [REDACTED]

To the best of Vaporex's knowledge carbonic acid is necessary to ensure the effectiveness of the VAPOREX process for some foodstuffs.
It is the view of Vaporex and authoritative references that carbonic acid is an intrinsic component of carbon dioxide gas, which is generally permitted in all processed foods in schedule 2, INS No. 290, of the newly adopted combined Australia and New Zealand standard.

Carbonic acid is an intrinsic component of carbon dioxide gas due to:

- the small quantity of residual water in bulk, pressurised carbon dioxide gas [50ppm]
- mixing/exposure of carbon dioxide gas to higher humidity gases, moist foods and the equilibrated vapour pressure in the headspace of their packaging, typically occurring in modified atmosphere packaging,
- Merck index refers to carbon dioxide as carbonic acid gas due to the inherent presence of carbonic acid. Hence the term carbonic acid gas is frequently used as a description for carbon dioxide gas.

In consideration of the latter and the current approval in the newly adopted combined Australia and New Zealand standard for liquid carbonic acid for the function of bleaching [refer appendix 3.2], Vaporex requests that the following ruling be made:

Carbonic acid, contained in carbon dioxide gas for use as a microbial control agent does not require separate approval as it is already approved as carbon dioxide gas.

4. Acetic acid - Confirmation of intention to include acetic acid in Standard 1.3.3 Clause 3; Generally Permitted Processing Aids in the joint Australia New Zealand Food Standards Code.



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With reference to a phone conversation and review of the Food Standards Codes I had with your colleague, [REDACTED] on the morning of 3rd January 2001 re Acetic acid. The following was confirmed:

- Acetic acid is permitted in all foods in Standard A16; Table 1; Generally Permitted Processing Aids of the Australian Food Standards Code, which is legally enforceable, until repealed in approximately two years.
- Acetic acid is not permitted in all foods in Standard 1.3.3 Clause 3; Generally Permitted Processing Aids of the joint Australia New Zealand Food Standards Code.

Dean was of the opinion that this exclusion may be an error, as such Vaporex is seeking a ruling in this matter.

If acetic acid has been intentionally excluded from Standard 1.3.3 Clause 3, Vaporex will make an application to have Acetic acid permitted in all foods in Standard 1.3.3 Clause 3; Generally Permitted Processing Aids of the joint Australia New Zealand Food Standards Code.

Vaporex requests that ANZFA includes any such application with the current application referred to in this covering letter.

VAPOREX PTY LTD

[REDACTED]
ANDREW INGLIS
Director



Pty Ltd ABN 35 091 640 461

28D Montague Street
Balmain NSW 2041
AUSTRALIA

APPENDIX 3.2**STANDARD 1.3.3****14 Permitted processing aids with miscellaneous functions**

The processing aids listed in the Table to this clause may be used for the corresponding function specified in the Table, provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 14.

Substance	Function	Maximum permitted Level. (mg/kg)
Carbonic acid	Bleached tripe washing agent	GMP

Application to amend the Australian *Food Standards Code* —food additives.

Applicant:

VAPOREX PTY Limited

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- 2.1 Hydrogen Peroxide; pages 3 to 10 inclusive.
- 2.2 Peracetic Acid; pages 11 to 16 inclusive.
- 2.3 Statutory Declaration; page 17.

3. ATTACHMENTS.

- 3.1 ATTACHMENT 2.2.1 RAW DATA. 980703-CHICKEN-ROLL-MICRO.doc (4 pages)
- 3.2 ATTACHMENT 2.2.1 PROCESS SHEET B SERIES ONLY. 980703-CHICKEN-ROLL-DATA-F-980802.xls (1 page)
- 3.3 ATTACHMENT 2.2.1 RAW DATA. 980812-SANDWHICH-HAM-DATA-MICRO-FINAL.doc (4 pages)
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APPLICATION

Vaporex's responsibilities as specified by ANZFA in the following extract will be to answer parts 1,2,3,4 and 7 only:

'If you are applying to **introduce a new food additive** please address all criteria. If you are applying to **extend the use of a permitted food additive** complete only parts 1, 2, 3, 4 and 7'.

PART 1 GENERAL INFORMATION

1.1 Applicant

(a) VAPOREX Pty Limited

ABN: 35 091 640 461.

(b) Address (street and postal):

28D Montague St, Balmain, NSW, 2041.

(c) Contact Details:

Andrew Inglis

Director

[REDACTED]
[REDACTED]
[REDACTED]

(d) Nature of your business:

Technology company developing food sanitisation technologies for the food industry.

HYDROGEN PEROXIDE.

1.2 Nature of application:

(a) To develop a new standard which will extend the currently permitted uses of hydrogen peroxide as a Food Processing Aid to include the functionality of 'microorganism control agent' for ALL FOODS.

The applicant requests that this application for the extension of use of hydrogen peroxide be considered as a processing aid as it complies fully with the following ANZFA definition and will only be used at the lowest level necessary to achieve the function of 'micro-organism control agent'.

The applicant will be applying the processing aid as a gas but has no desire to link the application specifically with its method of application. However, there are sections in the application where reference to the method of application has been necessary to permit an appropriate response.

Background information to the process has been included with the covering letter in the form of fact sheets for 'general interest', however, it is not the intention of the applicant that this information should form part of the application.

ANZFA definition for a processing aid:

processing aid means a substance listed in clauses 3 to 18, where –

(a) the substance is used in the processing of raw materials, foods or ingredients, to fulfil a technological purpose relating to treatment or processing, but does not perform a technological function in the final food; and

(b) the substance is used in the course of manufacture of a food at the lowest level necessary to achieve a function in the processing of that food, irrespective of any maximum permitted level specified.

- ✂ (b) The application is made on sole behalf of the applicant.

PART 2 SPECIFIC INFORMATION

NB: The additive must meet the specifications set out in Standard A11- Specifications for identity and purity of food additives, food processing aids, vitamins, minerals and other added nutrients

2.1 Details of the additive:

(a) State the chemical and/or common name of the proposed additive:

The C.A. chemical name of the processing aid is:

HYDROGEN PEROXIDE

Synonyms in use: nil

Commonly known as: hydrogen peroxide

(b) State the specific type of food/s to which your application relates:

All Foods.

NOTE: The applicant does not have data for all foods and will not need to apply the processing aid to all foods in order to satisfy the applicant's technological requirements.

The request for all foods is justified on three grounds:

1] That the processing aid is already permitted for all foods in Clause 12 of the recently adopted combined Standard 1.3.3 - Processing Aids but not for the function of 'microorganism control agent'.

2] That the processing aid will not exceed the maximum permitted level specified in Clause 12 of the recently adopted combined Standard 1.3.3 - Processing Aids.

3] It is not known at this stage the total number of foods that will require hydrogen peroxide. Although this is not technical justification for the inclusion of all foods, however, when 1] and 2] above are considered the on-going applications for approval on a food by food basis is viewed by the applicant as a potential waste of resources for all parties concerned.

A request to include the functionality of 'microorganism control agent' in Clause 12 of the recently adopted combined Standard 1.3.3 - Processing Aids has not been made so as not to expand the functionality of the other substances specified in Clause 12 to include that of 'microorganism control agent'.

(c) State the proposed minimum and maximum levels of use for each use specified in section 2.1(b).

Food	Minimum level per cm ² of Food surface (mg/kg)	Maximum level per cm ² of Food surface (mg/kg)
All foods	0.5	100.0

The applicant will apply the processing aid to the surface only, which explains the change to the above table. For the applicant to achieve the technological function the concentrations as calculated on the entire mass of the food are irrelevant for its purposes.

Therefore the actual concentration when calculated on the entire mass of the food will be substantially smaller than those specified.

A value for the concentration calculated on the entire mass of the food would need to be performed on individual foods and is considered by the applicant to be irrelevant as long as the surface concentrations comply with the maximum permitted level.

These concentrations are determined to be for the peak concentration at the actual point in time of contact. Refer to 2.5 for the actual residuals.

2.2 Purpose and efficacy of the additive

Provide evidence that the additive will have the intended physical or other technical results when added to each food for which the application is made.

The purpose of the processing aid is that of a 'microorganism control agent' in order to achieve an increase in shelf life whilst maintaining or increasing the food safety of foods, as assessed by comparison against the identical food without the use of the processing aid.

Sufficient evidence has been attained to-date that the shelf life of foods can be increased. Refer attachments 2.2.1 and 2.2.2.

Chicken roll and Sandwich ham raw data and process sheet to identify treatments

Note: selected process parameters have been removed to protect Vaporex proprietary information, also the client identification has been removed.

BOC gases has given vaporex permission to use the test results presented in the raw data.

The processing aid has proven to achieve Bioburden reductions of 99.99998% (6 log) for Standard Plate Count over the shelf life of processed foods requiring very short process times and/or cold processing and/or are deleteriously effected by other additives.

Refer attachment 2.2.1, sandwich ham process sheet; comments bottom of columns for A4&B4 and A5&B5, and 2.2.2 sandwich ham process sheet and client flavour comments [A5 is acetic acid, all others have hydrogen peroxide included at various levels].

These results compare a typical commercially produced sliced meat with the identical food treated with the inclusion of hydrogen peroxide at the end of and past their specified shelf life.

Note: selected process parameters have been removed to protect Vaporex proprietary information, also the client identification has been removed.

Raw agricultural products such as peaches and melons have exhibited substantial extensions in shelf life assessed on the basis of observable mould growth.

Refer attachment 2.2.3 'Deleterious effects on peaches when treated with acetic acid'.

Note: selected process parameters have been removed to protect Vaporex proprietary information, also the client identification has been removed.

The above results have been attained in material, which has been stored under normally accepted storage conditions.

Insufficient direct evidence has been attained that:

- the processing aid can achieve sufficient reductions of pathogenic organisms of concern to specific foods to achieve an increase in food safety
- a specific environment that would favour these pathogenic organisms has not been created.

2.3 Justification for use of the additive

Provide evidence as to whether or not the same objectives can be obtained, for each food specified, by good manufacturing practice (GMP) or by additives currently approved by the Australian Food Standards Code.

2.3.1] The applicant has attempted to find a recognised industry microbial standard for products referred to in attachment 2.2.1 by searching the library at CSIRO Division of Food Science N.RYDE and referring the search to a respected researcher of the same.

Refer attachment 2.3.1; **Vacuum packaging**, Figure 10-10 for the closest reference that could be found.

The applicant assures ANZFA that the shelf life specified for these commercially sliced meats is that of a large, national, commercial manufacturer and appear to be typical for these products and therefore produced under GMP for the date specified on the test report.

2.3.2] Acetic acid was applied in a similar manner as the hydrogen peroxide and was found to be self limiting by virtue of its undesirable flavour contribution to the food.

Refer 2.2.

2.3.3] Hydrogen peroxide proved to be an essential processing aid to achieve a substantial reduction in bio-burden without causing a change in the foods flavour profile.

Refer 2.2.

Additionally a substantial reduction in the process temperature was achieved, which can be extrapolated into a very short process time mandatory for high speed slicing lines and food production in general. Acetic acid alone was unable to achieve this result.

CONCLUSIONS:

- The results achieved by the addition of the hydrogen peroxide processing aid are a minimum of 5 logs better than the normal industry performance standards that have been achieved by the application of best known approved additives, their respective approved levels and GMP, as represented in the investigations referred to in this document.
- From a review of the data in 2.3.2 and 2.3.3 the results obtained by the similar application methodology of acetic acid and hydrogen peroxide, the addition of hydrogen peroxide performed a technical function that acetic acid alone could not.

Therefore the use of the processing aid is justified as a *review of additives including those in Schedule 1 of Standard 1.3.1, has concluded that they cannot offer the same technological functions.

*Review based on the criteria that the additive must firstly be a volatile substance and secondly not contribute to the flavour of the treated food.

2.4 Establish need for the additive

Provide evidence, such as requests from manufacturers of each specified type of food setting out the purpose to be served by the proposed additive and establishing a need for it.

2.3 has established the difference between food processed with and without the additive. In the current 'food safety climate' the need for interventionary processes to increase shelf life without decreasing microbial safety or with an increase in food safety is obvious.

The applicant is currently working confidentially with several major food manufacturers and will make submissions at a later date re the need for the processing aid, in conjunction with various food processors and distributors.

2.5 Nutritional implications of use of the proposed additive

Provide evidence of, or describe any positive or negative effects using the additive may have on the nutritional status of Australians and New Zealanders, for example, modification of absorption of an essential nutrient.

Nutritional implications of use of the proposed processing aid have been previously reviewed by ANZFA or equivalent bodies and concluded to be acceptable based on the following three facts:

2.5.1 CURRENT PERMITTED USES.

A] Standard A16, clause 14, table 3 of the 'old food standards code'. This code is valid for the next two years.

TABLE III - PROCESSING AIDS WITH MISCELLANEOUS FUNCTIONS.

Column 1 Substance	Column 2 Function	Column 3 Maximum permitted residue (mg/kg)
Hydrogen peroxide	Micro-organism control agent for dried vine fruits, fruit and vegetable juices, sugar, vinegar and yeast autolysate	5
	Removal of glucose from egg products	5
	Removal of sulphur dioxide	5

B] Clause 11 of the recently adopted combined Standard 1.3.3 - Processing Aids.

Permitted processing aids used in packaged water and in water used as an ingredient in other foods.
The processing aids listed in the Table to this clause may be used in the course of manufacture of packaged water and in water used as an ingredient in other foods provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 11.

Substance	Maximum permitted level (mg/kg)
Hydrogen peroxide	5

C] Clause 12 of the recently adopted combined Standard 1.3.3 - Processing Aids

Permitted bleaching agents, washing and peeling agents

The processing aids listed in the Table to this clause may be used as bleaching agents, washing and peeling agents in the course of manufacture of the corresponding foods specified in the Table provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 12.

Substance	Food	Maximum permitted level (mg/kg)
Hydrogen peroxide	All foods	5

2.5.2] Residual levels of the processing aid analysed to-date have been below the detection limit of 0.5 mg/kg.

Refer attachment 2.5.2.

Therefore the processing aid as applied is well within the current maximum permitted levels.

2.5.3] For the applicant to achieve the technological function the processing aid will be applied to the surface only, therefore the concentrations as specified, when calculated on the entire mass will be substantially smaller than all current permissions.

A value for the concentration calculated on the entire mass of the food would need to be performed on individual foods and is impractical considering the actual surface residuals referred to in 2.5 are below the detection limit of 0.5mg/kg. Homogenisation of samples for analysis to determine any nutritional implications would dilute the hydrogen peroxide and expose any residuals to additional 'clean' mass, which would represent a far greater mass to promote the breakdown of hydrogen peroxide than what was present at the first point of contact. Therefore the applicant assumes that no residuals of the processing aid are present and therefore can not effect the nutritional state of the food as consumed.

2.6 Dietary implications of intake of the additive

How will your application affect Australian and New Zealand diets? From the proposed usage, detail the probable limits of dietary intake of the additive in the diets of both adults and children.

Normally, consumption of relevant food/s at the 95 percentile limits (as detailed in the National Dietary Survey of Adults¹ or the National Dietary Survey of Schoolchildren²) will be accepted as a source for determining the probable limit of daily intake of the additive.

You should give special regard to vulnerable groups with special diets (for example, infants, the immunocompromised and the elderly) and differences in consumption patterns within the community.

Dietary implications of use of the proposed processing aid are nil based on the arguments in 2.5.

2.7 Advantage to the consumer of the additive

Describe any advantages or benefits consumers may enjoy from use of the proposed additive. Indicate any anticipated consumer support for, or opposition to, use of the additive.

The achievement of all the technological aims will result in safer, longer shelf life products being available to the consumer at minimum cost.

It is anticipated that informed consumers will view the advantages of increased shelf life and food safety as far outweighing any desire to oppose this application for extension of use which has been previously reviewed by ANZFA or equivalent bodies and concluded to be acceptable based on the existing approvals as detailed in 2.5.

Additionally the residual levels of the processing aid analysed to-date have been below the detection limit of 0.5 mg/kg as referenced in 2.5.

(Additionally when the consumer realises that the only current alternative to the use of this processing aid for many foods is irradiation, any remaining objections should be cast aside.

PART 3 REGULATORY/LEGISLATIVE IMPLICATIONS

3.1 Codex standards

If you are aware that the proposed new standard or variation to a standard either differs from a Codex Alimentarius Commission standard, or a Codex standard exists, please provide this information.

The applicant is not aware that the proposed new standard either differs from a Codex Alimentarius Commission standard, or that a Codex standard exists.

3.2 International legislation

Indicate the status of other national (eg. US, Canada, Japan) or international (eg. EU) regulation/s, which may be relevant to the proposed use of the additive. State, to the best of your knowledge, whether approval has been rejected or withdrawn by any regulatory body.

The following approvals have been found in the United States of America where hydrogen peroxide has GRAS status.

Refer attachment: 3.2.1 USFDA GRAS Status & approval.

This application has not been submitted to any other regulatory body.

To the best of our knowledge, a similar approval has not been rejected or withdrawn by any regulatory body.

3.3 Regulatory Impact Statement

It is now mandatory for the Authority to prepare a Regulatory Impact Statement (RIS) when considering a proposed variation to the Australian Food Standards Code. The aim of a RIS is to identify and assess any social, economic and/or environmental impacts of an application or proposal to vary the Australian Food Standards Code. Please identify the economic implications associated with your application. Relevant quantitative and qualitative information the Authority needs could include:

- *cost implications:* cost of application and cost of the processing aid by the food processor / distributor varies between 1 and 5 cents per kilogram of the final food.

- *profit implications:* Overall effect on profit is as yet unknown as the savings in the following areas are feasible:

- MAP: up to 50% of the direct cost of MAP consumables can be saved
- Production line speeds associated with MAP can be dramatically increased.
- Production scale of economies should be achieved by the extension of production runs as a result of extended shelf life.
- A reduction in wastage from spoiled product should be achieved

- *market share implications:* Food processors / distributors who apply the processing aid should improve their market share as consumer confidence in their products increases.

- *price implications:* a function of profit therefore unknown.

- *trade implications:* Australian companies would be the first to benefit from the application of the processing aid, thus export of commodity products such as raw meat and vegetable produce to Asia and NZ should increase. A certain amount of Australian IP is involved which should see a return into Australia from overseas royalty payments.

- *employment implications:* Increased food safety will increase the job security of people employed in the processing / distribution of the relevant foods. Vaporex plans to employ technical sales support staff to commercialise the application of the processing aid which also requires dedicated engineering thus a flow on effect with regard to employment should occur.

PART 4 ANALYTICAL PROCEDURES

4.1 Analytical method for additive:

State the analytical methods to determine the amount of the additive in the food or foods to which the application relates.

Presence of the processing aid can be specifically detected by the use of Iodometric Method and test strip method used for the creation of attachment 2.5.2.

Refer attachments: 4.1.1 Iodometric Method and 4.1.2 Test Strip Method.

4.2 Analytical method for by-products

State the analytical methods used to determine any known, or reasonably expected, substance formed in, or on, the food as a result of the use of the proposed additive.

The methods should be both accurate and specific.

'Specific' means that the additive (and any substance referred to in 4.2) can be differentiated from all other substances (including substances that can be used in place of the additive) or constituents that are present in the food containing the additive.

The methods must be presented in such a way that they can be applied directly, with consistent results, by trained personnel and should, where possible, be such that they can be used for regulatory food control.

Breakdown products of hydrogen peroxide are water and oxygen, which are considered of no regulatory importance and therefore the relevant methods are not documented.

Oxidative by-products may be formed, however no studies have been performed due to the existing approvals referenced in 2.5 and 3.2 for Australia and USA. Additionally sensory trials have been performed collaboratively with industry partners, which concluded that objectionable flavours and odours were only detectable in the control food that had not been treated with hydrogen peroxide.

Classical methods for free fatty acids and peroxide value are attached.

NOTE:

- Peroxide value: this test must be carried out after the added peroxide has completely reacted and the final result should be calculated less the value determined from an untreated control.
- Acid value: this is a general test method and may need slight modification for individual foods.

Refer attachment: 4.2. for free fatty acids and peroxide value.

PERACETIC ACID.

1.2 Nature of application:

(a) To develop a new standard which will extend the currently permitted uses of Peracetic acid as a Food Processing Aid to include the functionality of 'microorganism control agent' for ALL FOODS.

The applicant requests that this application for the extension of use of Peracetic acid be considered as a processing aid as it complies fully with the following ANZFA definition and will only be used at the lowest level necessary to achieve the function of 'micro-organism control agent'.

The applicant will be applying the processing aid as a gas but has no desire to link the application specifically with its method of application. However, there are sections in the application where reference to the method of application has been necessary to permit an appropriate response.

ANZFA definition for a processing aid:

processing aid means a substance listed in clauses 3 to 18, where –

(a) the substance is used in the processing of raw materials, foods or ingredients, to fulfil a technological purpose relating to treatment or processing, but does not perform a technological function in the final food;

and

(b) the substance is used in the course of manufacture of a food at the lowest level necessary to achieve a function in the processing of that food, irrespective of any maximum permitted level specified.

(b) The application is made on sole behalf of the applicant.

PART 2 SPECIFIC INFORMATION

NB: The additive must meet the specifications set out in Standard A11- Specifications for identity and purity of food additives, food processing aids, vitamins, minerals and other added nutrients

2.1 Details of the additive:

(a) State the chemical and/or common name of the proposed additive:

The C.A. chemical name of the processing aid is:

PERACETIC ACID

Synonyms in use: nil

Commonly known as: Peracetic acid

(b) State the specific type of food/s to which your application relates:

All Foods.

NOTE: The applicant does not have data for any foods and will not need to apply the processing aid to all foods in order to satisfy the applicant's technological requirements.

The request for all foods is justified on three grounds:

1] The processing aid is already permitted for all foods in Clause 5 and Clause 12 of the recently adopted combined Standard 1.3.3 - Processing Aids but not for the function of 'microorganism control agent'.

2] The processing aid will be used under GMP as specified in Clause 12 of the recently adopted combined Standard 1.3.3 - Processing Aids.

3] It is not known at this stage the total number of foods that will require Peracetic acid. Although this is not technical justification for the inclusion of all foods, however, when 1] and 2] above are considered the on-going applications for approval on a food by food basis is viewed by the applicant as a potential waste of resources for all parties concerned.

A request to include the functionality of 'microorganism control agent' in Clause 12 of the recently adopted combined Standard 1.3.3 - Processing Aids has not been made so as not to expand the functionality of the other substances specified in Clause 12 to include that of 'microorganism control agent'.

(c) State the proposed minimum and maximum levels of use for each use specified in section 2.1(b).

Food	Minimum level per cm ² of Food surface (mg/kg)	Maximum level per cm ² of Food surface (mg/kg)
All foods	0.5	100.0

The applicant will apply the processing aid to the surface only, which explains the change to the above table. For the applicant to achieve the technological function the concentrations as calculated on the entire mass of the food are irrelevant for its purposes.

Therefore the actual concentration when calculated on the entire mass of the food will be substantially smaller than those specified.

These concentrations are determined to be for the peak concentration at the actual point in time of contact.

A value for the concentration calculated on the entire mass of the food would need to be performed on individual foods and is considered by the applicant to be irrelevant as long as the surface concentrations are a result of GMP.

2.2 Purpose and efficacy of the additive

Provide evidence that the additive will have the intended physical or other technical results when added to each food for which the application is made.

The purpose of the processing aid is that of a 'microorganism control agent' in order to achieve an increase in shelf life whilst maintaining or increasing the food safety of foods, as assessed by comparison against the identical food without the use of the processing aid.

No direct evidence has been attained that:

- the processing aid can achieve sufficient reductions of pathogenic organisms of concern to specific foods to achieve an increase in food safety
- a specific environment that would favour these pathogenic organisms has not been created.

Please refer to the covering letter attached.

2.3 Justification for use of the additive

Provide evidence as to whether or not the same objectives can be obtained, for each food specified, by good manufacturing practice (GMP) or by additives currently approved by the Australian Food Standards Code.

Justification for use of the additive has not been established, please refer to the covering letter attached.

2.4 Establish need for the additive

Provide evidence, such as requests from manufacturers of each specified type of food setting out the purpose to be served by the proposed additive and establishing a need for it.

The applicant is currently working confidentially with several major food manufacturers and will make submissions at a later date re the need for the processing aid, in conjunction with various food processors and distributors.

2.5 Nutritional implications of use of the proposed additive

Provide evidence of, or describe any positive or negative effects using the additive may have on the nutritional status of Australians and New Zealanders, for example, modification of absorption of an essential nutrient.

Nutritional implications of use of the proposed processing aid have been previously reviewed by ANZFA or equivalent bodies and concluded to be acceptable based on the following three facts:

2.5.1 CURRENT PERMITTED USES.

A) Standard A16, table II - 'processing aids restricted by function and residue level' Group II and Group III of the 'old food standards code'. This code is valid for the next two years.

Group II - Bleaching Agents, Washing And Peeling Agents

Column 1 Substance	Column 2 Maximum permitted residue (mg/kg)
Peracetic acid	NS

Group III - Catalysts

Column 1 Substance	Column 2 Maximum permitted residue (mg/kg)
Peracetic acid	0.7

B] Clause 5 of the recently adopted combined Standard 1.3.3 - Processing Aids.

Clause 5 Permitted catalysts

The processing aids listed in the Table to this clause may be used as a catalyst in the course of manufacture of any food provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 5.

Substance	Maximum permitted Level. (mg/kg)
Peracetic acid	0.7

C] Clause 12 of the recently adopted combined Standard 1.3.3 - Processing Aids

Permitted bleaching agents, washing and peeling agents

The processing aids listed in the Table to this clause may be used as bleaching agents, washing and peeling agents in the course of manufacture of the corresponding foods specified in the Table provided the final food contains no more than the corresponding maximum permitted level specified in the Table.

Table to clause 12.

Substance	Food	Maximum permitted level (mg/kg)
Peracetic acid	All foods	GMP

2.6 Dietary implications of intake of the additive

How will your application affect Australian and New Zealand diets? From the proposed usage, detail the probable limits of dietary intake of the additive in the diets of both adults and children.

Normally, consumption of relevant food/s at the 95 percentile limits (as detailed in the National Dietary Survey of Adults¹ or the National Dietary Survey of Schoolchildren²) will be accepted as a source for determining the probable limit of daily intake of the additive.

You should give special regard to vulnerable groups with special diets (for example, infants, the immunocompromised and the elderly) and differences in consumption patterns within the community.

Dietary implications of intake of the additive has not been determined, please refer to the covering letter attached.

2.7 Advantage to the consumer of the additive

Describe any advantages or benefits consumers may enjoy from use of the proposed additive. Indicate any anticipated consumer support for, or opposition to, use of the additive.

Advantage to the consumer of the additive has not been determined, please refer to the covering letter attached.

PART 3 REGULATORY/LEGISLATIVE IMPLICATIONS

3.1 Codex standards

If you are aware that the proposed new standard or variation to a standard either differs from a Codex Alimentarius Commission standard, or a Codex standard exists, please provide this information.

The applicant is not aware that the proposed new standard either differs from a Codex Alimentarius Commission standard, or that a Codex standard exists.

3.2 International legislation

Indicate the status of other national (eg. US, Canada, Japan) or international (eg. EU) regulation/s, which may be relevant to the proposed use of the additive. State, to the best of your knowledge, whether approval has been rejected or withdrawn by any regulatory body.

The following approvals have been found in the United States of America.

Refer attachment: P3.2.1. and P3.2.2.

This application has not been submitted to any other regulatory body.

To the best of our knowledge, a similar approval has not been rejected or withdrawn by any regulatory body.

3.3 Regulatory Impact Statement

It is now mandatory for the Authority to prepare a Regulatory Impact Statement (RIS) when considering a proposed variation to the Australian Food Standards Code. The aim of a RIS is to identify and assess any social, economic and/or environmental impacts of an application or proposal to vary the Australian Food Standards Code. Please identify the economic implications associated with your application. Relevant quantitative and qualitative information the Authority needs could include:

- *cost implications:* have not been analysed, please refer to the covering letter attached.
- *profit implications:* have not been analysed, please refer to the covering letter attached.
- *market share implications:* have not been analysed, please refer to the covering letter attached.
- *price implications:* have not been analysed, please refer to the covering letter attached.
- *trade implications:* have not been analysed, please refer to the covering letter attached.
- *employment implications:* have not been analysed, please refer to the covering letter attached.

PART 4 ANALYTICAL PROCEDURES

4.1 Analytical method for additive:

State the analytical methods to determine the amount of the additive in the food or foods to which the application relates.

Presence of the processing aid can be specifically detected by the use of a test strip kit method.

Refer attachments: 4.1.1 Test Strip Method.

4.2 Analytical method for by-products

State the analytical methods used to determine any known, or reasonably expected, substance formed in, or on, the food as a result of the use of the proposed additive.

The methods should be both accurate and specific.

'Specific' means that the additive (and any substance referred to in 4.2) can be differentiated from all other substances (including substances that can be used in place of the additive) or constituents that are present in the food containing the additive.

The methods must be presented in such a way that they can be applied directly, with consistent results, by trained personnel and should, where possible, be such that they can be used for regulatory food control.

Breakdown products of Peracetic acid are:

- water and oxygen, which are considered of no regulatory importance and therefore the relevant methods are not documented.
- Acetic acid. Refer attachment P4.2.

Oxidative by-products may be formed, however no studies have been performed due to the existing approvals referenced in 2.5.1 and 3.2 for Australia and USA.

Classical methods for free fatty acids and peroxide value are attached.

NOTE:

- Peroxide value: this test must be carried out after the added peroxide has completely reacted and the final result should be calculated less the value of determined from an untreated control.
- Acid value: this is a general test method and may need slight modification for individual foods.

Refer attachment: 4.2. for free fatty acids and peroxide value.

PART 7 STATUTORY DECLARATION — AUSTRALIA

The information you provided in Parts 1 to 6 must be attested to by a statutory declaration in some suitable form along the following lines:

I, ANDREW STERLING JONES declare that the information provided in this application fully sets out the matters required and that the same are true to the best of my knowledge and belief and that no information has been withheld which might prejudice this application.

Signature

9801183
17 Susella Cres
North Richmond 2754

Declared before me

this 9th day of JANUARY 2001

* A Chief, Police, Resident or Special Magistrate; Stipendiary Magistrate or any Magistrate in respect of whose office an annual salary is payable; a Justice of the Peace; a person authorised under any law in force in Australia or its Territories to take affidavits; a person appointed under the *Statutory Declarations Act 1959* to be a Commissioner for Declarations; a person appointed as a Commissioner for Declarations under the *Statutory Declarations Act 1911* and holding office immediately before the commencement of the *Statutory Declarations Act 1959*; a Notary Public; a person before whom a statutory declaration may be made under the law of the State in which a declaration is made; or a person appointed to hold, or act in, the office in a country or place outside Australia of Australian Consul-General, Consul, Vice-Consul, Trade Commissioner, Consular Agent, Ambassador, High Commissioner, Minister, Head of Mission, Commissioner, Charge d'Affaires, or Consellor, Secretary of Attache at an Embassy, High Commissioner's office, Legation or other post.

10/00 '98 09:40 FAX 97426190

MICROTECH NSW

12/03



SYDNEY • MELBOURNE

ATTENTION:

BOC GASES
799 Pacific Highway
CHATSWOOD NSW 2057

cc:

FAXED

SAMPLE: Chicken Roll Slice @ Day 11 and Stored @ 4°C - as received
Received on 3 July 1998 @ 2.00 pm
Testing commenced on 14 July 1998

Shelf Life Verification		
Sample Details	Lab Ref No	Total Viable Aerobic Count
		M2.1 cfu/g
980703; Order No: 00014		
Control 1	14731BG	10 (est)
Control 2	14732BG	2.2 x 10 ⁵
Control 3	14733BG	1.1 x 10 ⁵
Control 4	14734BG	3.3 x 10 ⁵
Control 5	14735BG	1.2 x 10 ⁵
A1 11 Day	14736BG	2.4 x 10 ⁴
A1 11 Day	14737BG	Less than 10
A1 11 Day	14738BG	1.1 x 10 ⁵
A2 11 Day	14739BG	10 (est)
A2 11 Day	14740BG	Less than 10
A2 11 Day	14741BG	120 (est)
A3 11 Day	14742BG	30 (est)
A3 11 Day	14743BG	Less than 10
A3 11 Day	14744BG	Less than 10

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Phone (02) 9742 6122 Fax (02) 9742 6190
<http://www.microtechlab.com>

MELBOURNE OFFICE: Phone (03) 9877 8222 Fax (03) 9877 8444
Page 1 of 2 Lab Ref No: 14731BG - 14753BG

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

10/09 '98 09:40 FAX 97426190

MICROTECH NSW

04



SYDNEY • MELBOURNE

BOC Gases

Shelf Life Verification

Sample Details	Lab Ref No	Total Viable Aerobic Count M2.1 cfu/g
980703; Order No: 00015		
B1 11 Day	14745BG	10 (est)
B1 11 Day	14746BG	10 (est)
B1 11 Day	14747BG	10 (est)
B2 11 Day	14748BG	Less than 10
B2 11 Day	14749BG	Less than 10
B2 11 Day	14750BG	Less than 10
B3 11 Day	14751BG	Less than 10
B3 11 Day	14752BG	Less than 10
B3 11 Day	14753BG	Less than 10

The data pertains solely to the analytical and sampling procedure(s) used and the conditions and homogeneity of the sample(s) as received. The data therefore may not be representative of the lot or batch or other samples. Consequently the data may not necessarily justify the acceptance or rejection of a lot or batch, a product recall or suspend legal processing. This report does not imply that Microtech has been engaged to assist upon the completion of the analysis and for any action that should be taken as a result of the analysis.

Date: 20.7.98

MASM, AAIFST

Consultant Microbiologist

Certificate No: 47742

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SECOND CERTIFICATE

ATTENTION [REDACTED]
BOC GASES
799 Pacific Highway
CHATSWOOD NSW 2057

cc [REDACTED]

SAMPLE: Shelf Life Verification Study - as received
Sample: Chicken Roll Slice 980703 @ Day 4 (7.7.98) and stored at 4°C
Received on 3 July 1998 @ 2.00 pm
Testing commenced on 7 July 1998

Order No: 00013/00014

Sample Details	Lab Ref No	Total Viable Aerobic Count	
		M2.1	cfu/g
Control 1	14708BG	7.9 x 10 ⁴	
Control 2	14709BG	5.7 x 10 ³	
Control 3	14710BG	Less than 10	
Control 4	14711BG	130 (est)	
Control 5	14712BG	Less than 10	
A1 - 4 Day	14713BG	Less than 10	
A1 - 4 Day	14714BG	Less than 10	
A1 - 4 Day	14715BG	780	
A2 - 4 Day	14716BG	10 (est)	
A2 - 4 Day	14717BG	30 (est)	
A2 - 4 Day	14718BG	10 (est)	
A3 - 4 Day	14719BG	10 (est)	
A3 - 4 Day	14720BG	Less than 10	
A3 - 4 Day	14721BG	Less than 10	
B1 - 4 Day	14722BG	Less than 10	
B1 - 4 Day	14723BG	230 (est)	
B1 - 4 Day	14724BG	10 (est)	

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Page 1 of 2 - Lab Ref No: 14708BG-14730BG

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10/09 '98 09:40 FAX 97426190

MICROTECH NSW

10/09



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BOC Gases

Sample Details	Lab Ref No	Total Viable Aerobic Count	
		M2.1	cfu/g
B2 - 4 Day	14725BG	10 (est)	
B2 - 4 Day	14726BG	Less than 10	
B2 - 4 Day	14727BG	Less than 10	
B3 - 4 Day	14728BG	Greater than 2.5×10^7	
B3 - 4 Day	14729BG	10 (est)	
B3 - 4 Day	14730BG	Less than 10	

The data pertains solely to the analytical and sampling procedure(s) used and the condition and homogeneity of the sample(s) as received. The data therefore may not be representative of the lot or batch or other samples. Consequently the data may not necessarily justify the suspension or rejection of a lot or batch, a product recall or subsequent processing. This report does not imply that Microtech has been engaged to conduct upon the responsibility of the analysis and for any action that should be taken as a result of the analysis.

Date: 14.07.98

MASM, AAIFST

Consultant Microbiologist

Certificate No: 47602

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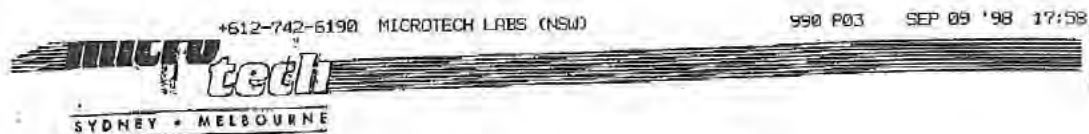
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TEMPERATURE
H202=



ATTENTION:

BOC GASES
799 Pacific Highway
CHATSWOOD NSW 2057

SAMPLE: Shelf Life Verification Study of Ham Slices - as received
Samples received @ 4.00 pm on 13 August 1998 and stored @ 4°C.
Samples were tested at Day 16 on 28 August 1998

Sample Details	Lab Ref No	Total Viable Aerobic Count	
		M2.1	cfa/g
980812-B-SL-1; Control	17794BG	400 (est)	
980812-B-SL-2; Control	17795BG	1.2 x 10 ⁶	
980812-B-SL-3; Control	17796BG	100 (est)	
980812-B-SL-4; Control	17797BG	7.0 x 10 ⁵	
980812-B-SL-5; Control	17798BG	5.9 x 10 ³	
980812-A1-1	17799BG	Less than 10	
980812-A1-2	17800BG	Less than 10	
980812-A1-3	17801BG	Less than 10	
980812-B-1-1	17802BG	Less than 10	
980812-B1-2	17803BG	Less than 10	
980812-B1-3	17804BG	10 (est)	
980812-A2-1	17805BG	30 (est)	
980812-A2-2	17806BG	Less than 10	
980812-A2-3	17807BG	Less than 10	
980812-B2-1	17808BG	Less than 10	
980812-B2-2	17809BG	60 (est)	
980812-B2-3	17810BG	10 (est)	
980812-A3-1	17811BG	Less than 10	
980812-A3-2	17812BG	Less than 10	

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Page 1 of 2 - Lab Ref No: 17794BG-17828BG

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990 P04 SEP 09 '98 17:59



BOC Gases

Shelf Life Verification Study of Ham Slices

Sample Details	Lab Ref No	Total Viable Aerobic Count	
		M2.1	cfu/g
980812-A3-3	17813BG	Less than 10	
980812-B3-1	17814BG	Less than 10	
980812-B3-2	17815BG	Less than 10	
980812-B3-3	17816BG	Less than 10	
980812-A4-1	17817BG	Less than 10	
980812-A4-2	17818BG	Less than 10	
980812-A4-3	17819BG	Less than 10	
980812-B4-1	17820BG	40 (est)	
980812-B4-2	17821BG	Less than 10	
980812-B4-3	17822BG	Less than 10	
980812-A5-1	17823BG	40 (est)	
980812-A5-2	17824BG	Less than 10	
980812-A5-3	17825BG	Less than 10	
980812-B5-1	17826BG	Less than 10	
980812-B5-2	17827BG	Less than 10	
980812-B5-3	17828BG	10 (est)	

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Date: 31.08.98

MASM, AAIFST

Consultant Microbiologist

Certificate No: 48765

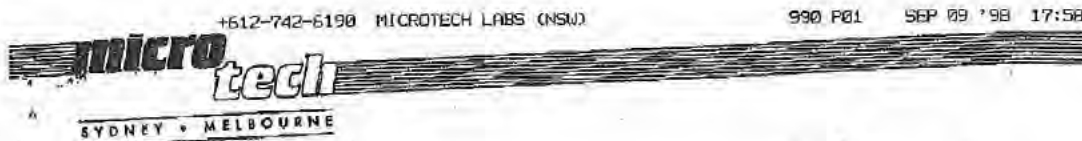


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Page 2 of 2 - Lab Ref No: 17794BG-17828BG

MICROBIOLOGICAL & CHEMICAL CONSULTANTS



ATTENTION

ROC GASES
799 Pacific Highway
CHATSWOOD NSW 2057

SAMPLE: Shelf Life Verification Study of Ham Slices - as received
Samples received @ 4.00 pm on 13 August 1998 and stored @ 4°C.
Samples were tested at Day 12 on 4 September 1998

Order No: 00020

Sample Details	Lab Ref No	Total Viable Aerobic Count	
		M2.1	cfu/g
980812B-SL+7-1 Control	17829BG		2.6×10^4
980812-B-SL+7-2 Control	17830BG		3.4×10^6
980812-B-SL+7-3 Control	17831BG		2.7×10^6
980812-B-SL+7-4 Control	17832BG		7.0×10^3
980812-B-SL+7-5 Control	17833BG		2.8×10^3
980812-A1-1	17834BG		20 (est)
980812-A1-2	17835BG		Less than 10
980812-A1-3	17836BG		20 (est)
980812-B1-1	17837BG		10 (est)
980812-B1-2	17838BG		Less than 10
980812-B1-3	17839BG		10 (est)
980812-A2-1	17840BG		10 (est)
980812-A2-2	17841BG		Less than 10
980812-A2-3	17842BG		Less than 10
980812-B2-1	17843BG		Less than 10
980812-B2-2	17844BG		10 (est)
980812-B2-3	17845BG		10 (est)
980812-A3-1	17846BG		10 (est)
980812-A3-2	17847BG		Less than 10
980812-A3-3	17848BG		Less than 10
980812-B3-1	17849BG		Less than 10
980812-B3-2	17850BG		Less than 10

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Page 1 of 2 - Lab Ref No: 17829BG-17863BG

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990 P02 SEP 09 '98 17:58



BOC Gases

Sample Details	Lab Ref No	Total Viable Aerobic Count M2.1 cfu/g
980812-B3-3	17851BG	Less than 10
980812-A4-1	17852BG	10 (est)
980812-A4-2	17853BG	Less than 10
980812-A4-3	17854BG	Less than 10
980812-B4-1	17855BG	Less than 10
980812-B4-2	17856BG	10 (est)
980812-B4-3	17857BG	40 (est)
980812-A5-1	17858BG	Less than 10
980812-A5-2	17859BG	30 (est)
980812-A5-3	17860BG	20 (est)
980812-B5-1	17861BG	Less than 10
980812-B5-2	17862BG	Less than 10
980812-B5-3	17863BG	10 (est)

The data remains solely to the analytical and sampling procedure(s) used and the condition and homogeneity of the sample(s) as received. The data therefore may not be representative of the lot or batch or other samples. Consequently the data may not necessarily justify the acceptance or rejection of a lot or batch, a product recall or support legal proceedings. This report does not imply that Microtech has been engaged to consult upon the consequences of the analysis and for any action that should be taken as a result of the analysis.

Date: 07.09.98

MASM, AAIFST

Consultant Microbiologist

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Certificate No: 48869



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MICROBIOLOGICAL & CHEMICAL CONSULTANTS

1. *Journal of the American Medical Association*, 277, 1996, 1033-1038.



MELBOURNE • SYDNEY

FAX

TO:

ATTENTION:

Phone

Fax Phone

SUBJECT

Date / /199

Number of pages including cover sheet 2/2

FROM:

MICROTECH
LABORATORIES

Phone 03 9877 8222

Fax Phone 03 9877 8444

REMARKS: ☐ Urgent ☐ For your review ☐ Reply ASAP ☐ Please Comment

	Titration Accuracy	Water Activity
Q/N 00025		
20236 BC 980812 Horn Control	0.28% (as expected)	0.950
20237 BC 980812 Horn A2	0.33%	"
20238 BC 980812 Horn A3	0.40%	"
20239 BC 980812 Horn A4	0.40%	"
20240 BC 980812 Horn A5	0.42%	"
20241 BC 980812 Horn B4	0.34%	"
20242 BC 980812 Horn C1-90	0.24%	"

This document is preliminary only. It is supplied for convenience of and at the instruction of the client. It is not a final report. The final report is the definitive report.

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18-20 King Street, Blackburn, Victoria 3130 Australia
Phone (03) 9877 8222 Fax (03) 9877 8444

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microtech SYDNEY • MELBOURNE		
ATTENTION: [REDACTED] ROC GASES 799 Pacific Highway CHATSWOOD NSW 2057 [REDACTED]		CO: [REDACTED]
SAMPLE: Ham Slices - as received Received on 6 August 1998 @ 2.00 pm Testing commenced on 20 August 1998		Order No: 00016
Sample Details	Lab Ref No	Total Viable Aerobic Count M2.1 cfu/g
980804 Controls - 16 Days		
# 1	17280BG	7.5 x 10 ⁷
# 2	17281BG	7.0 x 10 ⁷
# 3	17282BG	1.1 x 10 ⁷
# 4	17283BG	2.6 x 10 ⁸ (est)
980804 A1 - 16 Days		
# 5	17284BG	400 (est)
# 6	17285BG	Less than 100
980804 A2 - 16 Days		
# 7	17286BG	100 (est)
# 8	17287BG	Less than 100
980804 A3 - 16 Days		
# 9	17288BG	1.0 x 10 ⁶
# 10	17289BG	Less than 100
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Page 1 of 2 - Lab Ref No: 17280BG - 17283BG		
MICROBIOLOGICAL & CHEMICAL CONSULTANTS		

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784 P02 AUG 25 '98 12:57



BOC Gases

Sample Details	Lab Ref No	Total Viable Aerobic Count M2.1 cfu/g
980804 A4 - 16 Days		
# 11	17290BG	Less than 100
# 12	17291BG	Less than 100
980804 A5 - 16 Days		
# 13	17292BG	Less than 100
# 14	17293BG	Less than 100

The data pertains solely to the analytical and sampling procedures used and the condition and homogeneity of the sample(s) as received. The data therefore may not be representative of the lot or batch or other samples. Consequently the data may not necessarily justify the acceptance or rejection of a lot or batch, a product recall or repeat legal proceedings. This report does not imply that Microtech has been engaged to consult upon the management of the analysis and for any action that should be taken as a result of the analysis.

Date: 24.8.98

Sc.MASM, AAJFST

Consultant Microbiologist

Certificate No: 48637



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MICROBIOLOGICAL & CHEMICAL CONSULTANTS

+612-742-6190 MICROTECH LABS (NSW)

B72 P01 SEP 01 '98 11:54



ATTENTION

BOC GASES
799 Pacific Highway
CHATSWOOD NSW 2057

CO:

SAMPLE: Ham Slices (980804) @ 23 Days - as received
Received on 6 August 1998 @ 2.00 pm
Testing commenced on 27 August 1998

Order No: 00017

Sample Details	Lab Ref No	Total Viable Aerobic Count	
		M2.1	cfu/g
Control			
# 1	17294BG		3.2×10^8
# 2	17295BG		7.2×10^6
# 3	17296BG		6.5×10^6
# 4	17297BG		4.3×10^7
A-1			
# 5	17298BG		30 (est)
# 6	17299BG		Less than 10
A-2			
# 7	17300BG		1.8×10^8
# 8	17301BG		2.3×10^8
A-3			
# 9	17302BG		Less than 10
# 10	17303BG		Less than 10

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Page 1 of 2 - Lab Ref No: 17294BG - 17307BG

MICROBIOLOGICAL & CHEMICAL CONSULTANTS

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872 P02 SEP 01 '98 11:54



BOC Gases

Sample Details	Lab Ref No	Total Viable Aerobic Count	
		MLI	cfu/g
A-4			
# 11	17304BG	Less than 10	
# 12	17305BG	Less than 10	
A-5			
# 13	17306BG	Less than 10	
# 14	17307BG	Less than 10	

Consultant Microbiologist

Date: 31.8.98

.So.MASM, AAIPST

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This data pertains solely to the analytical and sampling procedures used and the condition and homogeneity of the sample(s) as received. The data therefore may not be representative of the lot or batch or other samples. Consequently the data may not necessarily justify the acceptance or rejection of a lot or batch, a product recall or subject legal proceedings. This report does not imply that Microtech has been engaged to assume any consequences of the analysis and for any action that should be taken as a result of the analysis.

Certificate No: 48791



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MICROBIOLOGICAL & CHEMICAL CONSULTANTS

TREATED AND CONTROL		STORED		AT 40C.									
B0-Cidal		ACETIC ACID	MICROBIAL	CFU/g	CFU/g	CFU/g	CFU/g	CFU/g	CFU/g	CFU/g	CFU/g	CFU/g	CFU/g
AM: TRIAL H202 AND ACETIC N.		TESTS	16 DAYS @ END SHELF LIFE.	23 DAYS + 1 WEEK									
CLIENT:		CONTROL											
FOODSTUFF:	SANDWICH HAM SLICED	S.P.C.											
USE BY:	20-AUG-98												
TEMPERATURE:	0.948												
PH:	6.3												
BOC CODE	980804A	TA = 0.25%											
GAS MIX:													
CO2 / H2O2		S.P.C.	A1	A2	A3	A4	A5	A1	A2	A3	A4	A5	
AND ACETIC N													
TREATMENT TIME:			400	100	1.00E+06	<100	<100	<100	30	1.80E+08	<10	<10	
X SECONDS		AVERAGE	<100	<100	100	5.00E+05	<100	<100	20	2.05E+08	<10	<10	
Total flow =													
TEMPERATURE		SURFACE INI PH	100% H2O2	AA	AA	AA	100% AA						
NATURAL =		2mins.	6.2	5.8	5.3	5.1	5.1						
		5mins.	6.2	6	5.9	5.6	5.4						
				6.3	6.2	6	6						
			TA = 0.29%	TA = 0.24%	TA = 0.30%	TA = 0.24%							
TEMPERATURE													
H2O2 =		PH REDUCTION =	0.1	0	0.1	0.3	0.3						



SYDNEY • MELBOURNE

ATTENTION

BOC GASES

799 Pacific Highway

CHATSWOOD NSW 2057

Fax: 9928 3922

cc:

SAMPLE: Various Samples - as received
Received on 16 September 1998

Sample Submission No: 17690

Sample Details	Lab Ref No	*Titratable Acidity (as acetic acid)	*Water Activity
980804, Ham Control, O/N: 00024	20226BG	-	0.948
980804, Ham Control, O/N: 00024	20227BG	0.25%	-
980804, Ham A1, O/N: 00024	20228BG	0.29%	-
980804, Ham A2, O/N: 00024	20229BG	0.24%	-
980804, Ham A3, O/N: 00024	20230BG	0.30%	-
980804, Ham A4, O/N: 00024	20231BG	0.24%	-
980825, Cheese Control, O/N: 00026	20232BG	-	0.938
980825A, Cheese Control, O/N: 00026	20233BG	1.6%	-
980825A, Cheese A3, O/N: 00026	20234BG	1.9%	-
980825A, Cheese A5, O/N: 00026	20235BG	2.1%	-
980812, Ham Control, O/N: 00025	20236BG	0.28%	0.950
980812, Ham A2, O/N: 00025	20237BG	0.33%	-
980812, Ham A3, O/N: 00025	20238BG	0.40%	-
980812, Ham A4, O/N: 00025	20239BG	0.40%	-
980812, Ham A5, O/N: 00025	20240BG	0.42%	-
980812, Ham B4, O/N: 00025	20241BG	0.34%	-
980812, Ham C1-90, O/N: 00025	20242BG	0.24%	-

NOTE: * The analysis was conducted at Microtech Laboratories (VIC), Reference No: 98038278.

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Date: 1.10.98

AAIFST

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04/09 '98 16:06

001



Process and Product Development Department

FAX TRANSMISSION		
To	Andrew Inglis	
Company	Loring Technologies	
Fax No.	(02) 6682 2405	
From	[Redacted]	
Date	4/9/98	No. of pages (including this page)

Message	Andrew,
As discussed previously results arising from the testing of the samples use by 20/8 - 98089	
• A1, A2 acceptable flavour with A1 being the more desirable.	
• A5 undesirable acidic note.	
Controls have y/c growth present along with a sample (one slice) of A2.	
If there are any questions don't hesitate to contact myself.	
Regards	

Note: This is a confidential message, intended solely for the person to whom it is addressed. If you receive this message in error, please forward it to the correct person, or mail it back to us. Thank you.

VAPOREX PTY LTD