R&D REPORT No. 79

Investigation of sources of tin in canned food

1999

Campden BRI

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EXECUTIVE SUMMARY

Excessive levels of tin in foods have been shown to pose a health risk and a threshold of about 200 mg/kg of tin has been reported for gastric irritation. Legislation therefore limits the maximum permitted amount of tin in foods to 200 mg/kg (Tin in Food Regulations 1992 (S.I. 1992 No. 496)). Most foods contain very low levels of tin (<10 mg/kg), although foods packed in containers which have internally-exposed tin may, under certain conditions, contain much higher levels. In 1997, MAFF published the results of a survey of canned fruits and vegetables. This survey showed that whilst the majority of products contained levels well below the legal maximum, some products did contain significant amounts of tin.

The current project involved further sampling and analysis of cans of such products and applied the knowledge of the controlling factors to the collection and interpretation of relevant information. A total of 165 retail samples from six different product types were obtained and analysed for their tin content. Other information, including packing dates, gross headspace depth, pH, vacuum and fill weights, was also collected for each sample. The product types examined included apricots, asparagus, canned tomatoes, gooseberries, grapefruit and tomato soup.

Of the 165 individual cans examined initially, only one can was found to contain food with a tin content in excess of 200 mg/kg, i.e. 0.6% of the cans examined. The average tin content of the 165 samples was 88 mg/kg. It should be acknowledged that these sample types were selected because they were likely to have higher tin contents and this mean value does not apply to canned foods in general.

Following this initial work, the study was extended to examine a further 48 cans of whole and chopped tomatoes. This extension revealed three further batch codes of canned tomatoes (six cans in total) with tin levels above 200 mg/kg.

A small number of cans of the same codes were further examined for selected samples in an effort to determine whether there were any factors which might explain the differences between samples with high tin contents and average tin contents. These investigations included analysis of the headspace gas and determination of the tin coating weight.

It was not possible to attribute the high tin levels found to any one factor or combination of factors. This suggests that differences between samples represent general variation within a population. The only exceptions to this were fully lacquered cans, which, apart from asparagus, gave product with very low (<10 mg/kg) tin levels, and some very limited

evidence which suggested that in apricots and grapefruit the use of fruit juice rather than syrup resulted in a marginal increase in tin content, although still well within regulatory limits.

It is evident from these results, therefore, that the samples came from a population in which tin levels are generally well controlled and fall within regulatory limits for tin content.

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BACKGROUND

Objective

Excessive levels of tin in foods (above 250 mg/kg) have been shown to pose a health risk (1) and a threshold for gastric irritation of about 200 mg/kg tin has been reported (2). Legislation therefore limits the maximum permitted amount of tin in foods to 200 mg/kg (Tin in Food Regulations 1992 (S.I. 1992 No. 496)). Most foods contain very low levels of tin (<10 mg/kg) (3), although foods packed in containers which have internally-exposed tin may, under certain conditions (see later), contain much higher levels. In 1997, MAFF published the results of a survey of canned fruits and vegetables (4). This survey showed that whilst the majority of products contained levels well below the legal maximum, some products did contain significant amounts of tin. Asparagus, tomatoes, apricots, grapefruit and gooseberries all contained mean tin levels in excess of 100 mg/kg. In the case of gooseberries, two of the three composite samples (two cans combined) actually exceeded the legal limit. This most recent survey therefore identified the key target products on which further work was required to investigate the reasons for such high levels and the factors that give rise to them. There are many factors that influence the amount of tin that is taken up by canned foods, and these are well understood. The current project involved further sampling and analysis of cans of these products and applied the knowledge of the controlling factors to the collection and interpretation of relevant information.

General Background Information

Tin in canned food is derived from the tin coating which is dissolved into the product during storage ⁽⁵⁾. This time dependence, together with the many other factors that control tin content, make the concept of mean tin levels difficult to deal with, even for a single product. One of the few generalisations that can be made is that tin levels in fully lacquered cans are very low ⁽⁵⁾. In cans with an unlacquered component, however, corrosion is essential in that it confers electrochemical protection to the iron which makes up the structural component of the can and so maintains the can's integrity. Tin pick-up is normally relatively slow and should not give rise to excessive tin levels within the expected storage life of a product. Under certain and unusual circumstances, however, dissolution of the tin is more rapid than it should be and high tin levels can be reached. There are numerous factors which influence the rate of tin pick-up and these factors are well established ⁽⁶⁾:

• Time and temperature – tin is dissolved over time at a rate influenced by storage temperature; initially at a higher rate than later in storage.

- Type and composition of the product several factors such as acidity/pH have a direct influence on rate of tin dissolution. Certain compounds, such as specific organic acids and natural pigments, can complex metals to alter the corrosivity of the product in respect of tin and iron ⁽⁷⁾.
- Presence of certain ions certain ions, such as nitrates ^(8,9) and sulphides, can greatly increase the rate of corrosion. These can arise from the product itself, from ingredients such as water and sugar, or from contaminants such as certain pesticide residues.
- Processing variables factors such as the amount of air in the container at seaming have a direct bearing on the extent of corrosion and tin content.
- Exposure of the tinplate the area of exposure of tin is less important than the presence or absence of exposed metal. Containers with no exposed tin will give low tin levels, whereas products where there is even partial exposure, e.g. asparagus with one plain end or a "tin fillet", will dissolve tin at significant levels.
- Tin-coating weight although the thickness of the tin coating will ultimately limit the
 maximum possible level of tin, the rate of tin pick-up is increased when thinner tin
 coatings are used. Many other aspects of container specification are also important, e.g. tin
 crystal size, passivation treatment.

Experimental studies to investigate the way in which factors affect tin pick-up were not appropriate in this project. As already stated, the knowledge on factors is already available and studies of this type would not identify the specific cause in the particular instances found in this or any previous survey. For this reason, this project took the form of a further study in which the samples were fully characterised and the data collected was sufficiently detailed to allow subsequent analysis.

Interpretation of Results and Reporting

From the data collected in this project, two types of information were produced. Firstly, the results provide additional data on the levels of tin present in retail samples of these specific products. The second type of information arises from the interpretation of the data, including factors involving the product, container, processing, and storage.

DETAILS OF THIS WORK

Sample Collection

The detail of the sampling plan was agreed with MAFF and is shown in Appendix 1. Samples were collected from a range of retail sources from across the country. The sample set was designed to consist of 20 cans of apricots, 20 cans of asparagus, 20 cans of gooseberries, 20 cans of grapefruit, 20 cans of tomato soup and 50 cans of tomatoes, giving a total of 150 samples. In the event, 165 samples were collected and analysed. Two further cans of each code were also collected at the same time to enable appropriate additional tests to be carried out on selected samples, if required. The selection of samples took into account different can sizes, different countries of origin, different brands, different batch codes, and, in the case of tomatoes, different forms, e.g. whole peeled, chopped, etc. The three replicate cans in each sample were coded A, B and C.

For the extension to this work, sampling was limited to the Midlands since there was no evidence of significant regional variations in tin levels from the first part of the work. Twelve samples of chopped tomatoes and twelve samples of whole tomatoes were obtained from retail sources. Each sample consisted of three cans bearing identical batch codes.

Upon receipt at CCFRA, samples were logged to record product details and register the samples as ready for analysis.

Obtaining Detailed Information of Product Age

As previously noted, one of the major factors determining tin level is time. The age of the canned product is therefore a highly important piece of information. From the production code and/or the best-before date, the age of the cans at the time of opening was established. In most instances this required the code to be interpreted by the manufacturer or retailer; CCFRA used its many contacts to acquire this information. Thus, brand and batch code data were used merely to seek the assistance of manufacturers on canning dates rather than to identify individual results. Brand and batch code data are not therefore included in the report.

Analysis

Initial studies were made on one can (can A) from each sample. In order to ensure that all relevant information was collected, certain preliminary analyses were essential. Fill weight

was measured by weighing the filled can and, after emptying, washing and drying, weighing the empty can, the difference being the net (fill) weight. The vacuum was measured by use of a gauge and the gross headspace depth was measured by micrometer-type measurement. Cans were opened and the contents transferred to a sealed glass or plastic vessel in readiness for analysis (samples were not left in the cans after opening). The internal condition of the cans was visually examined in the intact can after removal of one end. The cans were then washed and dried before being stored in case further examination was required. The entire can contents were homogenised and the tin content was determined by a UKAS accredited method (CCFRA test method TES-AC-099) with a detection limit of 5 mg/kg on a wet weight basis. A more sensitive method with a detection limit of 0.02 mg/kg was available (CCFRA test method TES-AC-307) but was considered unnecessary for this study.

In the extension to the study, two cans from each batch code were analysed, the third can being retained for possible future examination.

Further Studies

Where high tin levels were found in individual cans, further studies were made of other cans with the same sample codes (cans B and C), including headspace gas analysis (for hydrogen, oxygen and argon, nitrogen, carbon dioxide and nitrous oxide), the ratio of citric to malic acid, and the measurement of the residual tin coating weight which, together with the tin content, the fill weight and the can dimensions, was used to calculate the initial tin coating weight.

Quality Control and Limits of Detection

The laboratory is UKAS accredited for the determination of tin under its current scope of accreditation. CCFRA has taken part in all available FAPAS rounds for tin. The method used has a detection limit of 5 mg/kg. A more sensitive method with a detection limit of 0.02 mg/kg was available but was considered unnecessary for this study. The method used has a repeatability of \pm 5.0 mg/kg tin below 100 mg/kg and \pm 5% above 100 mg/kg. All samples were analysed in duplicate, and the repeatability for duplicate samples in this work was typically <1%. Each batch of analyses included at least one spiked sample, the recovery of which has to fall between 85-115%, otherwise all analyses in the batch have to be repeated. In this study, the requirement for recovery levels was met in all cases.

RESULTS

Initial Study

Of the 165 individual cans examined initially, only one can (sample no. 148) was found to contain product with tin in excess of 200 mg/kg, i.e. 0.6% of the cans examined (Appendix 2).

The tin content data from individual cans, together with details of container specification, are given in Appendix 2 and are summarised in Table 1.

Table 1: Summary of Tin Contents (mg/kg)

Product	No. of Samples	Minimum	Maximum	Mean	Mode	Median
Apricots	22	<5	160	75	<5	73.5
Asparagus	20	38	172	110	-	111.5
Canned tomatoes	53	<5	262*	87	63	88
Gooseberries	20	98	171	109	103	106
Grapefruit	25	64	172	94	64	89
Tomato soup	25	<5	165	65	<5	80
Total	165	<5	262	88	<5	89

* Next highest value 194mg/kg

When examined overall, tin contents of all the cans were shown to be distributed in a bimodal distribution (Appendix 5, Figure 1). However, examination of the data showed that this was made up of a small number of cans with very low (<10 mg/kg) tin contents, together with a much larger number which are distributed according to a slightly skewed normal distribution. All of the cans with very low tin contents (<10 mg/kg) were fully lacquered cans. There was no significant correlation between tin content and can age (Appendix 5, Figure 2), can fill weight (Appendix 5, Figure 3), gross headspace depth (Appendix 5, Figure 4), pH of the can

contents (Appendix 5, Figure 5) or the can vacuum (Appendix 5, Figure 6) when the whole population of 165 samples was examined.

Results for the individual product types are detailed below.

Apricots

The average tin content of the apricot samples was 75.4 mg/kg (Table 2), with a range from <5 mg/kg (three samples, all packed in fully lacquered cans) to 160 mg/kg (sample 116). The distribution (Appendix 5, Figure 7) was bimodal, the larger group of plain-bodied cans appearing to form a skewed normal distribution. The age of the cans at opening varied from 49 to 796 days.

Table 2: Summary of Data for Apricots

	Tin (mg/kg)	Age (Days)	Filled Weights (g)	рН	Gross Headspace Depth (mm)	Vacuum (in. Hg)	Declared Weight (g)
Mean	75	390	396	3.5	10.0	9.9	380
Range (minimum)	<5	49	228	3.1	14.3	5.5	225
Range (maximum)	160	796	443	4.4	5.1	17.0	420

No samples contained excessive tin levels. There was no obvious correlation between tin content and any of the measured parameters, i.e. age at opening (Appendix 5, Figure 8), filled weights (Appendix 5, Figure 9), gross headspace depth (Appendix 5, Figure 10), pH (Appendix 5, Figure 11) or vacuum (Appendix 5, Figure 12). As mentioned above, three cans did, however, exhibit very low tin levels (<5 mg/kg), but these were fully lacquered. Of the remaining cans, five had partly lacquered bodies and these had tin contents ranging from 50 mg/kg to 152 mg/kg. This specification of can does not appear therefore to influence tin pick-up significantly in comparison with a fully plain unlacquered can body. The only other variable which may influence tin levels is the type of carrying liquor used, juice giving higher

results than syrup when packed in plain cans (Table 3). This effect could not be clearly related to pH. However, caution should be exercised with this finding, given the limited number of samples.

Table 3: Effect of Carrying Liquor on Tin Content of Apricots

Sample Type	No. of Samples	Mean Tin Content (mg/kg)
Light syrup	4	60.8
Syrup	8	81.6
Juice	10	76.3 (106.9)*

^{*} Of ten samples packed in juice, three were in lacquered cans and had tin levels of <5mg/kg. The mean of the other seven cans was 106.9mg/kg.

Nevertheless, three can codes were selected for further investigation to be representative of higher and average tin levels (Appendix 3). Analysis of the second can showed that tin levels were almost stable and that the rate of tin dissolution had plateaued, with the tin levels in the second can, measured about two months after the first can, being very similar. Headspace gas analysis failed to reveal any substantive differences between codes which would explain differences in tin contents. However, sample no. 124 (56 mg/kg tin) had a citric:malic acid ratio of 0.31, whilst sample nos. 067 (154 mg/kg tin) and 116 (153 mg/kg tin) had citric:malic acid ratios of 3.34 and 1.55 respectively. The former sample (no. 124) was packed in light syrup, whilst the latter samples (nos. 067 and 116) were packed in fruit juice.

Asparagus

All asparagus samples were canned in fully lacquered cans and, as such, the tin contents of these products appear to be higher than might be expected from a fully lacquered can. A common feature of virtually all of these cans was some degree of corrosion along the interior side seam.

Asparagus is a vegetable which is particularly sensitive to discoloration, largely due to iron from the cans combining with rutinosides in the product to form iron-rutin compounds in the tissue, which are dark green in colour. As a result, for many years asparagus was

traditionally canned in a lacquered can with a small area of exposed tinplate to allow tin pickup and inhibit iron dissolution. It would appear, therefore, that the industry has adopted a can specification which allows tin to dissolve into the product through the lacquer or through imperfections in the lacquer at a controlled rate. From the appearance of the cans, this dissolution appears to occur mainly from the side seam area, which appears to be intentionally left free of any secondary sidestripe lacquer.

The average tin content of the asparagus samples was 110 mg/kg (Table 4), with a range from 38 mg/kg (sample 53) to 172 mg/kg (sample 146) (Appendix 5, Figure 13). All of these samples were three-piece soldered cans, and all but one (sample 113) were fully lacquered on both bodies and ends. The internal condition of these cans was extremely variable, with higher tin levels generally being associated with corrosion along the side seam area. It is assumed that the side seam solder used was a pure tin type and, as such, would provide a significant amount of tin for dissolution and protection of the product quality. Two samples had markedly lower pH levels than the others, but this could not be related to tin content.

Table 4: Summary of Data for Asparagus

	Tin (mg/kg)	Age (Days)	Filled Weights (g)	pН	Gross Headspace Depth (mm)	Vacuum (in. Hg)	Declared Weight (g)
Mean	110	391	400	5.2	8.8	8.3	387.5
Range (minimum)	38	279	309	4.2	5.1	4.5	298
Range (maximum)	172	753	448	5.5	13.1	15.5	425

No samples contained tin levels which were excessive with regard to legislation. There was no obvious correlation between tin content and any of the measured parameters, i.e. age at opening (Appendix 5, Figure 14), fill weights (Appendix 5, Figure 15), gross headspace depth (Appendix 5, Figure 16), pH (Appendix 5, Figure 17) or vacuum (Appendix 5, Figure 18).

Examination of the population data for tin content in asparagus did not reveal any outliers which appeared to be particularly different from the other samples, so no further investigations were undertaken.

Canned Tomatoes

The average tin content of the canned tomato samples was 87.4 mg/kg (Table 5), with a range from less than 5 mg/kg (samples 058 and 138) to 262 mg/kg (sample 148): this was the only sample which exceeded the legal limit of 200 mg/kg. The distribution curve of tin contents was bimodal (Appendix 5, Figure 19), with six samples having very low tin contents. These six samples were all from fully lacquered cans. Once these samples were removed, the main population of cans showed a skewed distribution. Of the cans, 15.1 % (8 out of 53 samples, including the six fully lacquered samples) had tin contents of less than 50 mg/kg; 28.3 % of cans (18 out of 53) had tin contents above 100 mg/kg; and 7.5 % (4 out of 53) contained more than 150 mg/kg tin. Plots of tin content against age at opening (Appendix 5, Figure 20), fill weight (Appendix 5, Figure 21), headspace depth (Appendix 5, Figure 22), pH (Appendix 5, Figure 23) or vacuum (Appendix 5, Figure 24) failed to show any significant correlation. It should be noted that since virtually all of these cans were packed in Italy, where the tomato season is confined to the later summer months, a marked grouping of can ages would be expected in Appendix 5, Figure 20. The data for gooseberries (see below) show a more extreme form of grouping of data according to age as a result of a highly seasonal crop.

Table 5: Summary of Data for Canned Tomatoes

	Tin (mg/kg)	Age (Days)	Filled Weights (g)	рН	Gross Headspace Depth (mm)	Vacuum (in. Hg)	Declared Weight (g)
Mean	87	352	430	4.3	7.9	5.2	415
Range (minimum)	<5	282	205	3.3	4.5	1.5	200
Range (maximum)	262	679	844	4.7	12.2	16	800

It was suggested by one industrial contact that cheaper brands of canned tomatoes might be expected to have higher tin contents because higher levels of citric acid were used in these products and there may be a tendency for lower specification containers. Tin content of canned tomatoes was therefore also plotted against price for the most common size, 400g net weight, but no significant correlation was found (Appendix 5, Figure 25).

Nevertheless, three can codes were selected for further investigation to be representative of higher and average tin levels. Analysis of the second and third cans in the sample with the highest tin content (no. 148) showed that the tin content was still increasing two months after the initial analysis (Appendix 3). However, the second can with high tin (sample no. 016) did not show any marked increase. Headspace gas analysis failed to reveal any substantive differences between codes which would explain differences in tin contents, and all three samples had similar ratios of citric:malic acids.

Gooseberries

Gooseberries represent a special case in this study in that all the cans examined were produced by one factory, which at present appears to be responsible for virtually all the canned gooseberries retailed in the UK. All cans were of the same size and type, and three groups of samples were produced on the same dates (nos. 021, 087, 153, 162; nos. 141 and 154; and nos. 157, 158, 159, 160, 161, 163 and 164), so samples within these groups in fact represent replicates. The principal variable was that six samples (nos. 021, 087, 141, 153, 154 and 162) were produced from frozen gooseberries, whilst others were produced from fresh fruit. Cans produced using frozen fruit may have higher oxygen contents and so be more susceptible to detinning, according to the manufacturer. Three samples, nos. 004, 070 and 128, all produced for one retailer, were packed in a lighter syrup.

The average tin content of the gooseberry samples was 109 mg/kg (Table 6), with a range from 61 (sample 160) to 171 mg/kg (sample 134) (Appendix 5, Figure 26). No samples were found which exceeded the legal maximum tin content. As far as can be judged with such a

Table 6: Summary of Data for Gooseberries

	Tin (mg/kg)	Age (Days)	Filled Weights (g)	рН	Gross Headspace Depth (mm)	Vacuum (in. Hg)	Declared Weight (g)
Mean	109	176	321	3.0	7.9	5.9	300
Range (minimum)	61	36	316	2.8	5.1	3	300
Range (maximum)	171	412	328	3.4	9.5	11.5	300

small sample which includes a number of replicates, the tin contents represent a fairly normal distribution, suggesting that the tin content of the product within its shelf-life is under reasonable control.

When the tin contents determined were plotted against age of can at opening (Appendix 5, Figure 27), the data separated into distinct groups, reflecting the highly seasonal nature of gooseberry canning. Whilst this grouping of data made it more difficult to assess the effect of can age on tin content, there is no clear evidence of an effect of time, suggesting that all of the samples were in the stage 2 or plateau state (see Discussion and Conclusions) where there is very little change in tin content with time. Similarly, when fill weight (Appendix 5, Figure 28), gross headspace depth (Appendix 5, Figure 29), pH (Appendix 5, Figure 30) and vacuum (Appendix 5, Figure 31) were examined, no significant correlations were found, suggesting that there was no one overriding factor controlling tin content. The three samples packed in light syrup (nos. 004, 070 and 128) had tin contents in the middle of the range, so this factor did not appear to have any great significance. However, the six samples produced from frozen fruit did appear to have higher tin contents than the samples produced from fresh fruit (Table 7), but care is needed given the limited number of samples analysed.

Table 7: Tin Contents of Gooseberries in Syrup Produced from Fresh and Frozen Fruit (1998 Production)

Sample Type	No. of Samples	Mean Tin Content (mg/kg)
Frozen fruit	6	120
Fresh fruit	7	89

Examination of the population data for tin content in gooseberries did not reveal any outliers which appeared to be particularly different from the other samples, so no further investigations were undertaken.

Grapefruit

The average tin content of the grapefruit samples was 93.9 mg/kg (Table 8), with a range from 64 (samples 018 and 140) to 172 mg/kg (sample 088). The distribution of these tin levels was slightly skewed (Appendix 5, Figure 32). Plots of tin content against age of can at

Table 8: Summary of Data for Grapefruit

	Tin (mg/kg)	Age (Days)	Filled Weights (g)	рН	Gross Headspace Depth (mm)	Vacuum (in. Hg)	Declared Weight (g)
Mean	94	352	517	3.2	9.5	8.2	484
Range (minimum)	64	133	228	2.9	7.1	3	220
Range (maximum)	172	894	607	4.0	13.1	15	540

opening (Appendix 5, Figure 33), fill weight (Appendix 5, Figure 34), gross headspace depth (Appendix 5, Figure 35), pH (Appendix 5, Figure 36) and vacuum (Appendix 5, Figure 37) all failed to reveal any significant correlations.

Comparison of the tin content of samples canned in syrup, light syrup or juice showed some differences (Table 9). The number of samples canned in light syrup was probably too small to draw conclusions, but it does appear that canning grapefruit in juice gives rise to marginally higher tin levels than canning in syrup, in a similar way to apricots.

Table 9: Effect of Carrying Liquor on Tin Content of Grapefruit

Sample Type	No. of Samples	Mean Tin Content (mg/kg)
Light syrup	2	77
Syrup	11	90
Juice	12	100

The grapefruit sample with the highest tin content (no. 088; 172 mg/kg) and the sample with the nearest tin content to the average for grapefruit (no. 104; 96 mg/kg) were selected for further investigation. Analysis of the second and third cans in each case (Appendix 3) showed that tin levels were rather variable. Headspace gas analysis failed to reveal any

substantive differences between codes which would explain differences in tin contents, and both samples had similar ratios of citric and malic acids.

Tomato Soup

As with canned tomatoes, a number of samples of tomato soup were packed in fully lacquered cans and, again, these lacquers appeared to be capable of limiting tin contents in these packs to very low levels. It is interesting to note that a number of producers of canned tomato soup maintain that it is essential to pack this product in an unlacquered can in order to ensure a good red colour. Nevertheless, a number of tomato soup samples were found to be packed in lacquered cans, resulting in very low tin levels. The assessment of product colour in any methodical way was outside the scope of this study, but it is likely that an objective study of product colour would have shown tomato soups packed in lacquered cans to be browner in colour than those packed in unlacquered cans.

The average tin content of the tomato soup samples was 64.5 mg/kg (Table 10), with a range from <5 (seven samples, all packed in fully lacquered cans) to 165 mg/kg (sample 048). The distribution of tin contents was therefore bimodal, with the main population of plain-bodied cans appearing to follow the usual skewed normal distribution (Appendix 5, Figure 38). There was no obvious correlation between tin content and any of the measured parameters, i.e. age at opening (Appendix 5, Figure 39), fill weights (Appendix 5, Figure 40), gross headspace depth (Appendix 5, Figure 41), pH (Appendix 5, Figure 42) or vacuum (Appendix 5, Figure 43).

Table 10: Summary of Data for Tomato Soup

	Tin (mg/kg)	Age (Days)	Filled Weights (g)	рН	Gross Headspace Depth (mm)	Vacuum (in. Hg)	Declared Weight (g)
Mean	65	196	440	4.3	12.1	10.3	435
Range (minimum)	<5	21	296	3.8	8.2	6.0	290
Range (maximum)	165	579	810	5.2	16.3	14.5	800

The tomato soup sample with the highest tin content (no. 048; 165 mg/kg) and the sample with the nearest tin content to the average for tomato soup (no. 084; 57 mg/kg) were selected for further investigation. Analysis of the second and third cans in each case (Appendix 3) showed that tin levels in sample no. 048 were rather variable, but that those in sample no. 084 were remarkably consistent. Headspace gas analysis failed to reveal any substantive differences between codes which would explain differences in tin contents. In this case, the sample with the higher tin content had a lower citric:malic acid ratio than the low tin sample.

Extension

In the extension to the project, three batch codes (six cans) were found in which the tin content in both samples exceeded 200 mg/kg (Appendix 2); mean levels were 226, 227 and 335 mg/kg.

The data on individual cans, together with details of product and container specification, are given in Appendix 2 and are summarised in Tables 11 and 12.

Table 11: Extension - Summary of Tin Contents (mg/kg)

Product	No. of Cans	Minimum	Maximum	Mean	Mode	Median
Tomatoes	48	<5	349	94	74	76

Table 12: Extension - Summary of Data for Canned Tomatoes

	Tin (mg/kg)	Age (Days)	Filled Weights (g)	рН	Gross Headspace Depth (mm)	Vacuum (in. Hg)	Declared Weight (g)
Mean	94	327	382	4.1	8.5	5.3	371
Range (minimum)	<5	61	229	3.6	4.2	0.0	227
Range (maximum)	349	766	423	4.4	14.6	16.5	400

When examined overall, tin contents of all the cans were shown to be distributed in a bimodal distribution (Appendix 5, Figure 44). However, examination of the data shows that this is made up of a small number of cans with very low tin contents, together with a much larger number which are distributed according to a skewed normal distribution. All of the cans with very low tin contents (<10 mg/kg) were fully lacquered cans. The apparent peak on the right-hand side of Appendix 5, Figure 44 is due to the grouping of scattered samples with high tin content.

Further examination of the data shows no significant effect of pH (Appendix 5, Figure 45), vacuum (Appendix 5, Figure 46), or can weights (Appendix 5, Figure 47) on the tin content. The data for gross headspace depth (Appendix 5, Figure 48) show a very wide spread, and whilst there is no significant correlation between tin content and headspace depth, the data do appear to suggest that as headspace depth increases, so does the variability in tin levels. However, whilst the two cans with the higher tin content (nos. 175A and 175B) had relatively high gross headspace depths (12.2 mm and 10.3 mm, respectively), other cans with similarly high headspace depths had much lower tin contents. The cans having some of the higher gross headspace depths also had the lower tin contents; this, however, was because these were lacquered cans.

Examination of the effect of can age on tin content (Appendix 5, Figure 49) clearly shows that the sample was made up of three distinct populations, demonstrating the very short canning season for tomatoes. These data provide some evidence of an effect of can age on tin content, with the youngest cans grouped very tightly and the older cans much more widely spread with respect to their tin content. This supports the general view that increasing age tends to give rise to increasing tin contents, but it also demonstrates that the relationship is not a simple one. The pattern of tin content is one of a widening spread rather than a rising trend.

It is interesting to compare the tin content data for this set of samples with that for the original set of canned tomato samples purchased for the first part of this project about five months earlier. The overall mean tin content for the latest set of samples was 94 mg/kg, slightly above the figure of 87 mg/kg for the cans sampled earlier in the year. This is accounted for by the higher proportion of cans in the second sample which contained excessive levels of tin. If the cans with tin levels above the legal maximum are regarded as outliers and excluded from the calculations, the average tin content is seen to be less than in the first set of samples (Table 13). This may be related to the fact that the average age of the second set of samples at opening was slightly less, reflecting the relatively high proportion of cans filled in 1998 which were present in the second sample set.

Table 13: Extension - Comparison of Tin Contents of Two Sets of Canned Tomato Samples

Sample Set	Overall Mean (mg/kg)	Mean after Removal of Outliers (mg/kg)	Mean Can Age at Opening (Days)
First	87	84	357
Second	94	75	327

The fact that the majority of batch codes of canned tomatoes with excessive tin levels identified in this and other recent work have been of chopped tomatoes has led to the suggestion that chopped tomatoes are more prone to high tin levels than whole tomatoes. The data presented in this report would appear to lend limited support to this theory, although the relatively small number of samples involved means that any conclusions drawn must be regarded with some caution. The mean tin content of chopped tomato samples in the second set of cans was 112 mg/kg, whilst that of whole tomatoes was 63 mg/kg (Table 14).

Table 14: Extension - Comparison of Tin Contents of Whole and Chopped Tomatoes

Sample Type	No. of Cans Analysed	Overall Mean Tin Content (mg/kg)	Mean Tin Content after Removal of Outliers (mg/kg)	Mean Tin Content after Removal of Outliers and Lacquered Cans (mg/kg)	Mean Can Age at Opening (Days)
Chopped tomatoes	14	112	84	101	340
Whole tomatoes	10	63	64	68	308

If the cans with excessive levels of tin are again regarded as outliers and excluded, the difference in tin content between the two sample sets is reduced but is still substantial. If lacquered cans, which may be expected to behave in a different way, are also excluded, the difference becomes larger. However, part of the difference in tin contents may be attributable to the greater average age of the chopped tomato sample, emphasising that a more rigorously

controlled experiment is required to test whether or not chopped tomatoes do have a greater tendency to higher tin levels.

The approach to such testing may need to be different to the present experiments. In particular, it can be argued that cans with excessive tin levels should be regarded as outliers from the normally distributed population in which some qualitative difference, such as high nitrate levels, has led to high tin levels. If this is the case, a study of the numbers of cans with high tin levels as a proportion of the rest of the population may be more appropriate than a detailed study of variations in tin levels in the population as a whole. This approach would be likely to require the analysis of a larger number of cans than hitherto.

DISCUSSION AND CONCLUSIONS

Canning of foods is a method of food preservation which relies upon the hermetic sealing of foods inside a metallic container and the sterilisation of the food by heat treatment ⁽¹⁰⁾. No preservatives are therefore necessary to prevent the food spoiling due to the growth of microorganisms. Some chemical reactions can, however, continue to take place inside the can, albeit slowly; these include breakdown of colour, flavour and other natural food components. In addition, the food interacts with the container ^(11,12,13,14,15).

Conventional food cans are composed primarily of steel (iron) with a thin layer of tin applied to the internal and external surfaces. The tin coating is an essential component of the can construction and plays an active role in determining shelf-life. The most significant aspect of the role of the tin coating is that it protects the steel base plate which is the structural component of the can. Without a coating of tin, the exposed iron would be attacked by the product and this would cause serious discoloration and off-flavours in the product and swelling of the cans; in extreme cases the iron could be perforated and the cans would lose their integrity. The second role of tin is that it provides a chemically reducing environment, any oxygen in the can at the time of sealing being rapidly consumed by the dissolution of tin. This minimises product oxidation and prevents colour loss and flavour loss in certain products, and may contribute to the retention of certain nutrients. It is this positive aspect of tin that makes it appropriate for particular product types, e.g. tomato-based products, to be packed in plain tinplate containers. Several attempts to replicate this effect of quality preservation, e.g. by introducing tin into lacquers and adding permitted tin salts, have been made, but none are as effective as the normal plain tinplate can.

In order to confer these positive attributes, the tin must dissolve into the product. The rate of dissolution is normally relatively slow and shelf-life is specified such that the level of tin remains below the legal limit of 200 mg/kg within the anticipated shelf-life. Container and product specifications are defined to ensure that this is achieved.

Tin Pick-up

Many factors interact in a complex way to affect the rate at which tin concentration increases in the food. It is because of these complex interactions that the only way of reliably predicting the rate of tin pick-up, and therefore shelf-life, is through packing trials and previous experience of the product. Some of the most important factors are known to be the nature of the product itself, the presence of certain corrosion accelerators or inhibitors, the

amount of air remaining in the product at the time of sealing, the thickness and uniformity of the tin coating itself, and the storage temperature.

Two chemical factors that increase the rate of tin pick-up are residual oxygen and the presence of chemical compounds such as nitrates (sometimes referred to as cathodic depolarisers). These accelerators are used up as tin is dissolved and therefore primarily influence the earlier stages of corrosion (phase 1) (Figure 50). This means that as storage continues and the tin concentration increases, the rate at which tin is dissolved normally falls and the level of tin tends to plateau (phase 2). This reduced level of detinning continues until most of the tin is dissolved, significant iron exposure occurs, and the rate at which tin is dissolved accelerates again (phase 3) (16).

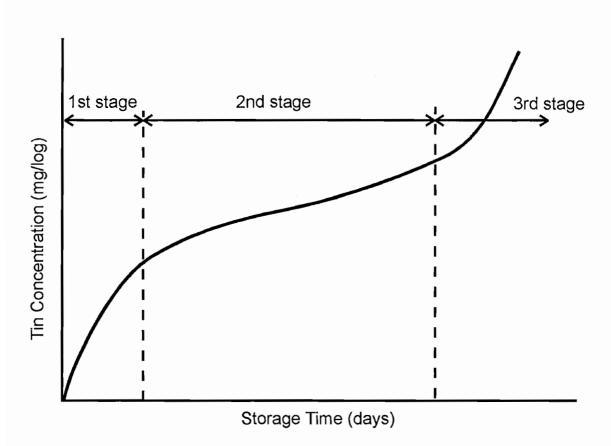


Figure 50: Tin Dissolution in Acidic Foods, Schematic Rate Curve

This third phase is normally outside the normal shelf-life and is therefore seldom of any significance until high tin levels are reached as most of the tin coating has been removed and significant iron exposure occurs.

It should be emphasised that this study was intended to examine the sources of tin in canned foods, with the object of understanding further the factors influencing tin uptake. It was **not** designed as a survey to provide an accurate measure of the tin content in products on retailers' shelves. Whilst the sampling regime used was designed to be generally representative of products available to consumers, it was not wide enough to provide an accurate measure, nor was it designed statistically to provide an accurate sample based on the numbers of units of each product sold. The aim during the purchase of samples was to provide as wide a range of samples as possible, including a range of different brands, pack sizes, countries of origin, and can age. This was achieved more successfully in some products than others: whilst a very wide range of canned tomatoes was obtained, reflecting the huge variety available, all the gooseberry samples obtained came from one canner, indicative of the limited market for this product.

However, given this proviso, the overall results from this study suggest that in the products studied, tin content is well controlled with respect to the regulatory limit of 200 mg/kg. The variation between samples within a product type was not clearly attributable to any of the measured factors. The one remaining factor which could not be taken into account was storage temperature and this may well explain some of the differences observed. Differences in storage temperature could well cause differences in tin content in products of the same batch obtained from different retail outlets. Only one out of 165 original samples was found to have a tin content above this regulatory limit. Examination of the data relating to that sample suggests that this was an unusual case: there were no factors such as extreme age or very poor vacuum to which that result could be attributed. Again, in the extension to the work on canned tomatoes, no factors clearly contributing to the high tin content could be identified.

Generally, the tin content of products in plain cans or cans with some plain component followed a skewed normal distribution. This was as expected and a similar pattern was previously found in results on over 4000 cans analysed in 1981 ⁽¹⁷⁾. At that time, the mean tin content was 84 mg/kg and approximately 5% of all cans exceeded 200 mg/kg tin (the regulatory limit at that time was 250 mg/kg). The present data indicate slightly tighter control of tin levels with only 3.3% (i.e. seven cans out of 213) exceeding 200 mg/kg. This result is especially reassuring in that the data presented in 1981 related to all products, whereas the present research was focused on product types already identified as having a tendency towards higher tin levels. This is almost certainly the explanation for the higher mean tin content (88 mg/kg) in the current data.

Effect of Carrying Liquor

Comparison of the tin content of apricot and grapefruit samples canned in syrup or juice showed some differences. Whilst the number of samples involved was small, and it would be unwise to draw too firm a conclusion, it does appear that canning apricots or grapefruit in juice gives rise to marginally higher tin levels than canning in syrup. In neither case was there any relationship between the use of fruit juice and a lower pH level, so it is most likely that the effect was due to higher levels of fruit acids, particularly citric acid which is known to encourage pitting corrosion. However, it should be emphasised that even in these cases, the tin level in the products was well controlled and was well within regulatory limits.

Effect of Using Frozen Fruit

The six gooseberry samples produced from frozen fruit appeared to have significantly higher tin contents than the samples produced from fresh fruit (Table 7), as predicted. Again, these data should be treated with caution, since a number of the samples produced from frozen fruit came from a single production batch, and other factors may be involved. It should be emphasised again that even in these cases, the tin level in the products was well controlled and was well within regulatory limits.

Sources of Tin in Canned Food

From the additional investigations into the differences between cans with high and average tin contents, it was not possible to attribute high tin levels to any one factor or combination of factors. This suggests that differences between samples represent general variation within a population. One such source of variation could well be storage temperature, which could not be taken into account but could well result in different levels in samples which were similar in all other respects.

It is evident from these results, therefore, that the samples came from a population in which tin levels were generally well controlled and fell within regulatory limits for tin content.

ACKNOWLEDGEMENTS

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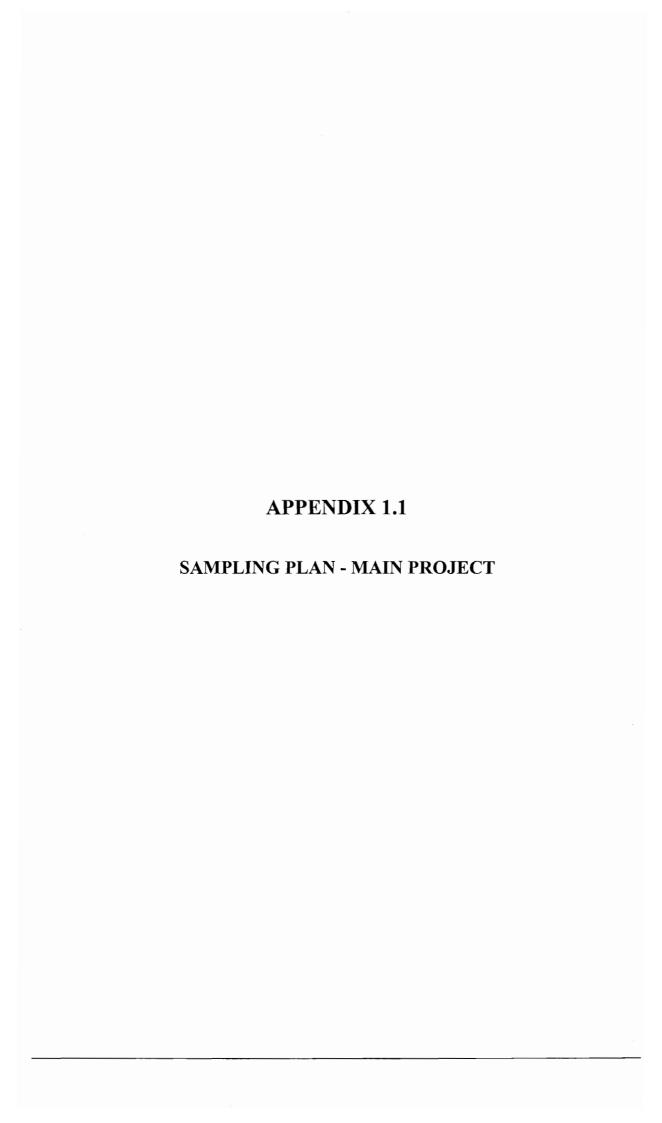
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APPENDIX 1 SAMPLING PLANS







SAMPLING PLAN - MAIN PROJECT

GEOGRAPHY

Samples will be purchased from retail outlets in the north (Grimsby area), the Midlands (Evesham area), and the south (Bristol area).

TYPES OF RETAILER

The aim will be to obtain samples which are representative of the numbers purchased across the country. Thus, whilst the majority will come from the major retailers, some will be obtained from smaller chains and from small corner shops. All the major retailers will be represented:

- CWS
- Tesco
- ASDA
- Safeway
- Sainsbury's
- Somerfield
- Marks & Spencer

together with some smaller shops and corner shops. "Smaller retailers" includes chains such as Budgens, Kwik Save, Spar, Londis, etc.

Samples (150) of canned products will be obtained, made up as follows:

Canned Product	No. of Samples
Asparagus	20
Apricots	20
Gooseberries	20
Grapefruit	20
Tomato soup	20
Tomatoes	50
Total	150

Each sample will consist of three identical cans (total 450 cans). Each can in a single sample should be the same brand, size, type, country of origin, and date code. One can will be used for the initial analysis, the remaining two being held in reserve for further investigation should a sample with high tin levels be identified. The original proposal was for two cans only to be purchased in the first instance, with further cans of the same batch to be obtained later "if possible". It has been concluded that this would be almost impossible to achieve, and that far less time and effort would be wasted by over-buying in the first instance.

Other factors to be included where possible:

- All major brand names
- "Budget" brands
- Variety of batch codes
- Imported vs. non-imported, where appropriate
- Different can sizes
- Products close to their best-before date and with a long shelf-life ahead of them

At each of three geographical sites (north, Midlands or south), the following should be obtained:

Samples (6-7) of asparagus from one corner shop, one small retailer and four or five stores chosen from CWS, Tesco, ASDA, Safeway, Sainsbury's, Somerfield, and Marks & Spencer.

Samples (6-7) of apricots from one corner shop, one small retailer and four or five stores chosen from CWS, Tesco, ASDA, Safeway, Sainsbury's, Somerfield, and Marks & Spencer.

Samples (6-7) of gooseberries from one corner shop, one small retailer and four or five stores chosen from CWS, Tesco, ASDA, Safeway, Sainsbury's, Somerfield, and Marks & Spencer.

Samples (6-7) of grapefruit from one corner shop, one small retailer and four or five stores chosen from CWS, Tesco, ASDA, Safeway, Sainsbury's, Somerfield, and Marks & Spencer.

Samples (6-7) of tomato soup from one corner shop, one small retailer and four or five stores chosen from CWS, Tesco, ASDA, Safeway, Sainsbury's, Somerfield, and Marks & Spencer.

Samples (16-17) of tomatoes from two corner shops, two small retailers and four or five stores chosen from CWS, Tesco, ASDA, Safeway, Sainsbury's, Somerfield, and Marks & Spencer.

SOURCES OF INFORMATION

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- 3. The Grocer.

PRODUCTS PURCHASED FROM VARIOUS RETAILERS

The North

			No. of Samples	Purchased Pe	r Product		
Retailer	Asparagus	Apricots	Gooseberries	Grapefruit	Tomato Soup	Tomatoes	Total
Corner shop	1	1	1	1	1	2	7
Small retailer	1	1	1	1	1	2	7
CWS	-	1	-	1	1	2	5
Tesco	1	-	-	-	1	2	4
ASDA	1	1	1	-	-	2	5
Safeway	1	1	1	1	-	2	6
Sainsbury's	1	1	1	1	1	2	7
Somerfield	-	1	1	1	1	1	5
Marks & Spencer	-		1	1	1	1	4
TOTAL	6	7	7	7	7	16	50

The Midlands

		_	No. of Samples	Purchased Pe	r Product		
Retailer	Asparagus	Apricots	Gooseberries	Grapefruit	Tomato Soup	Tomatoes	Total
Corner shop	1	1	1	1	1	2	7
Small retailer	1	1	1	1	1	2	7
CWS	1	1	1	-	-	1	4
Tesco	1	1	1	1	-	2	6
ASDA	1	1	-	1	1	2	6
Safeway	-	1	1	-	1	2	5
Sainsbury's	-	-	. 1	1	1	2	5
Somerfield	1	-	-	1	1	2	5
Marks & Spencer	1	1	-	-	1	2	5
TOTAL	7	7	6	6	7	17	50

The South

			No. of Samples	Purchased Pe	r Product		
Retailer	Asparagus	Apricots	Gooseberries	Grapefruit	Tomato Soup	Tomatoes	Total
Corner shop	1	1	1	1	1	2	7
Small retailer	1	1	1	1	1	2	7
CWS	1	-	1	1	1	2	6
Tesco	-	1	1	1	1	2	6
ASDA	-	- .	1	1	1	1	4
Safeway	1	-	-	1	1	2	5
Sainsbury's	1	1	-	-	-	2	4
Somerfield	1	1	1	-	~	2	5
Marks & Spencer	1	1	1	1	•	2	6
TOTAL	7	6	7	7	6	17	50

Overall Totals

			No. of Samples	Purchased Pe	r Product		
Retailer	Asparagus	Apricots	Gooseberries	Grapefruit	Tomato Soup	Tomatoes	Total
Corner shop	3	3	3	3	3	6	21
Small retailer	3	3	3	3	3	6	21
CWS	2	2	2	2	2	5	15
Tesco	2	2	2	2	2	6	16
ASDA	2	2	2	2	2	5	15
Safeway	2	2	2	2	2	6	16
Sainsbury's	2	2	2	2	2	6	16
Somerfield	2	2	2	2	2	5	15
Marks & Spencer	2	2	2	2	2	5	15
TOTAL	20	20	20	20	20	50	150

APPENDIX 1.2 SAMPLING PLAN - EXTENSION



SAMPLING PLAN - EXTENSION

OBJECTIVE

To establish the tin content of further batches of canned tomatoes currently on sale and to investigate factors affecting their tin content, as in the main body of the study already completed. This will provide an extended data set on the extent and possible causes of high tin contents in canned tomato products, including more recently-produced samples.

SAMPLES

Three cans from at least two separate batches of the following products to be purchased and two cans analysed (the third can to be stored against the need for confirmatory analysis):

- Up to six different whole and chopped tomato products from the same brand as sample 148 in the main study, for which a tin concentration in excess of 200 mg/kg was recorded, including the same product as sample 148 (24 samples in all)
- Six different other brands of whole and chopped tomato products to include major independent and own brands (24 samples in all).

Sampling to focus on plain whole or chopped tomatoes, which would be expected to dominate sales and consumption, rather than products with other ingredients (onions, peppers, garlic, herbs, etc.). Regional sampling is not proposed, but it may be necessary to sample from more than one local outlet in each case to obtain different batches of each product.

If more than two batches of the same product as sample 148 are on sale, these additional batches should also be sampled and analysed with numbers of other products from this brand reduced if necessary to keep the total number of individual cans analysed within 50. At least two outlets should be visited to ensure the maximum number of (and at least two) different batches of this product. If fewer than six different suitable products (i.e. plain whole or chopped tomatoes) from this brand are available, then the number of other brand products should be increased accordingly to keep to an overall total of 12 different products tested (48 individual cans).

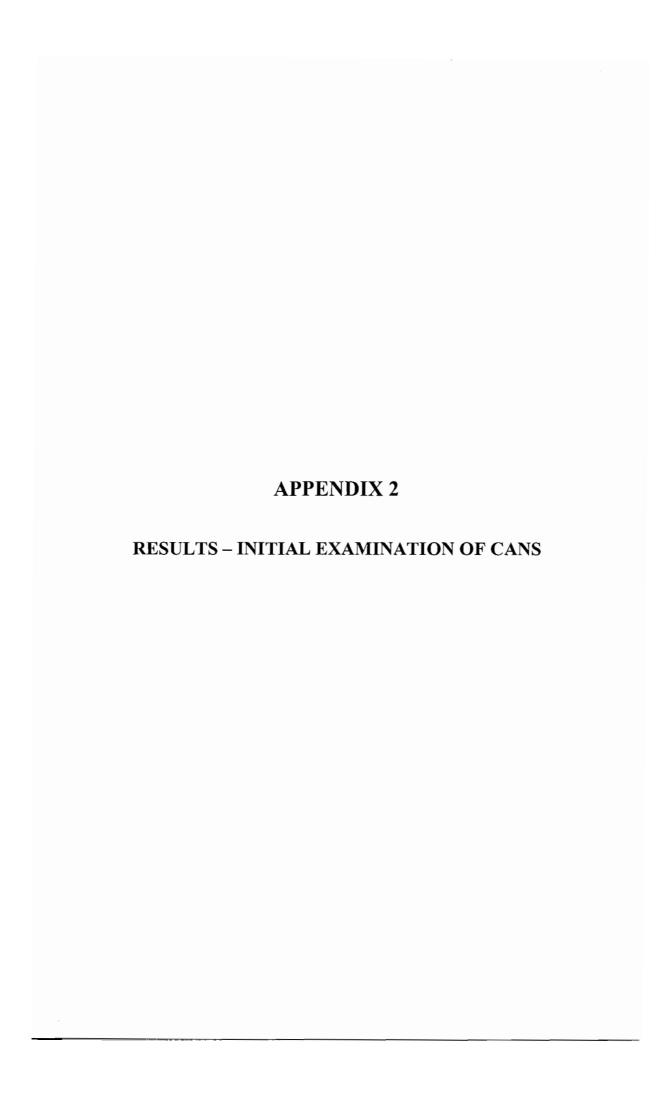
SAMPLING NOTES

Four groups of samples are required (three cans per code):

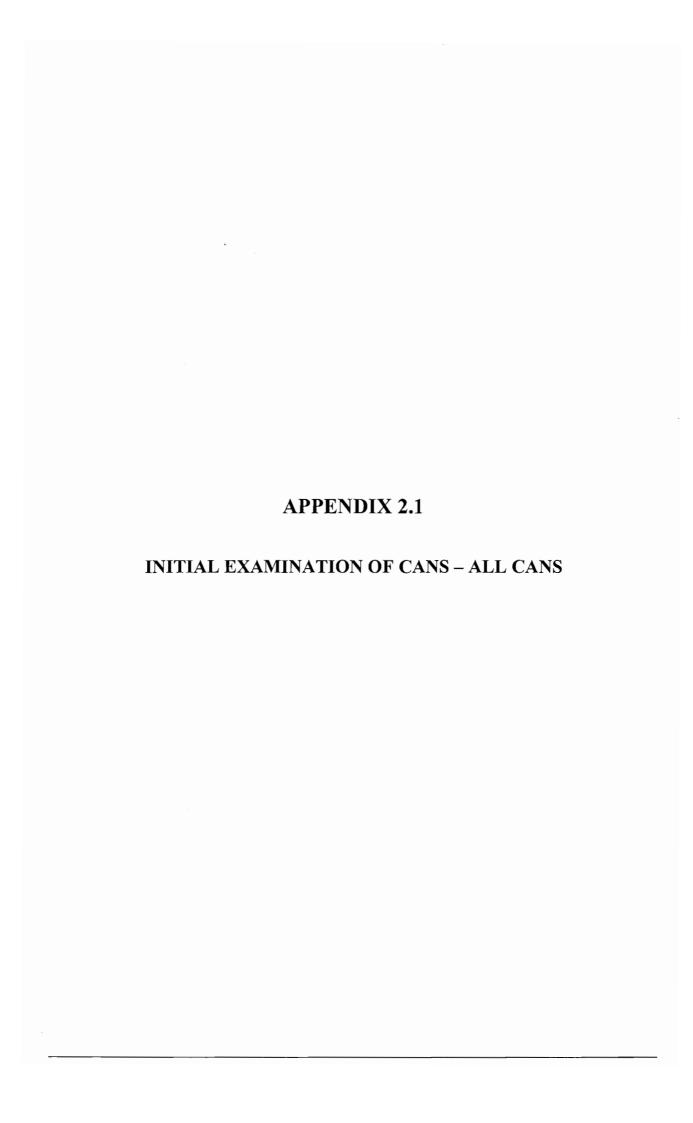
Group No.	Brand Name	Type of Tomato	No. of Products	No. of Batch Codes Required	Total No. of Cans
1	As for sample 148	Whole Tomatoes	6 products	2 codes of each	36 cans
2	As for sample 148	Chopped Tomatoes		product	
3	Other	Whole Tomatoes	6 products	2 codes of each	36 cans
4	Other	Chopped Tomatoes		product	
TOTAL				24 codes	72 cans

Samples from Group 2 must include the previously affected product (as for sample 148).

Sampling must focus on plain whole or chopped tomatoes, rather than products with added herbs, onion, garlic, etc.









		Net		
Sample No.	Product	Weight (g)	Ingredients Listed	Price (£)
001	Chopped Tomatoes	400	Tomatoes, Tomato Juice, Citric Acid	0.17
005	Apricot Halves in Fruit Juice	411	Apricot Halves, Grape Juice	0.55
003	Grapefruit Segments in Grapefruit Juice	285	Grapefruit, Grapefruit Juice	0.53
004	Gooseberries in Light Syrup	008	Gooseberries, Water, Syrup	0.55
900	Cream of Tomato Soup	410	See Appendix 2.8, Note 1	0.39
900	Thick Cut Chopped Tomatoes	400	Chopped Tomatoes, Concentrated Tomato Juice, Salt, Citric Acid	0.26
200	Grapefruit Pieces in Light Syrup	540	Grapefruit Pieces, Water, Sugar	0.47
800	Peeled Apricot Halves in Syrup	420	Apricots, Water, Glucose, Syrup	0.75
600	Peeled Plum Tomatoes	400	Tomatoes, Tomato Juice, Citric Acid	0.11
010	Special Recipe Chunky Tomato & Vegetable Soup with Pasta	415	See Appendix 2.8, Note 2	0.79
011	Whole Green Asparagus Spears	340	Whole Green Asparagus Spears, Salt, Water	1.59
012	Grapefruit Segments in Fruit Juice	411	Grapefruit, Grapefruit Juice	0.79
013	Premium Peeled Plum Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.29
014	Peeled Plum Tomatoes in Rich Tomato Juice	008	Tomatoes, Tomato Juice, Citric Acid	0.59
015	Peeled Plum Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice, Citric Acid	60.0
016	Chopped Tomatoes in Tomato Juice	400	Peeled Chopped Tomatoes, Tomato Juice, Acidity Regulator, Citric Acid	0.15
017	Cream of Tomato Soup	400	See Appendix 2.8, Note 3	0.23
018	Grapefruit Segments in Syrup	540	Grapefruit Segments, Water, Sugar	0.49
019	Apricot Halves in Fruit Juice	410	Apricots, Grape Juice, Citric Acid	0.65
020	Chopped Tomatoes with Herbs in Tomato Juice	230	Chopped Tomatoes, Tomato Juice, Salt, Oregano, Basil	0.26
021	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
022	Peeled Plum Tomatoes in Tomato Juice	268	Tomatoes, Tomato Juice, Citric Acid	0.11
023	Cream of Tomato Soup	008	See Appendix 2.8, Note 4	0.79
024	Peeled Apricot Halves in Syrup	410	Apricots, Water, Sugar	0.62
025	Broken Grapefruit Segments in Syrup	540	Grapefruit Segments, Water, Sugar	0.55
026	Condensed Italian Tomato Soup with Basil	295	See Appendix 2.8, Note 5	0.64
027	Cherry Tomatoes in Natural Tomato Juice	400	Unpeeled Cherry Tomatoes, Tomato Juice, Citric Acid	0.39
028	Peeled Plum Tomatoes in Tomato Juice	008	Tomatoes, Tomato Juice, Citric Acid	0.35
029	Breakfast Apricots in Apple Juice	300	Dried Apricots, Apple Juice	0.79
030	Grapefruit Salad in Natural Juice	538	Ruby Red and White Grapefruit, Grapefruit Juice	0.63
031	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.11
032	Chopped Tomatoes	400	Tomatoes, Concentrated Tomato Juice, Salt	0.34
033	Tomato Soup	410	See Appendix 2.8, Note 6	0.19

		Net		_
Sample No.	Product	Weight (g)	Ingredients Listed	Price (£)
034	Chopped Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice, Citric Acid	0.16
035	Asparagus Spears in Brine	340	Asparagus, Water Salt	1.37
036	Asparagus Spears	425	Asparagus Spears, Water, Salt	1.75
037	Apricot Halves in Grape Juice	411	Apricot, Grape Juice	0.55
038	Chopped Tomatoes with Basil	400	See Appendix 2.8, Note 7	0.35
039	Chopped Tomatoes with Herbs in Tomato Juice	397	Tomatoes, Tomato Juice, Salt, Dried Basil, Dried Oregano	0.29
040	Grapefruit Segments in Syrup	539	Grapefruit Segments, Water, Sugar	0.85
041	Green Asparagus Spears in Salted Water	340	Asparagus, Water, Salt	1.99
042	Peeled Plum Tomatoes in Tomato Juice	227	Peeled Tomatoes, Tomato Juice, Citric Acid	0.29
043	Apricot Halves in Syrup	411	Apricots, Water, Sugar	0.73
044	Tomato and Lentil Soup	425	See Appendix 2.8, Note 8	0.59
045	Grapefruit Segments (Red, Blush and White) in Syrup	540	Grapefruit Segments, Water, Sugar	0.99
046	Premium Italian Peeled Plum Tomatoes	400	Italian Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.29
047	Peeled Plum Tomatoes in Tomato Juice	227	Tomatoes, Tomato Juice, Citric Acid	0.27
048	Condensed Cream of Tomato Soup	295	See Appendix 2.8, Note 9	0.67
049	Grapefruit Segments (Red, Blush and White) in Syrup	240	Grapefruit segments, Water, Sugar	66.0
020	Tomato and Herb Soup	425	See Appendix 2.8, Note 10	0.59
051	Premium Italian Peeled Plum Tomatoes	400	Italian Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.29
052	Cream of Tomato Soup	295	See Appendix 2.8, Note 11	0.35
053	Cut Green Asparagus Spears	411	Cut Asparagus Spears, Salt, Water	1.09
054	Grapefruit Segments in Natural Juice	539	Grapefruit, Grapefruit Juice, Firming Agent: Calcium Chloride	0.72
055	Apricot Halves in Apple Juice and Apricot Juice	411	Apricots, Water, Apricot Puree, Concentrated Apple Juice	0.63
056	Cherry Tomatoes in Tomato Juice	400	Cherry Tomatoes, Tomato Juice, Citric Acid	0.39
057	Chopped Tomatoes with Basil in Tomato Juice	400	See Appendix 2.8, Note 12	0.35
058	Chair de Tomato	200	Tomatoes, Tomato Puree, Modified Corn Starch, Sugar, Salt, Citric Acid	0.29
028	Cream of Tomato Soup	410	See Appendix 2.8, Note 13	0.36
090	Apricot Halves in Light Syrup	410	Apricot Halves, Water, Sugar	0.53
061	Chopped Tomatoes with Onion in Tomato Juice	400	Chopped Peeled Tomatoes, Tomato Juice, Onions, Citric Acid	0.27
062	Asparagus Spears in Brine	340	Asparagus, Water, Salt	1.37
063	Chopped Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice, Citric Acid	0.15
064	Broken Grapefruit Segments in Syrup	539	Grapefruit Segments, Water, Sugar	0.48
065	98% Fat Free Italian Tomato Soup with Basil	425	See Appendix 2.8, Note 14	0.79
990	Hand Picked Plum Tomatoes	400	Tomatoes, Concentrated Tomato Juice, Salt, Citric Acid	0.25

		Net		
Sample No.	Product	Weight (g)	Ingredients Listed	Price (£)
290	Apricot Halves in Fruit Juice	411	Apricot Halves, Grape Juice	0.55
890	Grapefruit Pieces in Light Syrup	540	Grapefruit Pieces, Water, Sugar	0.47
690	Asparagus Spears	425	Asparagus Spears, Water, Salt	1.99
020	Gooseberries in Light Syrup	300	Gooseberries, Water, Sugar	0.55
071	Tomato Soup	295	See Appendix 2.8, Note 15	0.41
072	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes, Tomato Juice, Citric Acid	0.34
073	Peeled Plum Tomatoes in Tomato Juice	227	Tomatoes, Tomato Juice, Citric Acid	0.27
074	Cream of Tomato Soup	300	See Appendix 2.8, Note 16	0.48
075	Tomato and Orange Soup with Basil	425	See Appendix 2.8, Note 17	69.0
920	Breakfast Apricots in Apple Juice	300	Dried Apricots, Apple Juice	0.79
077	Grapefruit Segments in Natural Juice	220	Grapefruit Segments, Grapefruit Juice	0.41
078	Italian Chopped Tomatoes in Rich Tomato Juice	220	Tomatoes, Concentrated Tomato Juice, Citric Acid	0.25
620	Italian Peeled Plum Tomatoes in Rich Tomato Juice	793	Tomatoes, Tomato Juice, Citric Acid	0.45
080	Asparagus Cuts and Tips in Brine	425	Asparagus, Water, Salt	66.0
081	Grapefruit and Orange Segments in Syrup	420	Citrus Fruit (Grapefruit, Orange), Water, Sugar	0.78
082	Gooseberries in Syrup	300	Gooseberries, Water, Syrup	0.68
083	Apricot Halves in Syrup	420	Apricot Halves, Water, Sugar	92.0
084	Tomato Soup	400	See Appendix 2.8, Note 18	0.19
085	Cherry Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.38
980	Asparagus Cuts and Tips in Brine	425	Asparagus, Water, Salt	0.97
087	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
088	Grapefruit Sections in Grapefruit Juice	411	Grapefruit, Grapefruit Juice	69.0
680	Ruby Red Grapefruit Sections in Ruby Red Juice	539	Ruby Red Grapefruit, Ruby Red Grapefruit Juice	0.75
060	Apricot Halves in Fruit Juice	400	Apricots, Grape Juice, Citric Acid	0.65
091	Chopped Tomatoes with Herbs in Tomato Juice	230	Chopped Tomatoes, Tomato Juice, Salt, Oregano, Basil	0.26
092	Plum Tomatoes	400	Tomatoes, Tomato Juice, Citric Acid	0.12
093	Peeled Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Acidity Regulator (Citric Acid)	0.30
094	Apricot Halves in Light Syrup	411	Apricot Halves, Water, Sugar, Acidity Regulator (Citric Acid)	0.62
960	Asparagus Spears	425	Asparagus Spears, Water, Salt	2.09
960	Cream of Tomato Soup	800	See Appendix 2.8, Note 19	0.82
260	Grapefruit Segments in Fruit Juice	411	Grapefruit Segments, Grapefruit Juice	0.75
860	Cream of Tomato Soup	425	See Appendix 2.8, Note 20	0.43
660	Peeled Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.11

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Sample No.	Product	Weight (g)	Ingredients Listed	Price (£)
100	Peeled Apricot Halves in Syrup	410	Apricots, Water, Sugar	0.62
101	Italian Peeled Plum Tomatoes	800	Tomatoes, Tomato Juice	0.39
102	Broken Grapefruit Segments in Light Syrup	540	Grapefruit Segments, Water, Sugar	0.55
103	Asparagus Spears	425	Asparagus Spears, Water, Salt	2.05
104	Grapefruit Segments in Fruit Juice	538	Grapefruit Segments, Grapefruit Juice	0.75
105	Cream of Tomato Soup	800	See Appendix 2.8, Note 21	0.87
106	Peeled Apricot Halves in Syrup	420	Apricots, Water, Syrup, Sugar, Glucose Syrup	0.83
107	Peeled Plum Tomatoes in Tomato Juice	227	Tomatoes, Tomato Juice, Citric Acid	0.27
108	Peeled Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice	0.78
109	Virtually Fat Free Tomato, Vegetable and Rice Soup	290	See Appendix 2.8, Note 22	0.42
110	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.11
111	Italian Peeled Plum Tomatoes in Tomato Juice	793	Tomatoes, Tomato Juice, Citric Acid	0.45
112	Apricot Halves in Syrup	411	Apricots, Water, Sugar	0.59
113	Asparagus Spears	425	Asparagus Spears, Water, Salt	1.99
114	Ruby Red Grapefruit Segments in Juice	540	Ruby Red Grapefruit Segments and Juice, Calcium Chloride	0.59
115	"Polpissima" Chopped Tomatoes	400	Chopped Tomatoes, Tomato Juice	0.33
116	Apricot Halves in Juice	225	Peeled Apricot Halves, Grape Juice	0.37
117	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.49
118	Asparagus Cut Spears	411	Asparagus Spears, Water, Salt	0.95
119	Cream of Tomato Soup	410	See Appendix 2.8, Note 23	0.39
120	Chopped Tomatoes in Tomato Juice	220	Chopped Tomatoes, Tomato Juice, Citric Acid	0.24
121	Tomato and Lentil Soup	425	See Appendix 2.8, Note 24	0.59
122	Premium Italian Peeled Plum Tomatoes	400	Italian Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.29
123	Grapefruit Segments (Red, Blush and White) in Syrup	540	Grapefruit Segments, Water, Sugar	0.99
124	Apricot Halves in Light Syrup	411	Apricot Halves, Water, Sugar	0.55
125	Asparagus Spears	425	Asparagus Spears, Water, Salt	1.99
126	Chopped Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.17
127	Hand Picked Plum Tomatoes	400	Tomatoes, Concentrated Tomato Juice, Salt, Citric Acid	0.25
128	Gooseberries in Light Syrup	300	Gooseberries, Water, Sugar	0.55
129	Cream of Tomato Soup	400	See Appendix 2.8, Note 25	0.23
130	Ruby Red Grapefruit Segments in Grapefruit Juice	540	Ruby Red Grapefruit, Grapefruit Juice	0.75
131	Cut Asparagus Spears	298	Cut Asparagus Spears, Water, Salt	1.15
132	Tuscan Peeled Tomatoes	400	Peeled Tomatoes, Tomato Juice	0.32

		Net		
Sample	Product	Weight	Ingredients Listed	Price
No.		(a)		(£)
133	Apricot Halves in Syrup	227	Apricots, Water, Sugar, Glucose Syrup	0.53
134	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
135	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.11
136	Asparagus Cuts and Tips in Brine	425	Asparagus, Water, Salt	1.09
137	Cream of Tomato Soup	300	See Appendix 2.8, Note 26	0.41
138	Italian Chopped Tomatoes with Peppers, Onions and Herbs	400	See Appendix 2.8, Note 27	0.87
139	Basics Peeled Plum Tomatoes	400	Tomatoes, Tomato Juice, Citric Acid	0.11
140	Grapefruit Segments in Syrup	540	Grapefruit, Water, Syrup	69.0
141	Gooseberries in Syrup	300	Gooseberries, Water, Syrup	0.55
142	Organic Chopped Tomatoes	400	Chopped Tomatoes in Tomato Juice	0.69
143	Peeled Plum Tomatoes	400	Tomatoes, Tomato Juice, Citric Acid	0.11
144	Breakfast Apricots in Apple Juice	300	Apple Juice, Whole Dried Apricots (With Preservative: Sulphur Dioxide)	0.79
145	Cream of Tomato Soup	009	See Appendix 2.8, Note 28	0.59
146	Whole Green Asparagus Spears	340	Whole Green Asparagus Spears, Water, Salt	1.59
147	Grapefruit Segments in Syrup	539	Grapefruit, Water, Sugar, Firming Agent, Calcium Chloride, Citric Acid (See Appendix 2.8, Note 32)	69.0
148	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes, Tomato Juice, Citric Acid	0.30
149	Asparagus Spears in Brine	340	Asparagus, Water, Salt	1.62
150	Grapefruit Segments in Grapefruit Juice	220	Grapefruit, Grapefruit Juice	0.42
151	Apricot Halves in Light Syrup	410	Apricots, Water, Citric Acid	0.62
152	Peeled Plum Tomatoes in Rich Tomato Juice	800	Tomatoes, Tomato Juice, Citric Acid	09.0
153	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
154	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.62
155	Green Asparagus Spears in Salted Water	340	Asparagus, Water, Salt	1.99
156	Asparagus Spears	425	Asparagus Spears, Water, Salt	1.99
157	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
158	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
159	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.57
160	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.55
161	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
162	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.61
163	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
164	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
165	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.49

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	H	4.08	3.39	2.96	2.92	3.82	4.12	3.06	3.29	4.45	4.42	5.26	3.04	4.38	4.36	4.11	4.25	4.06	3.07	3.37	3.99	2.91	4.36	4.00	3.08	2.99	4.00	4.19	4.00	4.00	4.00	4.35	4.03	4.10
Gross	Headspace	6.5	9.4	11.5	7.4	12.1	9.7	12.05	8.8	7.05	9.5	8.7	8.7	6.9	8.1	5.8	9.8	12	9.7	8.8	6.2	7.1	6.1	14.7	14.3	8.5	13.7	6.0	7.1	13.5	10.2	5.2	10.1	9.3
	Vacuum	6.5	0.6	14.0	5.0	11.0	6.5	10.0	5.5	3.0	8.0	5.0	6.5	3.5	5.5	2.5	4.0	9.0	10.0	6.5	0.9	6.5	5.0	14.5	11.5	4.5	7.5	2.0	4.5	10.5	11.0	2.0	10.5	11.0
Contents	Weight	418.84	420.40	296.86	319.75	411.72	401.64	566.50	438.24	410.72	434.25	352.80	421.32	407.32	829.53	416.19	417.16	406.76	590.44	433.64	242.41	327.73	418.02	801.79	420.27	590.88	300.23	428.49	825.74	315.89	569.84	425.67	405.13	419.56
Empty	Weight	51.72	54.29	54.79	42.450	49.78	55.81	75.64	70.32	52.95	62.11	61.66	68.63	54.72	88.27	50.86	49.59	20.77	75.32	65.82	37.88	42.18	8.03	108.99	66.59	83.14	40.64	50.36	96.23	43.5	74.25	52.48	55.11	51.28
Full	Weight	470.56	474.69	351.65	362.20	461.50	457.45	642.14	508.56	463.67	496.36	414.46	489.95	462.04	917.80	467.05	466.75	457.53	665.76	499.46	280.29	369.91	468.82	910.781	486.86	674.02	340.87	478.85	921.97	359.39	644.09	478.15	460.24	470.84
No. of Days	Old When	312	381	399	376	470	315	194	549	301	291	409	349	300	310	313	282	99	174	193	302	25	302	253	292	136	175	208	029	64	584	317	308	77
	Date Can	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98
	Packing Date	21/08/97	13/06/97	26/05/97	18/06/97	16/03/97	18/08/97	17/12/97	27/12/96	01/09/97	11/09/97	16/02/97	15/07/97	02/09/97	23/08/97	20/08/97	20/09/97	05/05/98	06/01/98	18/12/97	28/08/97	12/05/98	01/09/97	23/10/97	15/12/96	17/02/98	09/01/98	30/08/97	01/09/96	15/05/98	26/11/96	20/08/97	29/08/97	17/04/98
Best	Before Date	Dec 99	Jun 99	Jul 99	99 unf	Mar 00	Dec 38	Dec 98	Jun 00	Sep 99	Sep 99	Jun 99	Dec 38	Sep 99	Dec 98	Dec 99	Feb 00	May 00	Jan 00	Dec 38	Sep 99	May 00	Feb 00	Jan 99	Dec 38	Jan 00	Jan 00	1999	Oct 99	May 00	Dec 98	Sep 99	Sep 99	Apr 00
	Date of	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	16/06/98	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98	18/06/98
	Place of	Gloucestershire	Kidderminster	Evesham	Evesham	Evesham	Evesham	Evesham	Evesham	Evesham	Evesham	Evesham	Evesham																					
	Country of	Italy	E.U	Swaziland	U.K	U.K	Italy	Turkey	South Africa	Italy	U.K	U.S.A	Swaziland	Italy	Italy	Italy	Italy	U.K.	Turkey	South Africa	Italy	U.K.		U.K.	South Africa	Swaziland	U.K.	Italy	Italy	U.K.	Israel	Italy	Italy	U.K.
	Sample	001	000	003	004	900	900	200	800	600	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033

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03/07/98 380 404.27 62.37 341.90 6.5 12.1 5.19 03/07/98 297 516.27 71.78 444.49 9.0 7.4 5.09 03/07/98 204 499.06 66.38 432.68 11.0 8.8 3.34 03/07/98 304 456.06 66.34 41.35 7.5 9.7 4.19 03/07/98 318 462.61 50.66 41.42 62.97 351.45 7.5 9.1 5.7 4.19 03/07/98 286 277.63 38.09 239.54 3.0 6.0 4.20 6.2 7.1 5.27 03/07/98 286 277.63 38.09 239.54 3.0 6.0 4.20 6.0 4.0 6.0 4.0 6.0 4.0 6.0 4.10 6.0 6.0 4.0 6.0 6.0 4.10 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 <	Italy Evesham 19/06/98 1999 06	19/06/98 1999	1999		ŏ	2/06/60/9	03/07/98	300	451.33	48.94	402.39	6.0	10.3	4.29	20
03/07/98 297 516.27 71.78 444.49 9.0 7.4 5.09 03/07/98 204 499.06 66.38 422.68 11.0 8.8 3.34 03/07/98 304 456.60 61.37 395.23 16.0 12 4.16 03/07/98 318 462.61 50.66 7.5 9.1 5.71 03/07/98 526 414.42 62.97 351.45 7.5 9.1 5.27 03/07/98 426 474.42 62.97 351.45 7.6 9.1 3.09 03/07/98 426 485.19 57.37 427.82 10.0 14.5 4.70 03/07/98 486.19 57.37 427.82 10.0 14.5 4.70 03/07/98 183 662.45 73.0 240.61 9.0 9.0 3.02 03/07/98 184 485.19 57.37 428.45 6.0 9.0 4.0 03/07/98 191 347.56 </td <td>19/06/98 Jun 00</td> <td>19/06/98 Jun 00</td> <td>Jun 00</td> <td></td> <td>18</td> <td>1/06/97</td> <td>03/0/198</td> <td>380</td> <td>404.27</td> <td>62.37</td> <td>341.90</td> <td>6.5</td> <td>12.1</td> <td>5.19</td> <td>139</td>	19/06/98 Jun 00	19/06/98 Jun 00	Jun 00		18	1/06/97	03/0/198	380	404.27	62.37	341.90	6.5	12.1	5.19	139
03/07/98 204 499.06 66.38 432.68 11.0 8.8 3.34 03/07/98 304 456.60 61.37 395.23 16.0 12 4.16 03/07/98 318 462.61 50.66 41.195 7.5 9.1 2.16 03/07/98 426 277.63 38.09 235.54 3.0 6.0 4.20 03/07/98 426 277.63 38.09 235.54 3.0 6.0 4.20 03/07/98 735 489.11 54.21 434.90 6.0 8.5 3.66 03/07/98 736 486.19 57.37 427.82 10.0 14.5 4.72 03/07/98 183 662.45 73.03 589.42 7.0 8.4 3.02 03/07/98 183 662.45 73.03 589.42 7.0 8.4 1.02 03/07/98 183 662.45 73.03 240.68 9.0 9.0 3.02 03/07/98 </td <td>Kidderminster 16/06/98 Nov 99</td> <td>Kidderminster 16/06/98 Nov 99</td> <td>Nov 99</td> <td>_</td> <td>ĕ۱</td> <td>76/60/6</td> <td>03/07/98</td> <td>297</td> <td>516.27</td> <td>71.78</td> <td>444.49</td> <td>9.0</td> <td>7.4</td> <td>5.09</td> <td>103</td>	Kidderminster 16/06/98 Nov 99	Kidderminster 16/06/98 Nov 99	Nov 99	_	ĕ۱	76/60/6	03/07/98	297	516.27	71.78	444.49	9.0	7.4	5.09	103
03/07/98 304 456.60 61.37 395.23 16.0 12 4.16 03/07/98 318 462.61 50.66 411.95 7.5 9.7 4.10 03/07/98 591 680.64 72.87 607.77 6.5 7.1 3.09 03/07/98 286 277.63 38.09 239.54 3.0 6.0 4.20 03/07/98 788 485.19 57.34 427.82 10.0 14.5 4.72 03/07/98 788 485.19 57.37 427.82 10.0 14.5 4.72 03/07/98 788 485.19 57.33 589.42 7.0 8.4 3.02 03/07/98 710 477.10 50.92 426.18 1.5 5.7 4.28 03/07/98 710 478.48 50.49 397.99 4.5 10.3 3.02 03/07/98 310 448.48 50.49 397.99 4.5 10.3 3.11 03/07/9	th Africa Kidderminster 16/06/98 Dec 99	Kidderminster 16/06/98 Dec 99	Dec 38	_	-	1/12/97	03/07/98	204	499.06	66.38	432.68	11.0	8.8	3.34	69
03/07/98 318 462.61 50.66 411.36 7.5 9.7 4.19 03/07/98 591 680.64 72.87 607.77 6.5 7.1 3.09 03/07/98 426 414.42 62.97 351.45 7.5 9.1 5.27 03/07/98 426 414.42 62.97 35.94 9.0 6.0 4.20 03/07/98 735 489.11 54.21 434.90 6.0 6.0 4.20 03/07/98 736 489.11 54.21 424.90 6.0 8.4 3.02 03/07/98 748 489.11 54.21 424.90 6.0 8.4 3.02 03/07/98 183 662.45 73.0 588.42 7.0 8.4 4.0 03/07/98 191 37.56 40.07 297.49 8.5 6.0 9.0 3.0 03/07/98 191 34.54 36.49 4.5 10.1 4.40 03/07/98	16/06/98 Oct 00	16/06/98 Oct 00	Oct 00		\circ	2/09/97	03/07/98	304	456.60	61.37	395.23	16.0	12	4.16	2
03/07/98 591 680.64 72.87 607.77 6.5 7.1 3.09 03/07/98 426 414.42 62.97 351.45 7.5 9.1 5.27 03/07/98 286 277.63 38.09 239.54 3.0 6.0 4.20 03/07/98 735 485.19 57.37 427.82 10.0 14.5 4.72 03/07/98 183 662.45 57.37 426.18 1.5 27.6 3.05 03/07/98 183 662.45 57.30 2426.18 1.5 4.73 4.73 03/07/98 183 662.45 73.1 584.65 6.0 9.0 3.02 03/07/98 193 37.56 40.07 294.65 6.0 9.0 3.07 03/07/98 310 482.48 50.49 35.7 4.5 4.08 03/07/98 310 482.46 50.49 35.7 4.5 4.08 03/07/98 31 482.48 <td>ninster 16/06/98 Sep 99</td> <td>ninster 16/06/98 Sep 99</td> <td>Sep 99</td> <td></td> <td>` 1</td> <td>19/08/97</td> <td>03/07/98</td> <td>318</td> <td>462.61</td> <td>50.66</td> <td>411.95</td> <td>7.5</td> <td>9.7</td> <td>4.19</td> <td>176</td>	ninster 16/06/98 Sep 99	ninster 16/06/98 Sep 99	Sep 99		` 1	19/08/97	03/07/98	318	462.61	50.66	411.95	7.5	9.7	4.19	176
03/07/98 426 414.42 62.97 351.45 7.5 9.1 5.27 03/07/98 286 277.63 38.09 239.54 3.0 6.0 4.20 03/07/98 735 489.11 54.21 434.90 6.0 8.5 3.66 03/07/98 736 485.19 57.37 427.82 10.0 14.5 4.72 03/07/98 183 662.45 73.0 589.42 7.0 8.4 3.02 03/07/98 183 667.75 73.1 589.42 7.0 8.4 3.02 03/07/98 183 667.75 73.1 589.62 1.0 9.8 4.08 03/07/98 183 667.75 73.1 584.65 6.0 9.0 3.02 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 31 482.54 38.43 296.11 9.5 13.1 5.30 03/07/98	Bredon 18/06/98	18/06/98		99 unf	_ '	19/11/96	03/07/98	591	680.64	72.87	607.77	6.5	7.1	3.09	72
03/07/98 286 277.63 38.09 239.54 3.0 6.0 4.20 03/07/98 735 489.11 54.21 434.90 6.0 8.5 3.66 03/07/98 736 485.19 57.37 427.82 10.0 14.5 4.72 03/07/98 183 662.45 73.03 589.42 7.0 8.4 3.02 03/07/98 310 477.10 50.92 426.18 1.5 5.7 4.33 03/07/98 347 277.92 37.29 240.63 8.5 16.3 3.86 03/07/98 347 277.92 37.29 240.63 8.5 16.3 3.86 03/07/98 348 491.94 8.76 439.93 11.0 9.8 4.08 03/07/98 346 482.41 75.76 568.80 5.5 9.3 1.1 03/07/98 379 482.41 75.76 568.80 5.5 9.3 1.1 03/07/98 <td>18/06/98</td> <td>18/06/98</td> <td></td> <td>շոր 96 unր</td> <td></td> <td>03/05/97</td> <td>03/07/98</td> <td>426</td> <td>414.42</td> <td>62.97</td> <td>351.45</td> <td>7.5</td> <td>9.1</td> <td>5.27</td> <td>147</td>	18/06/98	18/06/98		շոր 96 unր		03/05/97	03/07/98	426	414.42	62.97	351.45	7.5	9.1	5.27	147
03/07/98 735 489.11 54.21 434.90 6.0 8.5 3.66 03/07/98 548 485.19 57.37 427.82 10.0 14.5 4.72 03/07/98 183 662.45 73.03 589.42 7.0 8.4 3.02 03/07/98 183 662.45 73.03 589.42 7.0 8.4 3.02 03/07/98 310 477.10 50.92 426.18 1.5 5.7 4.33 03/07/98 347 277.92 37.29 240.63 2.0 5.3 4.40 03/07/98 183 657.75 73.1 584.65 6.0 9.0 3.02 03/07/98 310 497.58 57.65 439.93 11.0 9.5 10.1 4.46 03/07/98 310 482.14 53.7 428.81 7.5 5.1 4.31 03/07/98 326 644.56 75.76 568.80 5.5 9.3 3.11	Bredon 18/06/98 1999	18/06/98 1999	1999			20/09/97	03/07/98	286	277.63	38.09	239.54	3.0	0.9	4.20	110
03/07/98 548 485.19 57.37 427.82 10.0 14.5 4.72 03/07/98 183 662.45 73.03 589.42 7.0 8.4 3.02 03/07/98 310 477.10 50.92 426.18 1.5 5.7 4.33 03/07/98 347 277.92 37.29 240.63 2.0 5.3 4.40 03/07/98 109 337.56 40.07 297.49 8.5 16.3 3.86 03/07/98 183 657.75 73.1 584.65 6.0 9.0 3.02 03/07/98 183 667.75 73.1 584.65 6.0 9.0 3.02 03/07/98 548 497.58 57.65 439.93 11.0 9.8 4.08 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 31 482.28 76.4 426.81 5.5 8.1 3.3 03/07/98	n Bredon 18/06/98	18/06/98 Dec 9	Dec 9	Dec 98		28/06/96	03/07/98	735	489.11	54.21	434.90	0.9	8.5	3.66	82
03/07/98 183 662.45 73.03 589.42 7.0 8.4 3.02 03/07/98 310 477.10 50.92 426.18 1.5 5.7 4.33 03/07/98 310 477.10 50.92 426.18 1.5 5.7 4.33 03/07/98 347 277.92 37.29 240.63 2.0 5.3 4.40 03/07/98 163 40.07 297.49 8.5 16.3 3.86 03/07/98 183 657.75 73.1 584.65 6.0 9.0 3.02 03/07/98 183 657.75 73.1 584.65 6.0 9.0 3.02 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 310 448.48 50.28 70.61 429.67 9.5 13.1 03/07/98 310 464.56 75.76 568.80 5.5 9.3 3.11 03/07/98 326	Kidderminster 16/06/98	16/06/98		Jan 00		01/01/97	03/07/98	548	485.19	57.37	427.82	10.0	14.5	4.72	<5
03/07/98 310 477.10 50.92 426.18 1.5 5.7 4.33 03/07/98 347 277.92 37.29 240.63 2.0 5.3 4.40 03/07/98 109 337.56 40.07 297.49 8.5 16.3 3.66 03/07/98 183 657.75 73.1 584.65 6.0 9.0 3.02 03/07/98 183 657.75 73.1 584.65 6.0 9.0 3.02 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 379 500.28 70.61 429.67 9.5 13.1 4.66 03/07/98 392 482.11 53.7 428.41 7.5 8.1 3.3 03/07/98 302 482.28 55.4 408.99 7.0 10.4 1.1 03/07/98	ey Kidderminster 16/06/98 Aug 99	16/06/98 Aug 99	Aug 99	-	_	01/01/98	03/07/98	183	662.45	73.03	589.42	7.0	8.4	3.02	115
03/07/98 347 277.92 37.29 240.63 2.0 5.3 4.40 03/07/98 109 337.56 40.07 297.49 8.5 16.3 3.86 03/07/98 183 657.75 73.1 584.65 6.0 9.0 3.02 03/07/98 548 497.58 57.65 439.93 11.0 9.8 4.08 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 379 500.28 70.61 429.67 9.5 13.1 5.30 03/07/98 392 482.11 53.7 428.41 7.5 5.1 4.38 03/07/98 392 482.28 55.4 426.81 5.5 8.1 3.3 03/07/98 302 464.56 75.4 408.99 7.0 10.4 2.1 03/07/98	Kidderminster 16/06/98	ninster 16/06/98		Nov 98		27/08/97	03/07/98	310	477.10	50.92	426.18	1.5	2.3	4.33	104
03/07/98 109 337.56 40.07 297.49 8.5 16.3 3.86 03/07/98 183 657.75 73.1 584.65 6.0 9.0 3.02 03/07/98 548 497.58 57.65 439.93 11.0 9.8 4.08 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 31 334.54 38.43 296.11 9.5 10.1 4.46 03/07/98 379 500.28 70.61 429.67 9.5 13.1 5.30 03/07/98 379 500.28 70.61 429.67 9.5 13.1 4.46 03/07/98 386 482.28 55.47 426.81 5.5 8.1 3.3 03/07/98 302 464.33 55.34 408.99 7.0 10.4 4.16 03/07/98 386 491.94 53.86 408.99 7.0 10.5 4.26 03/07/98	Bredon 18/06/98	18/06/98		Feb 00		21/07/97	03/07/98	347	277.92	37.29	240.63	2.0	5.3	4.40	145
03/07/98 183 657.75 73.1 584.65 6.0 9.0 3.02 03/07/98 548 497.58 57.65 439.93 11.0 9.8 4.08 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 379 500.28 70.61 429.67 9.5 12.3 3.97 03/07/98 379 500.28 70.61 429.67 9.5 13.1 5.30 03/07/98 392 482.11 53.7 428.41 7.5 5.1 4.18 03/07/98 336 482.28 55.47 426.81 7.0 10.4 4.11 03/07/98 307 245.53 40.66 204.87 14.5 10.2 4.19 03/07/98 388 491.94 53.86 438.08 4.5 7.4 3.61 03/07/9	Bredon 18/06/98	18/06/98		Mar 00		16/03/98	03/07/98	109	337.56	40.07	297.49	8.5	16.3	3.86	165
03/07/98 548 497.58 57.65 439.93 11.0 9.8 4.08 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 379 500.28 70.61 429.67 9.5 13.1 5.30 03/07/98 252 644.56 75.76 568.80 5.5 9.3 3.11 03/07/98 392 482.11 53.7 428.41 7.5 5.1 4.38 03/07/98 302 464.33 55.34 408.99 7.0 10.4 4.11 03/07/98 307 245.53 40.66 204.87 14.5 10.2 4.19 03/07/98 308 491.94 53.86 409.28 7.0 10.4 5.2 03/07/98 287 460.13 50.85 409.28 7.0 10.4 4.3 03/07/9	ey Bristol 25/06/98 Aug 99	25/06/98 Aug 99	Aug 99	_	- 1	01/01/98	03/07/98	183	657.75	73.1	584.65	0.9	9.0	3.02	129
03/07/98 310 448.48 50.49 397.99 4.5 10.1 4.46 03/07/98 91 334.54 38.43 296.11 9.5 12.3 3.97 03/07/98 379 500.28 70.61 429.67 9.5 13.1 5.30 03/07/98 252 644.56 75.76 568.80 5.5 9.3 3.11 03/07/98 392 482.11 53.7 428.41 7.5 5.1 4.38 03/07/98 336 482.28 55.47 426.81 5.5 8.1 3.33 03/07/98 302 464.33 56.34 408.99 7.0 10.4 4.11 03/07/98 307 245.53 40.66 204.87 14.5 10.2 4.19 03/07/98 388 491.94 53.86 409.28 7.0 10.1 4.26 03/07/98 287 460.13 50.85 409.28 7.0 10.4 5.22 03/07/9	Bristol 25/06/98 Jan 00	25/06/98 Jan 00	Jan 00	_	-	01/01/97	03/07/98	548	497.58	57.65	439.93	11.0	8.6	4.08	<5
03/07/98 91 334.54 38.43 296.11 9.5 12.3 3.97 03/07/98 379 500.28 70.61 429.67 9.5 13.1 5.30 03/07/98 252 644.56 75.76 568.80 5.5 9.3 3.11 03/07/98 392 482.11 53.7 428.41 7.5 5.1 4.38 03/07/98 392 482.11 53.7 426.81 5.5 8.1 3.31 03/07/98 302 464.33 55.34 408.99 7.0 10.4 4.11 03/07/98 307 245.53 40.66 204.87 14.5 10.5 4.26 03/07/98 388 491.94 53.86 438.08 4.5 7.4 3.61 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 546 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 </td <td>Bristol 25/06/98</td> <td>25/06/98</td> <td></td> <td>Nov 98</td> <td></td> <td>27/08/97</td> <td>03/07/98</td> <td>310</td> <td>448.48</td> <td>50.49</td> <td>397.99</td> <td>4.5</td> <td>10.1</td> <td>4.46</td> <td>129</td>	Bristol 25/06/98	25/06/98		Nov 98		27/08/97	03/07/98	310	448.48	50.49	397.99	4.5	10.1	4.46	129
03/07/98 379 500.28 70.61 429.67 9.5 13.1 5.30 03/07/98 252 644.56 75.76 568.80 5.5 9.3 3.11 03/07/98 392 482.11 53.7 428.41 7.5 5.1 4.38 03/07/98 336 482.28 55.47 426.81 5.5 8.1 3.33 03/07/98 302 464.33 55.34 408.99 7.0 10.4 4.11 03/07/98 307 245.53 40.66 204.87 14.5 10.2 4.19 03/07/98 198 469.23 54.47 414.76 9.0 10.5 4.26 03/07/98 388 491.94 53.86 438.08 4.5 7.4 3.61 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98	Bristol 25/06/98	25/06/98		Oct 99		03/04/98	03/07/98	91	334.54	38.43	296.11	9.5	12.3	3.97	124
03/07/98 252 644.56 75.76 568.80 5.5 9.3 3.11 03/07/98 392 482.11 53.7 428.41 7.5 5.1 4.38 03/07/98 336 482.28 55.47 426.81 5.5 8.1 3.33 03/07/98 302 464.33 55.34 408.99 7.0 10.4 4.11 03/07/98 307 245.53 40.66 204.87 14.5 10.2 4.19 03/07/98 198 469.23 54.47 414.76 9.0 10.5 4.26 03/07/98 388 491.94 53.86 438.08 4.5 7.4 3.61 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 676 473.01 57.49 575.75 3.65 3.05 03/07/98 171	Bristol 25/06/98 Jun 99	25/06/98 Jun 9	Jun 9	Jun 99		19/06/97	03/07/98	379	500.28	70.61	429.67	9.5	13.1	5.30	38
03/07/98 392 482.11 53.7 428.41 7.5 5.1 4.38 03/07/98 336 482.28 55.47 426.81 5.5 8.1 3.33 03/07/98 302 464.33 55.34 408.99 7.0 10.4 4.11 03/07/98 307 245.53 40.66 204.87 14.5 10.2 4.19 03/07/98 198 469.23 54.47 414.76 9.0 10.5 4.26 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 546 651.24 75.49 575.75 3.05 3.05 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98	y Bristol 25/06/98	25/06/98 Dec 9	Dec 9	Dec 33		24/10/97	03/07/98	252	644.56	75.76	568.80	5.5	9.3	3.11	100
03/07/98 336 482.28 55.47 426.81 5.5 8.1 3.33 03/07/98 302 464.33 55.34 408.99 7.0 10.4 4.11 03/07/98 307 245.53 40.66 204.87 14.5 10.2 4.19 03/07/98 198 469.23 54.47 414.76 9.0 10.5 4.26 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 546 651.24 75.49 575.75 3.5 10.5 3.05 03/07/98 71 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 546 651.24 75.49 355.75 3.5 6.2 4.34 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/0	n Bristol 25/06/98	25/06/98		OO Inc		26/90/90	03/07/98	392	482.11	53.7	428.41	7.5	5.1	4.38	107
03/07/98 302 464.33 55.34 408.99 7.0 10.4 4.11 03/07/98 307 245.53 40.66 204.87 14.5 10.2 4.19 03/07/98 198 469.23 54.47 414.76 9.0 10.5 4.26 03/07/98 388 491.94 53.86 438.08 4.5 7.4 3.61 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 546 651.24 75.49 575.75 3.5 10.5 3.05 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 319 481.81 55.47 426.34 4.0 10.5 4.36	Bristol 25/06/98 Dec 99	25/06/98 Dec 99	Dec 38	_	- 1	01/08/97	03/07/98	336	482.28	55.47	426.81	5.5	8.1	3.33	115
03/07/98 307 245.53 40.66 204.87 14.5 10.2 4.19 03/07/98 198 469.23 54.47 414.76 9.0 10.5 4.26 03/07/98 388 491.94 53.86 438.08 4.5 7.4 3.61 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 546 651.24 75.49 575.75 3.5 10.5 3.05 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 319 481.81 55.47 426.34 4.0 10.5 4.36	Bristol 25/06/98	25/06/98		Aug 99		04/09/97	03/07/98	302	464.33	55.34	408.99	7.0	10.4	4.11	135
03/07/98 198 469.23 54.47 414.76 9.0 10.5 4.26 03/07/98 388 491.94 53.86 438.08 4.5 7.4 3.61 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 546 651.24 75.49 575.75 3.5 10.5 3.05 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 319 481.81 55.47 426.34 4.0 10.2 4.36	ce Bristol 25/06/98	25/06/98		Aug 00		30/08/97	03/07/98	307	245.53	40.66	204.87	14.5	10.2	4.19	<5
03/07/98 388 491.94 53.86 438.08 4.5 7.4 3.61 03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 395 418.34 67.55 350.79 15.5 10.4 5.22 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 546 651.24 75.49 575.75 3.5 10.5 3.05 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 319 481.81 55.47 426.34 4.0 10.2 4.36	25/06/98 Dec 99	25/06/98 Dec 99	Dec 38	-	· 1	17/12/97	03/07/98	198	469.23	54.47	414.76	9.0	10.5	4.26	123
03/07/98 287 460.13 50.85 409.28 7.0 10.1 4.26 03/07/98 395 418.34 67.55 350.79 15.5 10.4 5.22 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 546 651.24 75.49 575.75 3.5 10.5 3.05 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 319 481.81 55.47 426.34 4.0 10.2 4.36	25/06/98	25/06/98 Dec 9	Dec 9	Dec 38		10/06/97	03/07/98	388	491.94	53.86	438.08	4.5	7.4	3.61	20
03/07/98 395 418.34 67.55 350.79 15.5 10.4 5.22 03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 546 651.24 75.49 575.75 3.5 10.5 3.05 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 319 481.81 55.47 426.34 4.0 10.2 4.36	Stoke	25/06/98		1999		19/09/97	03/07/98	287	460.13	50.85	409.28	7.0	10.1	4.26	7
03/07/98 679 473.01 51.62 421.39 3.5 6.2 4.34 03/07/98 546 651.24 75.49 575.75 3.5 10.5 3.05 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 319 481.81 55.47 426.34 4.0 10.2 4.36	25/06/98	25/06/98		Jun 00		03/06/97	03/07/98	395	418.34	67.55	350.79	15.5	10.4	5.22	110
03/07/98 546 651.24 75.49 575.75 3.5 10.5 3.05 03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 319 481.81 55.47 426.34 4.0 10.2 4.36		52/06/98		1999		23/08/96	03/07/98	629	473.01	51.62	421.39	3.5		4.34	92
03/07/98 171 457.38 60.47 396.91 10.5 14.2 5.22 03/07/98 319 481.81 55.47 426.34 4.0 10.2 4.36	ey Stoke 25/06/98	25/06/98		Jan 00	_	03/01/97	03/07/98	546	651.24	75.49	575.75	3.5		3.05	113
03/07/98 319 481.81 55.47 426.34 4.0 10.2 4.36	Bristol 25/06/98 Jul 00	25/06/98 Jul 00	Jul 00	Jul 00	\rightarrow	13/01/98	03/07/98	171	457.38	60.47	396.91	10.5	14.2	5.22	<5
	Italy Bristol 25/06/98 Dec 99	25/06/98 Dec 9	Dec 9	Dec 38		18/08/97	03/07/98	319	481.81	55.47	426.34	4.0		4.36	151

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Ξ	Content (mg/kg)	152	101	106	86	98	86	141	83	100	<2	66	119	63	47	29	104	93	22	109	95	131	172	77		87	64	06	46	91	103	120	105	77
	рН	3.46	3.17	5.22	3.01	4.19	4.23	4.37	4.23	4.41	4.15	3.13	4.37	4.41	4.37	3.25	3.02	3.17	4.07	4.29	5.13	3.03	3.00	3.32	3.43	4.42	4.58	4.71	3.71	5.43	4.55	3.47	4.34	4.53
Gross	Headspace Depth (mm)	6.6	13.1	7.4	7.2	11.1	12.2	5.4	10.1	13.1	13.2	10.4	8.1	7.4	6.2	10.4	6.3	6.3	11.1	10.5	6.2	9.1	11.4	8.4	9.1	8.1	6.1	8.2	11.2	11.5	14.5	7.4	13.1	6.1
	Vacuum (in. Hg)	7.0	3.0	0.9	3.0	10.5	7.0	5.5	13.0	12.0	13.0	12.0	9.0	3.5	6.5	14.0	3.5	9.0	8.5	4.5	10.5	11.5	5.5	7.0	10.0	7.0	6.0	8.5	17.0	8.0	13.5	3.5	9.5	3.5
Empty Contents	Weight (g)	420.17	562.72	446.82	317.21	298.27	410.05	243.95	302.29	432.26	313.02	228.33	235.50	844.46	433.19	432.07	326.53	443.06	414.80	406.80	432.76	316.68	406.87	575.31	432.64	235.35	416.81	413.33	421.22	441.55	809.77	429.18	431.71	415.72
Empty	Weight (g)	53.96	74.21	71.59	42.71	43.99	53.02	37.99	44.00	60.15	43.83	46.59	38.58	89.42	70.99	68.85	43.12	68.01	50.09	50.74	69.93	42.54	63.16	73.49	90.99	37.99	49.98	50.63	66.32	72.68	107.96	57.99	56.58	52.60
Full	Weight (g)	474.13	636.93	518.41	359.92	342.26	463.07	281.94	346.29	492.41	356.85	274.92	274.08	933.88	504.18	500.92	369.65	511.07	464.89	457.54	502.69	359.22	470.03	648.80	498.70	273.34	466.79	463.96	487.54	514.23	917.73	487.17	488.29	468.32
No. of Days	Old When Opened	385	178	281	380	23	336	287	38	298	49	398	326	326	381	316	379	561	98	336	380	52	525	204	196	309	315	327	213	287	216	894	164	673
	Date Can Opened	03/0/198	03/02/98	03/07/98	03/07/98	03/07/98	03/02/98	03/0/1/98	03/07/98	03/0/198	03/07/98	03/07/98	03/02/98	03/02/98	03/07/98	03/07/98	03/07/98	03/0/1/98	03/07/98	03/07/98	03/07/98	03/02/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/0/198	03/07/98	03/02/98	03/07/98	03/07/98	03/02/98
	Packing Date	13/06/97	06/01/98	25/09/97	18/06/97	11/05/98	01/08/97	19/09/97	26/05/98	08/09/97	15/05/98	31/05/97	11/08/97	11/08/97	17/06/97	21/08/97	19/06/97	19/12/96	27/03/98	01/08/97	18/06/97	12/05/98	24/01/97	11/12/97	19/12/97	28/08/97	22/08/97	10/08/97	02/12/97	19/09/97	29/11/97	21/01/96	20/01/98	29/08/96
Best	Before Date	Jun 00	Dec 38	Nov 99	Jun 99	Sep 99	Feb 00	Feb 00	Aug 99	Mar 00	May 00	Aug 99	Sep 99	Sep 99	Jun 00	Dec 99	Jun 99	Jan 00	Mar 00	Dec 99	Jun 00	May 00	Apr 99	Apr 00	Dec 99	Sep 99	Dec 99	Dec 99	Dec 00	Nov 99	May 99	Jan 99	Jan 00	Oct 99
	Date of Purchase	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	25/06/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98
	Place of Purchase	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol	Bristol						
	Country of Origin	E.U.	Turkey	Peru	U.K.	U.K.	Italy	Italy		U.K.	U.K.	Swaziland	Italy	Italy	U.S.A.	Swaziland	U.K.	South Africa	U.K.	Italy	U.S.A.	U.K.	Turkey	Israel	South Africa	Italy	Italy	E.C.	South Africa	Peru	U.K.	Israel	U.K.	Italy
	Sample No.	290	890		020	071	072	073	074	075	920	220	820	620	080	081	082	083	084	085	980	087	880	680	060			093	094	960	960	260	860	660

le Courity of Durishes Place of Purchase Date of Durishes Date of Date Dot When Date Old When Depended Meight (Me) (Me) (m. Hg) Dot Both (m. Hg) Dot Bo					Best			No. of Days	Full	Empty	Contents		Gross		Tin
South Africa Bristol 01/07/98 Dec 99 20/17/98 CFG 90 03/07/98 663 916.55 91.33 67.43 47.57 14.5 6.2 Swazland Bristol 01/07/98 Oct 99 03/07/98 663 916.55 91.33 82.50 4.5 6.2 Penu Bristol 01/07/98 Nov 99 15/06/98 03/07/98 65.1 66.53 77.96 77.96 77.96 9.3 Turkey Grimsby 01/07/98 Dec 99 22/17/29 03/07/98 55.1 17.25 10.63 3.5 8.2 10.5 U.K. Grimsby 04/07/98 Dec 99 12/06/99 03/07/98 55.2 97.25 40.44 17.50 14.1 Lishy Grimsby 04/07/98 Dec 99 12/06/99 03/07/98 45.5 26.5 45.5 14.1 Lishy Cleentropes 04/07/98 Penu 14/07/98 32.0 14.1 45.5 12.3 14.5 12.3 <th>ple</th> <th>Country of</th> <th>Place of</th> <th>Date of</th> <th>Before</th> <th>Packing Date</th> <th>Date Can</th> <th>Old When</th> <th>Weight</th> <th>Weight</th> <th>Weight</th> <th>Vacuum</th> <th>Headspace</th> <th>Н</th> <th>Content</th>	ple	Country of	Place of	Date of	Before	Packing Date	Date Can	Old When	Weight	Weight	Weight	Vacuum	Headspace	Н	Content
Haly Bristol 01/07/98 Oct 96 08/09/96 03/07/98 66.3 916.35 91.33 825.02 4.5 6.2 Peru Bristol 01/07/98 Mar 00 20/02/98 330/07/98 55.1 66.63 77.96 578.57 3.5 40.4 8.5 10.3 Peru Bristol 01/07/98 Un 00 21/20/98 330/07/98 55.1 66.63 77.96 578.57 3.5 8.5 10.3 Luk Grimsby 01/07/98 Lun 00 21/20/98 330/07/98 55.1 66.63 77.96 57.85 10.4 Lialy Grimsby 04/07/98 Leb 00 150/08/97 030/07/98 45 47.56 57.25 47.56 57.57 14.1 Lialy Grimsby 04/07/98 Dec 99 250/08/97 030/07/98 45 47.56 57.27 47.56 57.75 14.1 Lialy Cleethorpes 04/07/98 Dec 99 250/08/97 030/07/98 22	100	South Africa	Bristol	2	Dec 99	20/12/96	03/07/98	560	490.57	68.26	422.31	14.5	13.1	3.51	84
Sweziland Eistel 01/07/99 Mar 00 20/02/98 03/07/98 133 674.99 83.07 561.82 8.5 10.3 Petru Bristol 01/07/98 Nov. 98 12/05/98 0307/788 52 917.25 10.83 608.87 12.0 8.2 U.K. Grimsby 01/07/98 Jul 99 12/05/98 0307/788 52 917.25 10.83 608.87 12.5 8.2 Lish Grimsby 04/07/98 Jul 99 12/05/98 0307/788 35 10.2 6.4 486.31 7.0 10.4 Italy Grimsby 04/07/98 Dec 99 12/06/99 0307/788 316 68.65.3 7.2 6.486.31 7.0 10.4 Italy Grimsby 04/07/98 Dec 99 12/06/99 0307/98 316 32.2 42.1 7.2 6.486.31 7.0 10.4 Italy Grimsby 04/07/98 Dec 99 12/06/99 0307/98 32.3 93.2	101	Italy	Bristol		Oct 99	96/60/80	03/07/98	663	916.35	91.33	825.02	4.5	6.2	4.32	63
Peru Grinsby Otto798 Nov 99 15/06/97 0307/98 551 72.39 440.48 12.0 9.3 Turkey Grimsby Otto7789 Jul 99 12/06/98 0307788 551 15.55 17.55 14.1 South Africa Grimsby Otto7789 Jul 99 12/06/98 0307788 551 569.36 72.55 42.35 14.1 South Africa Grimsby Otto7789 Jul 90 19/06/98 0307788 551 569.36 72.55 421.42 3.5 14.1 Italy Grimsby Otto7789 Dec 99 21/06/97 0307788 316 47.56 52.24 471.42 3.5 6.3 11.4 Italy Grimsby Otto7788 Dec 99 21/06/97 0307788 323 91.55 6.24 471.42 3.5 6.3 11.4 Italy Griethorpes Otto7788 April 99 19/06/97 0307788 323 91.53 04.0578 4.5 5.1 11.4 South Africa Cleethorpes Otto7788 April 99 14/06/97 0307788 224 491.54 47.55 6.35 4.1 Italy Cleethorpes Otto7788 April 99 14/06/97 0307788 224 491.54 47.55 13.0 4.1 Italy Cleethorpes Otto7788 April 99 21/11/97 0307788 224 491.54 47.25 13.0 4.1 Italy Cleethorpes Otto7788 April 99 21/11/97 0307788 224 491.54 47.18 3.5 4.5 4.1 Italy Cleethorpes Otto7788 April 99 21/11/97 0307788 224 47.18 7.08 47.25 13.0 9.1 Italy Cleethorpes Otto7788 April 99 2007788 359 360.21 42.5 37.61 3.0 9.1 Italy Cleethorpes Otto7788 April 99 2007788 359 360.21 42.5 37.61 3.0 9.2 U.K. Cleethorpes Otto7788 April 99 2007788 359 360.51 42.5 37.61 3.0 9.2 U.K. Cleethorpes Otto7788 April 99 2007788 369 360.54 42.5 37.61 3.5 4.5	102	Swaziland	Bristol	01/07/98	Mar 00	20/02/98	03/07/98	133	674.99	83.07	591.92	8.5	10.3	2.94	65
Turkey Grimsby 01/07/88 Dec 98 29/12/296 03/07/98 551 665.53 77.96 578.57 3.5 8.2 LUK. Grimsby 01/07/98 July 09 29/07/98 551 50.24 436.31 7.0 14.4 Bouth Africa Grimsby 04/07/98 July 00 29/07/98 30/07/98 3.6 22.2 42/14 3.5 5.1 Italy Grimsby 04/07/98 Feb 00 19/07/98 3.0 3.2 4.2 4.2 3.5 5.1 Italy Grimsby 04/07/98 Beb 99 26/08/97 03/07/98 3.6 3.2.3 4.6 4.6 3.5 5.1 Italy Glethorpes 04/07/98 Dec 00 14/07/98 3.0 4.6 3.3 8.2 3.2 4.4 4.5 8.3 Israel Glethorpes 04/07/98 Dec 00 14/07/98 3.0 3.0 4.4 4.6 4.6 3.5 4.7 4.4 4.6	3	Peru	Bristol	01/07/98	Nov 99	15/06/97	03/07/98	383	512.87	72.39	440.48	12.0	9.3	5.19	120
U.K. Girnesby 0.10/7/98 Jul 99 12/05/98 0.30/7/98 55 91/2.55 140.3 80.88 f 12.5 14.1 South Africa Girnesby 0.40/7/98 1.00 9.30/7/98 0.30/7/98 551 3.5 5.1 Haly Girnesby 0.40/7/98 Peo 90 2.10/8197 0.30/7/98 3.5 8.2 2.5 4.2 4.7 5.1 10.4 Haly Glenthorpes 0.40/7/98 Sep 90 2.10/8197 0.30/7/98 3.5 8.2 2.5 4.7 4.5 6.3 1.0 Lish Cleethorpes 0.40/7/98 Sep 90 2.10/8197 0.30/7/98 3.2 9.1.5 4.5 8.1 1.2 6.3 1.2 6.3 1.2 6.3 1.2 6.3 1.2 6.3 1.2 6.3 1.2 6.3 1.2 6.3 1.2 6.3 1.2 6.3 1.2 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.	104	Turkey	Grimsby	01/07/98	Dec 98	29/12/96	03/07/98	551	656.53	77.96	578.57	3.5	8.2	2.94	96
South Africa Grimsby O407798 Lun O 29/1296 0307798 551 575.78 720.5 486.31 7.0 10.4 Italy Grimsby O407798 Dec 90 15/108/97 0307798 38 25.24 421.42 3.5 6.3 Italy Grimsby 04/07798 Dec 90 15/108/97 0307798 45 33.38 38.25 25.24 421.42 3.5 6.3 Italy Gleethorpes 04/07798 Sep 99 16/06/98 0307798 473.66 5.24 451.47 4.5 8.1 Italy Gleethorpes 04/07798 Dec 00 21/11/197 0307798 224 491.54 67.09 424.45 13.0 13.2 South Africa Cleethorpes 04/07/98 Dec 00 21/11/197 0307798 224 491.54 47.56 13.0 13.2 South Africa Cleethorpes 04/07/98 Dec 00 21/11/197 0307798 224 491.64 13.0 11.1	5	U.K.	Grimsby	01/07/98	Jul 99	12/05/98	03/07/98	52	917.25	108.38	808.87	12.5	14.1	4.16	109
litaly Grimsby Q407788 Feb 00 19/09/97 0.307788 287 275.78 3.38.20 3.55 5.1 litaly Grimsby Q407788 Deg 2 1/08/09/7 0.307789 3.16 3.75 4.74 3.55 6.33 lu.K. Cleethorpes Q407788 Sep 99 26/08/97 0.307789 3.11 468.30 50.43 418.47 4.55 6.13 lialy Cleethorpes Q407788 Sep 99 26/08/97 0.307789 3.24 421.48 4.55 6.13 scuth Africa Cleethorpes Q407788 Dea 90 21/11/197 0.307798 3.24 457.14 47.85 6.53 8.3 laty Olecthorpes Q407788 Dec 90 21/11/197 0.307798 3.24 454.14 7.0 9.5 9.5 laty Olecthorpes Q407789 Dec 90 21/11/197 0.307798 3.24 424.14 4.1 3.5 6.1 Lialy Olecthorpes Q4	90	South Africa	Grimsby	04/07/98	Jun 00	29/12/96	03/02/98	551	508.36	72.05	436.31	7.0	10.4	3.32	93
litaly Grimsby Q4/07/98 Dec 99 21/08/97 0.33/07/98 316 473.66 52.4 421.42 3.5 6.3 U.K. Cleethorpes Q4/07/98 May 07 19/05/98 31.0 48.9 50.43 7.5 12.3 Italy Cleethorpes Q4/07/98 Sep 99 26/08/98 31.3 83.25 28.56.83 7.5 12.3 South Africa Cleethorpes Q4/07/98 Dec 00 21/11/97 03/07/98 22.4 491.54 41.84.7 4.5 8.1 South Africa Cleethorpes Q4/07/98 Dec 00 21/11/97 03/07/98 22.4 491.56 13.0 9.3 11.1 Isab Cleethorpes Q4/07/98 Dec 00 11/08/97 03/07/98 22.4 421.5 67.04 11.1 Isab Cleethorpes Q4/07/98 Dec 00 11/08/97 03/07/98 22.4 42.6 37.7 11.0 U.K. Cleethorpes Q4/07/98 Day <	7	Italy	Grimsby	04/07/98	Feb 00	19/09/97	03/07/98	287	275.78	37.58	238.20	3.5	5.1	4.46	100
U.K. Cleethorpes 04/07/98 May 0/0 19/05/98 03/07/98 45 33.8.8 38.25 295.63 7.5 12.3 Italy Cleethorpes 04/07/98 Sep 9 42/08/97 03/07/98 311 468.90 50.43 418.47 4.5 5.1 South Africa Cleethorpes 04/07/98 Sep 9 42/08/97 03/07/98 224 491.34 67.09 424.45 13.0 13.2 Peru Cleethorpes 04/07/98 App 9 17/06/97 03/07/98 224 491.34 67.02 424.45 13.0 13.2 Israel Cleethorpes 04/07/98 App 9 17/16/97 03/07/98 224 491.34 47.08 22.44 47.08 22.44 47.03 9.5 8.3 South Africa Cleethorpes 04/07/98 Dec 9 17/16/97 03/07/98 359 360.21 42.48 6.5 41.47 13.0 9.5 U.K. Cleethorpes 04/07/98 Ju	8	Italy	Grimsby	04/07/98	Dec 99	21/08/97	03/07/98	316	473.66	52.24	421.42	3.5	6.3	4.32	70
ltaby Cleethorpes 04/07/98 Sep 99 26/08/97 03/07/98 311 468 90 50.43 418.47 4.5 5.1 Itaby Cleethorpes 04/07/98 Sep 99 14/08/97 03/07/98 224 46.70 424.45 4.5 8.1 Penul Africa Cleethorpes 04/07/98 Nov 99 17/11/97 03/07/98 324 46.71 72.42 44.18 9.5 8.1 Penul Africa Cleethorpes 04/07/98 Nov 99 17/11/97 03/07/98 324 457.61 72.42 44.18 9.5 8.3 Israel Cleethorpes 04/07/98 Dec 90 26/11/99 03/07/98 326 457.61 57.83 407.23 10.0 11.1 South Africa Cleethorpes 04/07/98 Dec 90 26/07/98 356 367.41 72.36 47.61 57.83 47.61 72.9 47.187 13.0 9.1 Lishy Cleethorpes 04/07/98 Dec 90 26/07/98	6	U.K.	Cleethorpes	04/07/98	May 00	19/05/98	03/07/98	45	333.88	38.25	295.63	7.5	12.3	4.52	43
ltaly Centhorpes 0407788 Sep 99 140887 0307789 323 913.30 89.66 823.64 4.5 8.1 South Africa Cleethorpes 0407788 Nov 99 1770697 0307798 324 491.54 670.75 13.0 13.2 Israel Cleethorpes 0407788 Apr 99 1770697 0307798 224 644.11 73.36 570.75 13.0 9.1 Israel Cleethorpes 0407798 Dec 90 21710697 0307798 326 457.61 50.38 407.23 10.0 11.1 Lix Cleethorpes 0407798 July 0307798 326 457.61 50.36 477.23 10.0 11.1 U.K. Cleethorpes 0407798 July 0307798 359 460.21 42.56 41.72 13.0 9.1 U.K. Cleethorpes 0407798 July 0307798 286 274.23 419.43 8.5 4.5 9.1	0	Italy	Cleethorpes		Sep 99	26/08/97	03/07/98	311	468.90	50.43	418.47	4.5	5.1	4.41	56
South Africa Cleethorpes 04/07/98 Dec 00 21/11/97 03/07/98 224 491.54 67.09 424.45 13.0 13.2 Peru Cleethorpes 04/07/98 Nov 99 17/06/97 03/07/98 224 644.1 73.2 441.87 9.5 8.3 Israel Cleethorpes 04/07/98 Dec 09 21/10/99 23/07/98 224 647.61 73.8 13.0 9.1 South Africa Cleethorpes 04/07/98 Dec 09 26/12/96 03/07/98 26/27/31 13.0 9.3 U.K. Cleethorpes 04/07/98 Jul 99 09/07/99 03/07/98 20/07/98	-	Italy	Cleethorpes		Sep 99	14/08/97	03/07/98	323	913.30	99.68	823.64	4.5	8.1	4.19	80
Peru Cleethorpes 04/07/98 Nov 99 17/06/97 03/07/98 381 514.29 72.42 441.87 9.5 8.3 Israel Cleethorpes 04/07/98 Apr 99 21/11/97 03/07/98 224 644.11 73.36 570.75 13.0 9.5 8.3 Italy Cleethorpes 04/07/98 Dec 09 26/12/96 03/07/98 354 457.61 47.08 27.73 13.0 9.3 U.S.A. Cleethorpes 04/07/98 Jun 99 04/07/98 394 484.26 69.54 414.72 13.0 9.5 U.S.A. Cleethorpes 04/07/98 Jun 99 04/06/97 03/07/98 394 484.26 69.54 414.72 13.0 9.5 U.S.A. Cleethorpes 04/07/98 Jun 99 04/07/98 30/07/98 394 484.26 69.54 414.72 13.0 9.2 U.K. Cleethorpes 04/07/98 Jun 99 04/07/98 03/07/98 274.23 36	2	South Africa	Cleethorpes	04/07/98	Dec 00	21/11/97	03/07/98	224	491.54	62.09	424.45	13.0	13.2	2.93	88
Israel Cleethorpes 04/07/98 Apr 99 21/11/197 03/07/98 224 644.11 73.36 570.75 13.0 9.1 Italy Cleethorpes 04/07/98 Dec 90 21/11/197 03/07/98 326 47.61 50.38 407.23 10.0 11.1 South Africa Cleethorpes 04/07/98 Dul 99 26/12/96 03/07/98 356 47.61 47.08 227.73 13.0 9.1 U.K. Cleethorpes 04/07/98 Jul 99 04/07/98 356 41.22 3.65 41.41.72 13.0 9.1 U.K. Cleethorpes 04/07/98 Jul 99 04/07/98 2017/98 2017/99 2017/99 30/07/98 356 41.41.72 13.0 9.1 U.K. Cleethorpes 04/07/98 Lul 99 04/07/98 23/07/98 274.23 36.59 237.64 43.5 45.5 45.5 45.5 U.K. Glensby 04/07/98 Dul 20/09/97 03/07/98 274.23	3	Peru	Cleethorpes	04/07/98	Nov 99	17/06/97	03/07/98	381	514.29	72.42	441.87	9.5	8.3	5.18	113
Italy Cleethorpes 04/07/98 Dec 00 11/08/97 03/07/98 326 457.61 50.38 407.23 10.0 11.1 South Africa Cleethorpes 04/07/98 Dec 99 26/12/96 03/07/98 554 27.48 47.08 227.73 13.0 9.3 U.S.A. Cleethorpes 04/07/98 Jul 99 04/07/98 03/07/98 204 484.26 66.54 414.72 13.0 9.5 U.S.A. Cleethorpes 04/07/98 Jun 99 04/07/98 03/07/98 201 484.26 66.54 414.72 13.0 9.5 U.S.A. Cleethorpes 04/07/98 Jun 99 04/07/98 23/07/98 201 486.39 66.56 414.77 13.3 415.3 U.S.A. Grimsby 04/07/98 Dec 99 01/10/98 03/07/98 57.9 483.92 56.86 427.06 11.0 13.3 Italy Grimsby 04/07/98 01/10/98 03/07/98 73.7 486.43	4	Israel	Cleethorpes	04/07/98	Apr 99	21/11/97	03/07/98	224	644.11	73.36	570.75	13.0	9.1	3.11	75
South Africa Cleethorpes 04/07/98 Dec 99 26/12/96 03/07/98 554 274.81 47.08 227.73 13.0 9.3 U.K. Cleethorpes 04/07/98 Jul 99 09/07/97 03/07/98 360.21 42.6 317.61 5.0 9.5 U.S.A. Cleethorpes 04/07/98 Jun 99 14/12/97 03/07/98 201 48.26 66.54 414.72 10.1 U.K. Cleethorpes 04/07/98 Jun 99 14/12/97 03/07/98 206 418.29 66.56 414.72 10.1 U.K. Cleethorpes 04/07/98 Jun 99 14/12/99 03/07/98 50.6 418.26 41.0 41.0 41.0 U.K. Grimsby 04/07/98 01/01/98 03/07/98 310 41.6 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.0 41.	5	Italy	Cleethorpes	04/07/98	Dec 00	11/08/97	03/07/98	326	457.61	50.38	407.23	10.0	11.1	4.22	89
U.K. Cleethorpes 04/07/98 Jul 99 09/07/97 03/07/98 350 0.21 42.6 317.61 5.0 9.5 U.S.A. Cleethorpes 04/07/98 Jun 99 04/06/97 03/07/98 394 484.26 69.54 414.72 13.0 10.1 U.S.A. Cleethorpes 04/07/98 Jun 99 14/12/97 03/07/98 201 469.99 50.56 419.43 8.5 8.2 U.K. Cleethorpes 04/07/98 Log 02/09/97 03/07/98 286 274.23 36.59 237.64 3.5 4.5 U.K. Grimsby 04/07/98 Dec 99 01/12/98 03/07/98 183.9 56.36 427.06 11.0 13.3 Italy Grimsby 04/07/98 01/01/98 03/07/98 180 03/07/98 180 03/07/98 180 03/07/98 180 03/07/98 180 03/07/98 180 03/07/98 141 03/07/98 141 03/07/98 141 03/07/98 14	9	South Africa	Cleethorpes	04/07/98	Dec 99	26/12/96	03/07/98	554	274.81	47.08	227.73	13.0	9.3	3.19	160
U.S.A. Cleethorpes 04/07/98 Jun 99 04/06/97 03/07/98 394 484.26 69.54 414.72 13.0 10.1 U.K. Cleethorpes 04/07/98 Jun 99 14/12/97 03/07/98 201 469.99 50.56 419.43 8.5 8.2 Italy Cleethorpes 04/07/98 Feb 00 20/09/97 03/07/98 286 274.23 36.59 237.64 3.5 8.2 8.2 U.K. Grimsby 04/07/98 Dec 99 01/12/96 03/07/98 310 476.29 56.86 427.06 11.0 13.3 U.K. Grimsby 04/07/98 Doc 99 01/01/98 03/07/98 183 653.95 72.93 581.02 4.5 9.1 Spain Grimsby 04/07/98 U/01/98 03/07/98 737 486.43 54.08 4.47.71 7.0 8.2 Italy Grimsby 04/07/98 03/07/98 245.55 456.09 48.73 446.73 <td< td=""><td>7</td><td>U.K.</td><td>Cleethorpes</td><td>04/07/98</td><td>Jul 99</td><td>09/07/97</td><td>03/07/98</td><td>359</td><td>360.21</td><td>42.6</td><td>317.61</td><td>5.0</td><td>9.5</td><td>2.82</td><td>113</td></td<>	7	U.K.	Cleethorpes	04/07/98	Jul 99	09/07/97	03/07/98	359	360.21	42.6	317.61	5.0	9.5	2.82	113
U.K. Cleethorpes 04/07/98 Jun 99 14/12/97 03/07/98 201 469.99 60.56 419.43 8.5 8.2 Italy Cleethorpes 04/07/98 Feb 00 20/09/97 03/07/98 286 274.23 36.59 237.64 3.5 4.5 8.2 U.K. Grimsby 04/07/98 Dec 99 01/12/96 03/07/98 310 476.29 51.05 427.06 11.0 13.3 Italy Grimsby 04/07/98 Nov 98 01/01/98 03/07/98 183 653.95 72.93 581.02 4.5 9.1 Spain Grimsby 04/07/98 10/10/198 03/07/98 737 486.43 54.08 444.71 7.0 8.2 Peru Grimsby 04/07/98 10/04/99 18/05/97 03/07/98 737 486.43 54.08 444.71 7.0 8.2 Italy Grimsby 04/07/98 10/06/97 03/07/98 299 457.55 56.37 401.	8	U.S.A.	Cleethorpes	04/07/98	Jun 99	04/06/97	03/07/98	394	484.26	69.54	414.72	13.0	10.1	5.28	20
Italy Cleethorpes 04/07/98 Feb 00 20/09/97 03/07/98 286 274.23 36.59 237.64 3.5 4.5 U.K. Grimsby 04/07/98 Dec 99 01/12/96 03/07/98 579 483.92 56.86 427.06 11.0 13.3 Italy Grimsby 04/07/98 Nov 98 01/01/98 03/07/98 183 653.95 72.93 581.02 4.5 9.1 Spain Grimsby 04/07/98 Jun 99 26/06/96 03/07/98 737 486.43 54.08 432.35 8.0 9.2 Peru Grimsby 04/07/98 Jun 99 12/08/97 03/07/98 737 486.43 54.08 444.71 7.0 8.2 Peru Grimsby 04/07/98 Jun 99 12/08/97 03/07/98 235 456.09 444.71 7.0 8.2 Italy Grimsby 04/07/98 Jun 99 18/06/97 03/07/98 299 457.55 56.37 401.18<	9	U.K.	Cleethorpes	04/07/98	Jun 99	14/12/97	03/07/98	201	469.99	50.56	419.43	8.5	8.2	3.96	<5
U.K. Grimsby O4/07/98 Dec 99 01/12/96 03/07/98 579 483.92 56.86 427.06 11.0 13.3 Italy Grimsby 04/07/98 10/108/97 03/07/98 310 476.29 51.05 425.24 3.5 6.2 Turkey Grimsby 04/07/98 10/10/98 01/07/98 03/07/98 737 486.43 54.08 432.35 8.0 9.1 Spain Grimsby 04/07/98 Jun 99 12/08/97 03/07/98 411 57.57 72.86 444.71 7.0 8.2 Peru Grimsby 04/07/98 12/08/97 03/07/98 411 57.57 72.86 444.71 7.0 8.2 Italy Grimsby 04/07/98 12/08/97 03/07/98 299 457.55 56.37 401.18 5.5 11.1 U.K. Grimsby 04/07/98 Jun 99 18/06/97 03/07/98 27 466.78 58.5.3 35.33 3.5 5.1	0	Italy	Cleethorpes	04/07/98	Feb 00	20/09/97	03/07/98	286	274.23	36.59	237.64	3.5	4.5	4.26	49
Italy Grimsby 04/07/98 Nov 98 01/08/97 03/07/98 310 476.29 51.05 425.24 3.5 6.2 Turkey Grimsby 04/07/98 Jun 99 26/06/96 03/07/98 737 486.43 54.08 432.35 8.0 9.1 Spain Grimsby 04/07/98 Jun 99 26/06/96 03/07/98 737 486.43 54.08 432.35 8.0 9.2 Peru Grimsby 04/07/98 Dec 99 12/08/97 03/07/98 325 456.09 48.13 407.96 3.5 9.2 Italy Grimsby 04/07/98 Dec 99 12/08/97 03/07/98 299 457.55 56.37 401.18 5.5 11.1 U.K. Grimsby 04/07/98 Jun 99 18/06/97 03/07/98 299 42.55 56.37 401.18 5.5 11.1 U.K. Louth 04/07/98 Jun 99 14/06/96 03/07/98 749 665.31 83.15	1	U.K.	Grimsby	04/07/98	Dec 99	01/12/96	03/07/98	579	483.92	56.86	427.06	11.0	13.3	4.84	\$
Turkey Grimsby O4/07/98 Aug 99 01/01/98 03/07/98 183 653.95 72.93 581.02 4.5 9.1 Spain Grimsby 04/07/98 Jun 99 26/06/96 03/07/98 737 486.43 54.08 432.35 8.0 9.2 Peru Grimsby 04/07/98 Nov 99 18/05/97 03/07/98 411 517.57 72.86 444.71 7.0 8.2 Italy Grimsby 04/07/98 Dec 99 12/08/97 03/07/98 299 457.55 56.37 401.18 5.5 11.1 U.K. Louth 04/07/98 Jun 99 18/06/97 03/07/98 21 466.78 415.92 14.0 9.1 U.K. Louth 04/07/98 Jun 00 12/06/98 03/07/98 749 665.31 83.15 582.16 11.0 9.1 U.S.A. Louth 04/07/98 Nov 98 13/06/96 06/07/98 753 360.98 51.87 9.05.7	2	Italy	Grimsby	04/07/98	Nov 98	01/08/97	03/07/98	310	476.29	51.05	425.24	3.5	6.2	4.41	69
Spain Grimsby 04/07/98 Jun 99 26/06/96 03/07/98 737 486.43 54.08 432.35 8.0 9.2 Peru Grimsby 04/07/98 18/05/97 03/07/98 411 517.57 72.86 444.71 7.0 8.2 Italy Grimsby 04/07/98 Dec 99 12/08/97 03/07/98 325 457.55 56.37 401.18 5.5 11.1 U.K. Grimsby 04/07/98 Jun 99 18/06/97 03/07/98 380 367.88 42.55 325.33 3.5 5.1 U.K. Louth 04/07/98 Jun 00 12/06/98 03/07/98 749 665.31 83.15 582.16 11.0 8.1 U.S.A. Louth 04/07/98 Nov 98 13/06/96 06/07/98 753 360.98 51.87 309.11 9.5 6.1 Italy Louth 04/07/98 Sep 00 28/08/97 06/07/98 312 477.56 60.67 416.89	65	Turkey	Grimsby	04/07/98	Aug 99	01/01/98	03/07/98	183	653.95	72.93	581.02	4.5	9.1	3.09	110
Peru Grimsby 04/07/98 Nov 99 18/05/97 03/07/98 411 517.57 72.86 444.71 7.0 8.2 Italy Grimsby 04/07/98 Dec 99 12/08/97 03/07/98 325 456.09 48.13 407.96 3.5 9.2 Italy Grimsby 04/07/98 Dec 99 07/09/97 03/07/98 299 457.55 56.37 401.18 5.5 11.1 U.K. Grimsby 04/07/98 Jun 09 18/06/97 03/07/98 299 457.55 56.37 401.18 5.5 11.1 U.K. Louth 04/07/98 Jun 00 12/06/98 03/07/98 21 466.78 50.86 415.92 14.0 9.1 Swaziland Louth 04/07/98 Nov 98 13/06/96 06/07/98 753 360.98 51.87 309.11 9.5 6.1 U.S.A. Louth 04/07/98 Sp 00 28/08/97 06/07/98 312 477.56 60.67	4	Spain	Grimsby	04/07/98	Jun 99	26/06/96	03/07/98	737	486.43	54.08	432.35	8.0	9.2	3.58	77
Italy Grimsby 04/07/98 Dec 99 12/08/97 03/07/98 325 456.09 48.13 407.96 3.5 9.2 Italy Grimsby 04/07/98 Dec 99 07/09/97 03/07/98 299 457.55 56.37 401.18 5.5 11.1 U.K. Grimsby 04/07/98 Jun 99 18/06/97 03/07/98 380 367.88 42.55 325.33 3.5 11.1 U.K. Louth 04/07/98 Jun 00 12/06/98 03/07/98 749 665.31 83.15 582.16 14.0 9.1 Swaziland Louth 04/07/98 Nov 98 13/06/96 06/07/98 753 360.98 51.87 309.11 9.5 6.1 U.S.A. Louth 04/07/98 Sp 00 28/08/97 06/07/98 312 477.56 60.67 416.89 5.5 8.3	5	Peru	Grimsby	04/07/98	Nov 99	18/05/97	03/07/98	411	517.57	72.86	444.71	7.0	8.2	4.16	137
Italy Grimsby 04/07/98 Dec 99 07/09/97 03/07/98 299 457.55 56.37 401.18 5.5 11.1 U.K. Grimsby 04/07/98 Jun 99 18/06/97 03/07/98 380 367.88 42.55 325.33 3.5 5.1 U.K. Louth 04/07/98 Jun 00 12/06/98 03/07/98 749 665.31 83.15 582.16 11.0 8.1 Swaziland Louth 04/07/98 Nov 98 13/06/96 06/07/98 753 360.98 51.87 309.11 9.5 6.1 U.S.A. Louth 04/07/98 Sp 00 28/08/97 06/07/98 312 477.56 60.67 416.89 5.5 8.3	9	Italy	Grimsby	04/07/98	Dec 99	12/08/97	03/07/98	325	456.09	48.13	407.96	3.5	9.2	4.40	29
U.K. Grimsby 04/07/98 Jun 99 18/06/97 03/07/98 380 367.88 42.55 325.33 3.5 5.1 U.K. Louth 04/07/98 Jun 00 12/06/98 03/07/98 21 466.78 50.86 415.92 14.0 9.1 Swaziland Louth 04/07/98 Nov 98 13/06/96 06/07/98 753 360.38 51.87 309.11 9.5 6.1 U.S.A. Louth 04/07/98 Sep 00 28/08/97 06/07/98 312 477.56 60.67 416.89 5.5 8.3	7	Italy	Grimsby	04/07/98	Dec 99	07/09/97	03/07/98	299	457.55	56.37	401.18	5.5	11.1	4.41	139
U.K. Louth 04/07/98 Jun 00 12/06/98 03/07/98 21 466.78 50.86 415.92 14.0 9.1 Swaziland Louth 04/07/98 Dec 98 14/06/96 03/07/98 749 665.31 83.15 582.16 11.0 8.1 U.S.A. Louth 04/07/98 Nov 98 13/06/96 06/07/98 753 360.98 51.87 309.11 9.5 6.1 Itally Louth 04/07/98 Sep 00 28/08/97 06/07/98 312 477.56 60.67 416.89 5.5 8.3	8	U.K.	Grimsby	04/07/98	Jun 99	18/06/97	03/07/98	380	367.88	42.55	325.33	3.5	5.1	2.95	113
Swaziland Louth 04/07/98 Dec 98 14/06/96 03/07/98 749 665.31 83.15 582.16 11.0 8.1 U.S.A. Louth 04/07/98 Nov 98 13/06/96 06/07/98 753 360.98 51.87 309.11 9.5 6.1 Italy Louth 04/07/98 Sep 00 28/08/97 06/07/98 312 477.56 60.67 416.89 5.5 8.3	62	U.K.	Louth	04/07/98	Jun 00	12/06/98	03/07/98	21	466.78	50.86	415.92	14.0	9.1	4.05	37
U.S.A. Louth 04/07/98 Nov 98 13/06/96 06/07/98 753 360.98 51.87 309.11 9.5 6.1 Italy Louth 04/07/98 Sep 00 28/08/97 06/07/98 312 477.56 60.67 416.89 5.5 8.3	30	Swaziland	Louth		Dec 98	14/06/96	03/07/98	749	665.31	83.15	582.16	11.0	8.1	3.24	83
Italy Louth 04/07/98 Sep 00 28/08/97 06/07/98 312 477.56 60.67 416.89 5.5 8.3	31	U.S.A.	Louth		Nov 98	13/06/96	86/0/90	753	360.98	51.87	309.11	9.5	6.1	5.48	107
	132	Italy	Louth		Sep 00	28/08/97	06/07/98	312	477.56	60.67	416.89	5.5	8.3	4.66	9

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Tin	Content (mg/kg)	53	171	29	80	80	<5	88	64	114	2	63	<5	83	172	89	262	138	2.2	20	72	122	142	160	126	66	82	103	61	87	108	103	87	114
	Hd	3.52	3.42	4.72	5.45	4.45	4.46	4.57	3.59	2.98	4.26	4.22	4.11	4.01	5.41	3.26	4.31	5.33	3.16	3.32	4.45	3.07	3.44	5.54	5.37	3.05	3.35	3.29	2.96	3.03	2.99	3.02	3.15	3.01
Gross	Headspace Depth (mm)	6.4	7.0	7.4	5.1	9.3	8.1	8.3	7.3	8.5	7.3	5.5	11.2	14.1	12.4	9.1	10.5	9.1	6.9	10.1	8.2	9.3	8.4	8.4	7.4	1.7	9.2	7.1	7.3	8.4	7.2	8.5	8.4	9.1
	Vacuum (in. Hg)	9.5	4.5	3.5	4.5	11.5	4.5	4.5	7.5	10.0	3.5	3.0	8.5	6.0	6.5	12.5	3.0	7.5	15.0	13.0	4.0	8.5	8.5	5.0	6.5	10.5	4.0	3.5	5.5	4.0	7.5	4.5	5.5	3.5
Empty Contents	Weight (g)	236.41	321.37	416.63	439.10	303.22	421.68	401.47	601.93	316.71	414.78	418.19	317.73	605.63	345.32	597.24	405.91	349.87	231.04	423.81	827.68	320.58	320.84	352.80	447.99	322.99	318.51	321.95	322.46	316.48	322.65	317.18	318.32	320.18
Empty	Weight (g)	48.13	42.66	50.42	98.69	44.00	52.10	56.09	72.06	47.43	90.99	52.97	45.79	78.82	62.46	72.52	50.38	62.15	46.68	68.57	90.53	42.07	42.83	61.91	72.87	42.67	41.63	42.21	41.99	42.47	42.8	41.91	42.05	42.84
Full	Weight (g)	284.54	364.03	467.05	508.96	347.22	473.78	457.56	673.99	364.14	470.84	471.16	363.52	684.45	407.78	92.699	456.29	412.02	277.72	492.38	918.21	362.65	363.67	414.71	520.86	365.66	360.14	364.16	364.45	358.95	365.45	359.09	360.37	363.02
No. of Days	Old When Opened	226	382	318	384	22	644	929	220	105	302	318	63	62	268	223	295	377	403	962	325	26	125	444	279	36	69	69	20	20	86	50	50	412
	Date Can Opened	86/20/90	06/0/98	06/07/98	86/0/90	86/0/90	06/07/98	86/0/90	06/0/98	07/07/98	07/07/98	07/07/98	07/07/98	02/0/198	86/20/20	07/07/98	07/0/1/98	07/07/98	07/07/98	07/07/98	07/07/98	86/20/20	27/07/98	27/07/98	04/08/98	04/08/98	27/08/98	27/08/98	18/08/98	18/08/98	18/08/98	18/08/98	18/08/98	25/08/98
	Packing Date	22/11/97	19/06/97	22/08/97	17/06/97	12/05/98	30/09/96	29/08/96	28/11/97	24/03/98	08/09/97	23/08/97	05/05/98	06/04/98	05/06/97	26/11/97	15/09/97	25/06/97	30/05/97	02/05/96	16/08/97	12/05/98	24/03/98	09/05/97	29/10/97	29/06/98	29/06/98	29/06/98	29/06/98	29/06/98	12/05/98	29/06/98	29/06/98	09/07/97
Best	Before Date	Jun 01	Jun 99	Dec 38	Jun 00	Sep 99	Oct 99	Oct 99	Nov 99	Mar 00	Dec 00	Sep 99	May 00	Oct 99	Jun 99	Nov 99	Sep 99	Jun 00	Aug 99	Dec 88	Dec 99	May 00	Mar 00	Jun 99	Nov 99	Jun 00	May 00	Jun 00	Jun 00	Jul 99				
	Date of Purchase	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	04/07/98	23/7/98	23/7/98	08/01/98	25/7/98	08/10/98	86/80/80	15/8/98	15/8/98	15/8/98	15/8/98	13/8/98	20/8/98
	Place of Purchase	Louth	Louth	Louth	Louth	Louth	Louth	Louth	Louth	Louth	Grimsby	Grimsby	Grimsby	Grimsby	Grimsby	Grimsby	Chipping Campden	Chipping Campden	Worcester	Evesham	Evesham	Wigan	Evesham	Evesham	Evesham	Stratford	Hereford	Coventry						
	Country of Origin	South Africa	U.K.		U.S.A.	U.K.	Italy	Italy	e	U.K.	Italy		U.K.	U.K.	U.S.A.	Galilee	Italy	U.S.A.		South Africa		U.K.	U.K.	U.S.A.	Peru	U.K.	U.K.	U.K.	U.K.		U.K.			U.K.
	Sample No.		134			137_	138		140			143	144														158	159						165

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_		Pull						×		×		×			×																			×	
Finish	Neither	Plain	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One	Plain					×																												
End	Both Ends	Plain																																	
Finish	Partially	Plain					×				×			×	×	×	×	×	×	×		×		×			×		×	×				×	
Body Internal Finish	Fully	Plain	×	×	×	×		×	×	×											×		×		×	×						×	×		×
Body	Fully	Lacquered										×	×															×			×				
	3 Piece	Soldered											×																						
Construction	3 Piece	Welded	×	×	×	×		×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
		2 Piece					×																												
	Sample	No.	001	002	003	004	900	900	007	800	600	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033

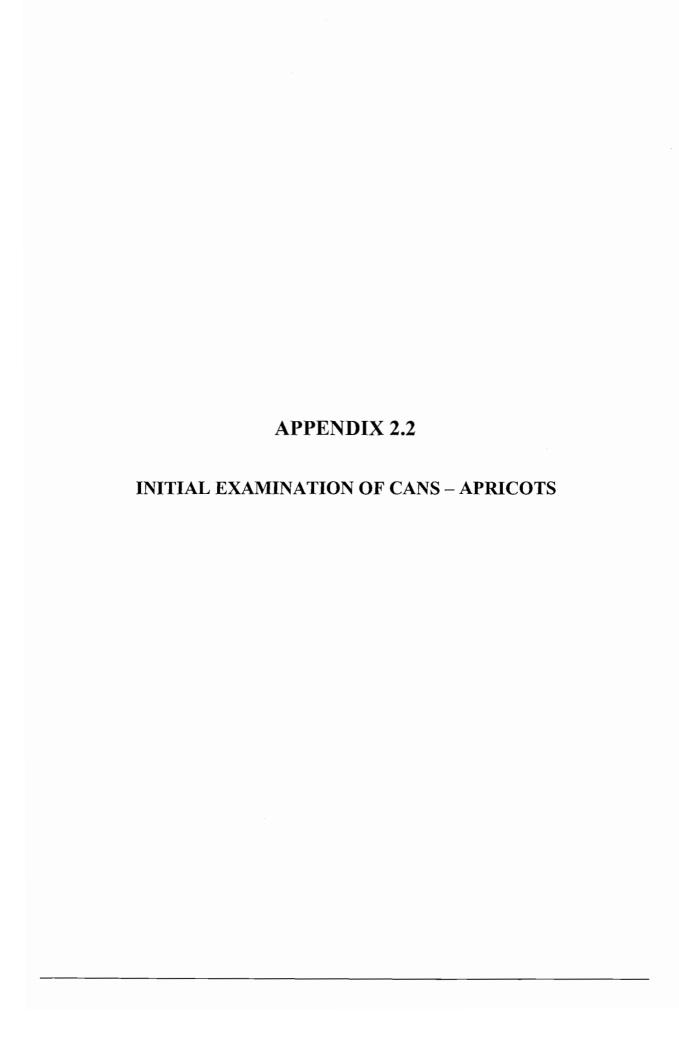
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	Ring	Pull																							^	^	^								×
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	3 Piece	Soldered		×	×					×												×									×				
Construction	3 Piece	Welded	×			×	×	×	×		×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×		×	×	×	×
		2 Piece																																	
	Sample	No.	034	035	036	037	038	039	040	041	042	043	044	042	046	047	048	049	020	051	052	053	054	055	026	057	058	026	090	061	062	063	064	065	990

	Ring	Pull	-																																
Finish	Neither	Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One	Plain																																	
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Finish	Partially	Plain	×	×				×	×					×	×						×			×			×	×	×						×
Body Internal Finish	Fully	Plain				×	×			×	×		×				×	×	×	×			×		×	×				×		×	×	×	
Body	Fully	Lacquered			×	,						×				×						×									×				
	3 Piece	Soldered			×											×						×									×				
Construction	3 Piece	Welded	×	×		×	×	×	×	×	×	×	×	×	×		×	×	×	×	×		×	×	×	×	×	×	×	×		×	×	×	×
	i	2 Piece																																	
	Sample	No.	067	890	690	020	071	072	073	074	075	920	077	078	020	080	081	082	083	084	085	980	087	088	680	060	091	092	093	094	095	960	260	860	660

Plain Pull	×	×		×	××	× × ×	× × × ×	× × × × ×					++++++	+++++++																			
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d Lacquered					×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×													
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_	Ring Pull	×									×		×																					
Finish	Neither Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One Plain																																	
End	Both Ends Plain																																	
Finish	Partially Plain			×								×					×				×													
Body Internal Finish	Fully Plain	×	×			×			×	×				X		×			×	×		×	×			×	×	×	X	X	×	×	×	×
Body	Fully Lacquered				×		×				×		×		×			×						×	×									
	3 Piece Soldered				×										×			×						×	×									
Construction	3 Piece Welded	×	×	×		×	×	×	×	×	×	×	×	×		×	×		×	×	×	×	×			×	×	×	×	×	×	×	×	×
	2 Piece																																	
	Sample No.	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165

Sample	Can Internal Condition
No.	Moderate-heavy etching.
035	De-tinned along side seam. Lacquer mottled in appearance and some corrosion spots on body. Average condition.
036	De-tinning along side seam. Lacquer intact.
037	Light, patchy etching of tinplate surface. Good condition.
038	No visible problems.
039	Moderate etching of tinplate surface.
040	Very large tin crystal size. Light/moderate etching, slight waterline corrosion. Good condition.
041	Exposed metal on side seam. Lacquer intact.
042	Light etching, bright. No problems. Very good condition.
043	Light etching, more pronounced where fruit in contact with tinplate. Large tin crystal size. Good/average condition.
044	No visible defects.
045	Some waterline corrosion. Moderate, slightly uneven etching.
046	Light even etching. Good condition.
047	Light etching. Good condition. Slight evidence of headspace corrosion.
048	Moderate-heavy etching. One area of de-tinning.
049	Moderate etching. Noticeable waterline de-tinning.
020	No visible problems.
051	Light-moderate etching.
052	Moderate-heavy etching, evenly over tinplate surface.
053	Some exposed metal on side seam. Some corrosion spots on body.
054	Light/moderate etching. Slight waterline corrosion. Good/average condition.
055	Moderate etching, slightly uneven.
020	Light etching, patchy. Good/average condition.
057	Even etching. Good condition.
058	No visible defects.
028	Moderate etching, quite dull. Slight waterline corrosion.
090	Light, even etching. Good condition.
061	Corrosion spots through lacquer. Localised corrosion in headspace at side seam.
062	Exposed metal on side seam. Lacquer intact.
063	Even, light-moderate etching.
064	Severe waterline corrosion to approximately 1cm into product. Light/moderate etching of tinplate overall.
065	No visible defects.
990	Even, moderate etching. Patch (2 x 1cm) of de-tinning in headspace area of can.

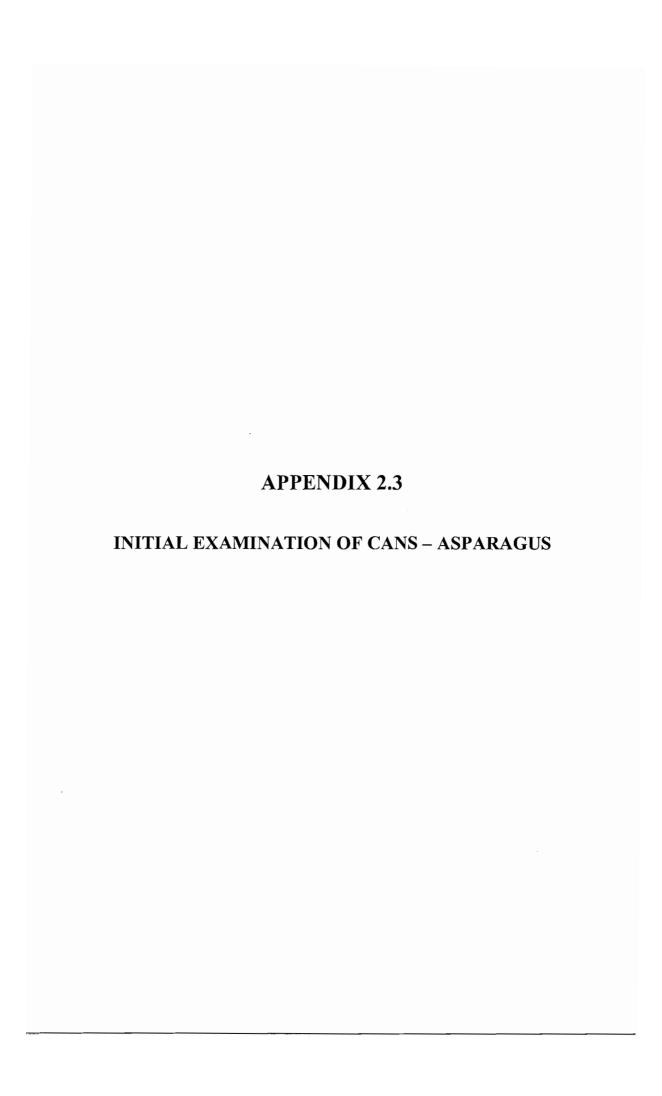


Net Weight (g) 411 420 410 300 411 411 411 411 411 411 411 411 410 420 420 420 420 420 420 420 420 420 42		Price	0.55	0.75	0.65	0.62	0.79	0.55	0.73	0.63	0.53	0.55	0.79	0.76	0.65	0.62	0.62	0.83	0.59	0.37	0.55	0.53	de) 0.79	
and Apricot Juice		Ingredients Listed	Apricot Halves, Grape Juice	Apricots, Water, Glucose, Syrup	Apricots, Grape Juice, Citric Acid	Apricots, Water, Sugar	Dried Apricots, Apple Juice	Apricot, Grape Juice	Apricots, Water, Sugar	Apricots, Water, Apricot Puree, Concentrated Apple Juice	Apricot Halves, Water, Sugar	Apricot Halves, Grape Juice	Dried Apricots, Apple Juice	Apricot Halves, Water, Sugar	Apricots, Grape Juice, Citric Acid	Apricot Halves, Water, Sugar, Acidity Regulator (Citric Acid)	Apricots, Water, Sugar	Apricots, Water, Syrup, Sugar, Glucose Syrup	Apricots, Water, Sugar	Peeled Apricot Halves, Grape Juice	Apricot Halves, Water, Sugar	Apricots, Water, Sugar, Glucose Syrup	Apple Juice, Whole Dried Apricots (With Preservative: Sulphur Dioxide)	
and Apricot Juice	Net	Weight	Т				300													225				
			Apricot Halves in Fruit Juice	Peeled Apricot Halves in Syrup	Apricot Halves in Fruit Juice	Peeled Apricot Halves in Syrup	Breakfast Apricots in Apple Juice	Apricot Halves in Grape Juice	Apricot Halves in Syrup	Apricot Halves in Apple Juice and Apricot Juice	Apricot Halves in Light Syrup	Apricot Halves in Fruit Juice	Breakfast Apricots in Apple Juice	Apricot Halves in Syrup	Apricot Halves in Fruit Juice	Apricot Halves in Light Syrup	Peeled Apricot Halves in Syrup	Peeled Apricot Halves in Syrup	Apricot Halves in Syrup	Apricot Halves in Juice	Apricot Halves in Light Syrup	Apricot Halves in Syrup	Breakfast Apricots in Apple Juice	

				Best			No. of Days	Full	Empty	Empty Contents		Gross		Tin
Sample	Country of	Place of	Date of	Before	Packing	Date Can	Old When	Weight	Weight	Weight	Vacuum	Headspace	Hd	Content
No.	Origin	Purchase	Purchase	Date	Date	Opened	Opened	(a)	(g)	(g)	(in. Hg)	Depth (mm)		(mg/kg)
700	E.U	Gloucestershire	18/06/98	66 սոր	13/06/97	29/06/98	381	474.69	54.29	420.40	9.0	9.4	3.39	138
800	South Africa	Gloucestershire	18/06/98	Jun 00	27/12/96	29/06/98	549	508.56	70.32	438.24	5.5	8.8	3.29	47
019	South Africa	Kidderminster	16/06/98	Dec 99	18/12/97	29/06/98	193	499.46	65.82	433.64	9.5	8.8	3.37	64
024	South Africa	Evesham	18/06/98	Dec 38	15/12/96	03/02/98	292	486.86	66.59	420.27	11.5	14.3	3.08	113
029	U.K.	Evesham	18/06/98	May 00	15/05/98	03/02/98	49	359.39	43.5	315.89	10.5	13.5	4.00	<5
037	South Africa	Kidderminster	16/06/98	Dec 99	11/12/97	03/07/98	204	499.06	66.38	432.68	11.0	8.8	3.34	69
043	Spain	Bredon	18/06/98	Dec 98	28/06/96	03/07/98	735	489.11	54.21	434.90	6.0	8.5	3.66	82
055	Spain	Bristol	25/06/98	00 Inc	26/90/90	03/02/98	392	482.11	53.7	428.41	7.5	5.1	4.38	107
090	Spain	Stoke	25/06/98	Dec 99	10/06/97	03/07/98	388	491.94	53.86	438.08	4.5	7.4	3.61	20
290	E.U.	Bristol	25/06/98	Jun 00	13/06/97	03/07/98	385	474.13	53.96	420.17	7.0	9.3	3.46	152
076	U.K.	Bristol	25/06/98	May 00	15/05/98	03/07/98	49	356.85	43.83	313.02	13.0	13.2	4.15	<5
083	South Africa	Bristol	01/07/98	Jan 00	19/12/96	03/02/98	561	511.07	68.01	443.06	9.0	9.3	3.17	93
060	South Africa	Bristol	01/07/98	Dec 99	19/12/97	03/07/98	196	498.70	90.99	432.64	10.0	9.1	3.43	28
094	South Africa	Bristol	01/07/98	Dec 00	02/12/97	03/07/98	213	487.54	66.32	421.22	17.0	11.2	3.71	46
100	South Africa	Bristol	01/07/98	Dec 38	20/12/96	03/07/98	260	490.57	68.26	422.31	14.5	13.1	3.51	84
106	South Africa	Grimsby	04/07/98	Jun 00	29/12/96	03/02/98	551	508.36	72.05	436.31	7.0	10.4	3.32	93
112	South Africa	Cleethorpes	04/07/98	Dec 00	21/11/97	03/07/98	224	491.54	62.09	424.45	13.0	13.2	2.93	88
116	South Africa	Cleethorpes	04/07/98	Dec 38	26/12/96	03/07/98	554	274.81	47.08	227.73	13.0	9.3	3.19	160
124	Spain	Grimsby	04/07/98	Jun 99	26/06/96	03/07/98	737	486.43	54.08	432.35	8.0	9.2	3.58	77
133	South Africa	Louth	04/07/98	Jun 01	22/11/97	06/07/98	226	284.54	48.13	236.41	9.5	6.4	3.52	53
144	U.K.	Grimsby	04/07/98	May 00	05/05/98	07/07/98	63	363.52	45.79	317.73	8.5	11.2	4.11	\$
151	South Africa	Grimsby	04/07/98	Dec 38	02/05/96	07/07/98	796	492.38	68.57	423.81	13.0	10.1	3.32	20

	Ring	Pull		×														×				×	×	
Finish	Neither	Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One	Plain																						
End	Both Ends	Plain																						
Finish	Partially	Plain							X	X	X	×									X			
Body Internal Finish	Fully	Plain	×	×	×	×		×						×	×	×	X	×	×	×		×		×
Body	Fully	Lacquered					×						×										×	
	3 Piece	Soldered																						
Construction	3 Piece	Welded	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
		2 Piece																						
	Sample	No.	005	800	019	024	029	037	043	055	090	290	920	083	060	094	100	106	112	116	124	133	144	151

Sample No.	Can Internal Condition
005	Light-moderate etching. Good condition.
800	Moderate etching.
019	Small tin crystal size; light etching.
024	Very small tin crystal size. Moderate etching with slight signs of waterline corrosion.
029	No visible problems.
037	Light, patchy etching of tinplate surface. Good condition.
043	Light etching, more pronounced where fruit in contact with tinplate. Large tin crystal size. Good/average condition.
055	Moderate etching, slightly uneven.
090	Light, even etching. Good condition.
290	Moderate-heavy etching over whole can body. Average condition.
920	No visible defects.
083	Moderate-heavy etching. Small tin crystal size.
060	Light-moderate etching. Small tin crystal size.
094	Light-moderate etching.
100	Moderate-heavy etching. Very slight waterline mark.
106	Average condition with patchy etching where fruit in contact with can.
112	Slight waterline mark. Moderate etching.
116	Moderate-heavy, even etching. Very small crystal size.
124	Light/moderate etching, large crystal size. Good condition overall.
133	Light etching. Tin coating lines visible.
144	No visible defects.
151	Light-medium etching. Small tin crystal size.





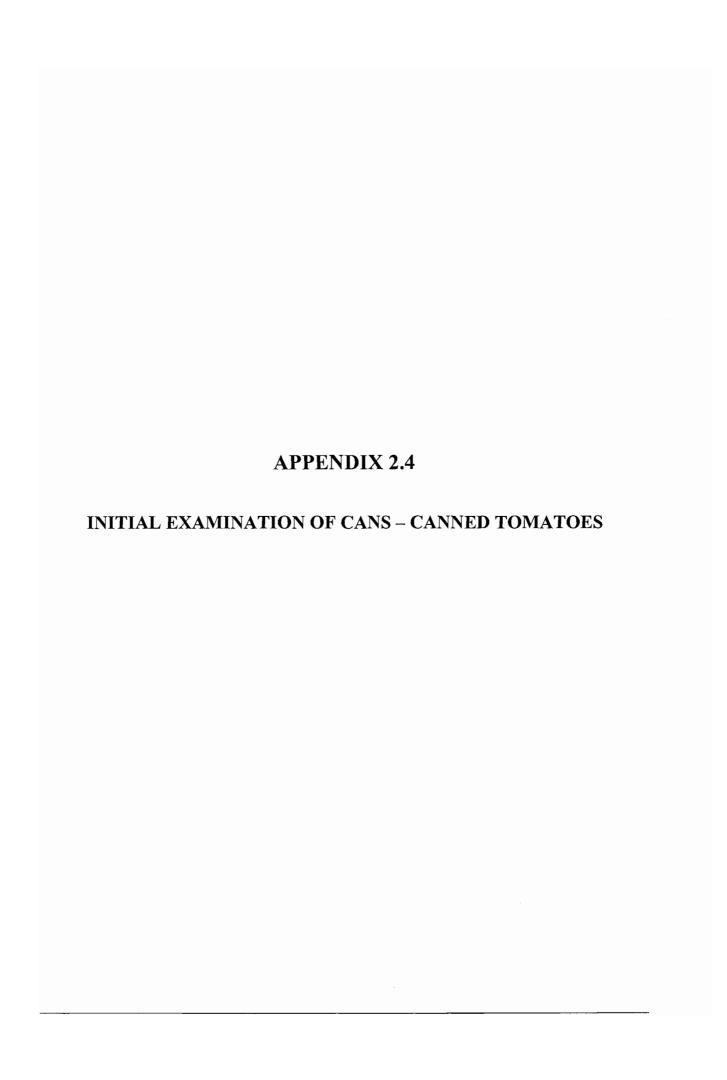
ASPARAGUS

Φ	Product Whole Green Asparagus Spears Asparagus Spears in Brine Asparagus Spears Green Asparagus Spears in Salted Water Cut Green Asparagus Spears Asparagus Spears Asparagus Spears Asparagus Spears	(g) 340 340 340 425 425 425 425 425 425	Whole Green Asparagus Spears, Salt, Water 1 Asparagus, Water Salt Asparagus, Water, Salt Asparagus, Water, Salt Cut Asparagus Spears, Salt, Water Asparagus, Water, Salt	Price (£) 1.59
	e Green Asparagus Spears agus Spears in Brine agus Spears Asparagus Spears in Salted Water reen Asparagus Spears agus Spears in Brine agus Spears in Brine			(£)
	e Green Asparagus Spears agus Spears in Brine agus Spears Asparagus Spears in Salted Water reen Asparagus Spears agus Spears in Brine agus Spears			.59
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	Asparagus Spears in Salted Water reen Asparagus Spears agus Spears in Brine agus Spears		ater	1.75
	reen Asparagus Spears agus Spears in Brine agus Spears		ater	1.99
	agus Spears in Brine agus Spears			60.
	agus Spears			1.37
				1.99
	Asparagus Cuts and Tips in Brine			0.99
_	Asparagus Cuts and Tips in Brine	425	Asparagus, Water, Salt	0.97
USD ASpare	Asparagus Spears	425	Asparagus Spears, Water, Salt	2.09
103 Aspara	Asparagus Spears	425	Asparagus Spears, Water, Salt	2.05
113 Aspara	Asparagus Spears	425	Asparagus Spears, Water, Salt	1.99
118 Aspara	Asparagus Cut Spears	411	Asparagus Spears, Water, Salt 0	0.95
125 Aspara	Asparagus Spears	425	Asparagus Spears, Water, Salt	-36
131 Cut As	Cut Asparagus Spears	298	Cut Asparagus Spears, Water, Salt	1.15
136 Aspara	Asparagus Cuts and Tips in Brine	425	Asparagus, Water, Salt	1.09
146 Whole	Whole Green Asparagus Spears	340	Whole Green Asparagus Spears, Water, Salt 1	1.59
149 Aspara	Asparagus Spears in Brine	340	Asparagus, Water, Salt	1.62
155 Green	Green Asparagus Spears in Salted Water	340	Asparagus, Water, Salt	1.99
156 Aspara	Asparagus Spears	425	Asparagus Spears, Water, Salt	1.99

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igin Purchase Purchase A Kidderminster 16/06/98 A Evesham 19/06/98 A Bredon 18/06/98 A Stoke 25/06/98 A Stoke 25/06/98 Bristol 25/06/98 A Bristol 25/06/98 A Bristol 01/07/98 Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98	PEIOLE	Packing	Date Can	Old When	Weight	Weight	Weight	Vacuum	Headspace	H	Content
A Kidderminster 16/06/98 A Evesham 19/06/98 Kidderminster 16/06/98 A Bredon 18/06/98 A Stoke 25/06/98 Bristol 25/06/98 25/06/98 A Bristol 25/06/98 A Bristol 01/07/98 Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98	Date	Date	Opened	Opened	(g)	(a)	(b)	(in. Hg)	Depth (mm)		(mg/kg)
4 Evesham 19/06/98 Kidderminster 16/06/98 A Bredon 18/06/98 A Stoke 25/06/98 Bristol 25/06/98 A Bristol 25/06/98 A Bristol 01/07/98 Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98	99 unf	16/02/97	29/06/98	409	414.46	61.66	352.80	5.0	8.7	5.26	131
Kidderminster 16/06/98 A Bredon 18/06/98 A Bristol 25/06/98 Bristol 25/06/98 A. Bristol 25/06/98 A. Bristol 01/07/98 Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98	Jun 00	18/06/97	03/07/98	380	404.27	62.37	341.90	6.5	12.1	5.19	139
Bristol 25/06/98 Stoke 25/06/98 Stoke 25/06/98 Bristol 25/06/98 Bristol 25/06/98 Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98 Cleethorpes 04/07/98	Nov 99	26/60/60	03/07/98	297	516.27	71.78	444.49	9.0	7.4	5.09	103
A Stoke 25/06/98 A Stoke 25/06/98 Bristol 25/06/98 A Bristol 25/06/98 Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98	Jun 99	03/05/97	03/07/98	426	414.42	62.97	351.45	7.5	9.1	5.27	147
A. Stoke 25/06/98 A. Bristol 25/06/98 A. Bristol 01/07/98 Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98	Jun 99	19/06/97	03/07/98	379	500.28	70.61	429.67	9.5	13.1	5.30	38
A. Bristol 25/06/98 A. Bristol 25/06/98 Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98	Jun 00	26/90/80	03/07/98	395	418.34	67.55	350.79	15.5	10.4	5.22	110
L. Bristol 25/06/98 A. Bristol 01/07/98 Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98	Nov 99	25/09/97	03/07/98	281	518.41	71.59	446.82	0.9	7.4	5.22	106
U.S.A. Bristol 01/07/98 Peru Bristol 01/07/98 Peru Bristol 01/07/98 Peru Cleethorpes 04/07/98	Jun 00	17/06/97	03/07/98	381	504.18	70.99	433.19	6.5	6.2	4.37	47
Bristol 01/07/98 Bristol 01/07/98 Cleethorpes 04/07/98	Jun 00	18/06/97	03/07/98	380	502.69	69.93	432.76	10.5	6.2	5.13	92
Bristol 01/07/98 Cleethorpes 04/07/98	Nov 99	19/09/97	03/0/198	287	514.23	72.68	441.55	8.0	11.5	5.43	91
Cleethorpes 04/07/98	Nov 99	15/06/97	03/07/98	383	512.87	72.39	440.48	12.0	9.3	5.19	120
00/20/10	Nov 99	17/06/97	03/07/98	381	514.29	72.42	441.87	9.5	8.3	5.18	113
U.S.A. Cleemorpes 04/07/98	Jun 99	04/06/97	03/07/98	394	484.26	69.54	414.72	13.0	10.1	5.28	20
Peru Grimsby 04/07/98	Nov 99	18/02/97	03/02/98	411	517.57	72.86	444.71	7.0	8.2	4.16	137
U.S.A. Louth 04/07/98	Nov 98	13/06/96	06/07/98	753	360.98	51.87	309.11	9.5	6.1	5.48	107
U.S.A. Louth 04/07/98	Jun 00	17/06/97	86/20/90	384	508.96	98.69	439.10	4.5	5.1	5.45	80
U.S.A. Grimsby 04/07/98	Jun 99	05/06/97	86/20/20	397	407.78	62.46	345.32	6.5	12.4	5.41	172
U.S.A. Grimsby 04/07/98	Jun 00	25/06/97	07/07/98	377	412.02	62.15	349.87	7.5	9.1	5.33	138
155 U.S.A. Chipping Campden 23/07/98	Jun 99	26/90/60	27/07/98	444	414.71	61.91	352.80	5.0	8.4	5.54	160
156 Peru Worcester 08/01/98	Nov 99	29/10/97	04/08/98	279	520.86	72.87	447.99	6.5	7.4	5.37	126

_			_	_	_			_			_	_										_
	Ring	Pull																				
Finish	Neither	Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One	Plain																				
End	Both Ends	Plain																				
Finish	Partially	Plain												×								
Body Internal Finish	Fully	Plain																				
Body	Fully	Lacquered	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×
	3 Piece	Soldered	×	×	×	×	×	×	×	×	X	X	×	×	×	×	×	×	×	×	×	×
Construction	3 Piece	Welded																				
		2 Piece																				
	Sample	No.	011	035	980	041	053	062	690	080	980	095	103	113	118	125	131	136	146	149	155	156

ASPARAGUS





		Net		
Sample No.	Product	Weight (g)	Ingredients Listed	Price (£)
100	Chopped Tomatoes	400	Tomatoes, Tomato Juice, Citric Acid	0.17
900	Thick Cut Chopped Tomatoes	400	Chopped Tomatoes, Concentrated Tomato Juice, Salt, Citric Acid	0.26
600	Peeled Plum Tomatoes	400	Tomatoes, Tomato Juice, Citric Acid	0.11
013	Premium Peeled Plum Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.29
014	Peeled Plum Tomatoes in Rich Tomato Juice	800	Tomatoes, Tomato Juice, Citric Acid	0.59
015	Peeled Plum Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice, Citric Acid	60.0
016	Chopped Tomatoes in Tomato Juice	400	Peeled Chopped Tomatoes, Tomato Juice, Acidity Regulator, Citric Acid	0.15
020	Chopped Tomatoes with Herbs in Tomato Juice	230	Chopped Tomatoes, Tomato Juice, Salt, Oregano, Basil	0.26
022	Peeled Plum Tomatoes in Tomato Juice	397	Tomatoes, Tomato Juice, Citric Acid	0.11
027	Cherry Tomatoes in Natural Tomato Juice	400	Unpeeled Cherry Tomatoes, Tomato Juice, Citric Acid	0.39
028	Peeled Plum Tomatoes in Tomato Juice	800	Tomatoes, Tomato Juice, Citric Acid	0.35
031	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.11
032	Chopped Tomatoes	400	Tomatoes, Concentrated Tomato Juice, Salt	0.34
034	Chopped Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice, Citric Acid	0.16
038	Chopped Tomatoes with Basil	400	See Appendix 2.8, Note 7	0.35
039	Chopped Tomatoes with Herbs in Tomato Juice	268	Tomatoes, Tomato Juice, Salt, Dried Basil, Dried Oregano	0.29
042	Peeled Plum Tomatoes in Tomato Juice	227	Peeled Tomatoes, Tomato Juice, Citric Acid	0.29
046	Premium Italian Peeled Plum Tomatoes	400	Italian Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.29
047	Peeled Plum Tomatoes in Tomato Juice	227	Tomatoes, Tomato Juice, Citric Acid	0.27
051	Premium Italian Peeled Plum Tomatoes	400	Italian Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.29
056	Cherry Tomatoes in Tomato Juice	400	Cherry Tomatoes, Tomato Juice, Citric Acid	0.39
057	Chopped Tomatoes with Basil in Tomato Juice	400	See Appendix 2.8, Note 12	0.35
058	Chair de Tomato	200	Tomatoes, Tomato Puree, Modified Corn Starch, Sugar, Salt, Citric Acid	0.29
061	Chopped Tomatoes with Onion in Tomato Juice	400	Chopped Peeled Tomatoes, Tomato Juice, Onions, Citric Acid	0.27
063	Chopped Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice, Citric Acid	0.15
990	Hand Picked Plum Tomatoes	400	Tomatoes, Concentrated Tomato Juice, Salt, Citric Acid	0.25
072	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes, Tomato Juice, Citric Acid	0.34

	Ingredients Listed	
Weight (g)		Price (£)
	Tomatoes, Tomato Juice, Citric Acid	0.27
220	Tomatoes, Concentrated Tomato Juice, Citric Acid	0.25
793 T	Tomatoes, Tomato Juice, Citric Acid	0.45
400 T	Tomatoes, Tomato Juice, Citric Acid	0.38
230	Chopped Tomatoes, Tomato Juice, Salt, Oregano, Basil	0.26
400 T	Tomatoes, Tomato Juice, Citric Acid	0.12
400 T	Tomatoes, Tomato Juice, Acidity Regulator (Citric Acid)	0.30
400 T	Tomatoes, Tomato Juice, Citric Acid	0.11
800	Tomatoes, Tomato Juice	0.39
227	Tomatoes, Tomato Juice, Citric Acid	0.27
400 F	Peeled Tomatoes, Tomato Juice	0.78
400 T	Tomatoes, Tomato Juice, Citric Acid	0.11
793 T	Tomatoes, Tomato Juice, Citric Acid	0.45
400 C	Chopped Tomatoes, Tomato Juice	0.33
220 C	Chopped Tomatoes, Tomato Juice, Citric Acid	0.24
400	Italian Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.29
400 T	Tomatoes, Tomato Juice, Citric Acid	0.17
400 T	Tomatoes, Concentrated Tomato Juice, Salt, Citric Acid	0.25
400 F	Peeled Tomatoes, Tomato Juice	0.32
400 T	Tomatoes, Tomato Juice, Citric Acid	0.11
400	See Appendix 2.8, Note 27	0.87
400 T	Tomatoes, Tomato Juice, Citric Acid	0.11
400 C	Chopped Tomatoes in Tomato Juice	0.69
400	Tomatoes, Tomato Juice, Citric Acid	0.11
400 C	Chopped Tomatoes, Tomato Juice, Citric Acid	0.30
800 T	Tomatoes, Tomato Juice, Citric Acid	0.60
[0] [4] [4] [4] [4] [4] [5] [5] [4] [6] [6] [6] [6] [6] [7] [6] [7] [7] [7] [7] [7] [7] [7] [7] [7] [7		Tomatoes, Tomato Juice, Citric Acid Tomatoes, Concentrated Tomato Juice, Tomatoes, Tomato Juice, Citric Acid Tomatoes, Tomato Juice, Citric Acid Chopped Tomatoes, Tomato Juice, Citric Acid Chopped Tomatoes, Tomato Juice Chopped Tomatoes, Tomato Juice Chopped Tomatoes, Tomato Juice, Citri Italian Peeled Plum Tomatoes, Tomato Tomatoes, Tomato Juice, Citric Acid Tomatoes, Tomato Juice, Citric Acid Tomatoes, Tomato Juice, Citric Acid See Appendix 2.8, Note 27 Tomatoes, Tomato Juice, Citric Acid Chopped Tomatoes in Tomato Juice Tomatoes, Tomato Juice, Citric Acid Chopped Tomatoes in Tomato Juice, Citric Acid Chopped Tomatoes, Tomato Juice, Citric Acid

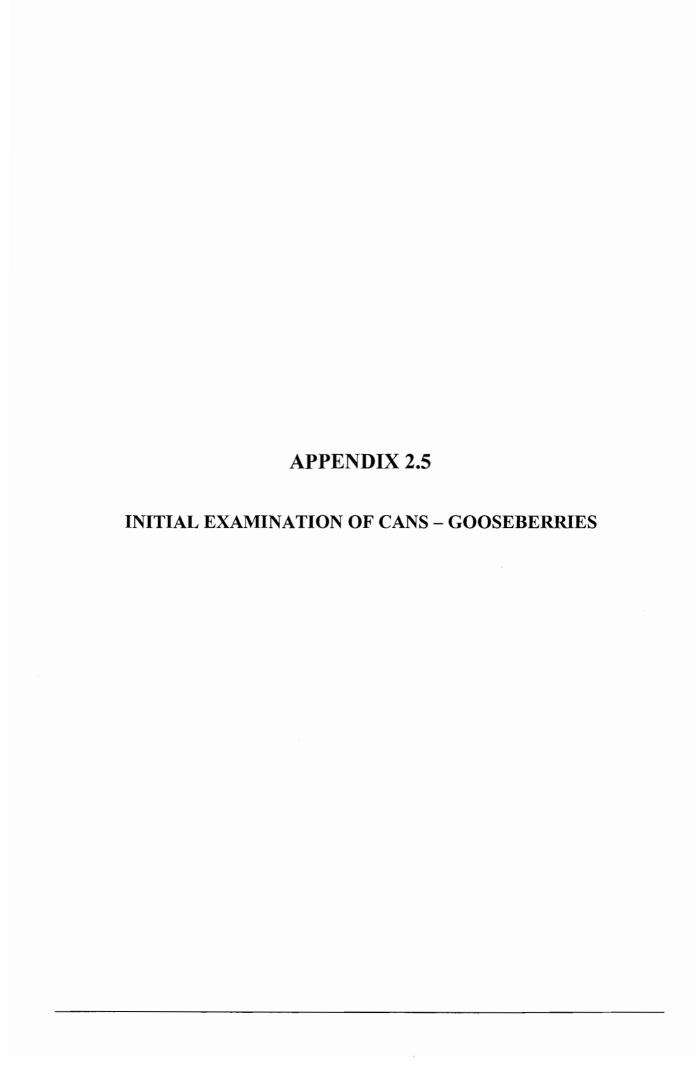
				Best	_		No. of Days	Full	Empty	Empty Contents		Gross		Tin
Sample	Country of	Place of	Date of	Before	Packing	Date Can	Old When	Weight	Weight	Weight	Vacuum	Headspace	Hd	Content
No.	Origin	Purchase	Purchase	Date	Date	Opened	Opened	(g)	(g)	(g)	(in. Hg)	Depth (mm)		(mg/kg)
100	Italy	Gloucestershire	18/06/98	Dec 99	21/08/97	29/06/98	312	470.56	51.72	418.84	6.5	6.5	4.08	101
900	Italy	Gloucestershire	18/06/98	Dec 99	18/08/97	29/06/98	315	457.45	55.81	401.64	6.5	9.7	4.12	103
600	Italy	Kidderminster	16/06/98	Sep 99	01/09/97	29/06/98	301	463.67	52.95	410.72	3.0	7.05	4.45	63
013	Italy	Kidderminster	16/06/98	Sep 99	02/09/97	29/06/98	300	462.04	54.72	407.32	3.5	6.9	4.38	103
014	italy	Kidderminster	16/06/98	Dec 99	23/08/97	29/06/98	310	917.80	88.27	829.53	5.5	8.1	4.36	81
015	Italy	Kidderminster	16/06/98	Dec 99	20/08/97	29/06/98	313	467.05	50.86	416.19	2.5	5.8	4.11	
016	Italy	Kidderminster	16/06/98	Feb 00	20/09/97	29/06/98	282	466.75	49.59	417.16	4.0	8.6	4.25	194
020	italy	Kidderminster	16/06/98	Sep 99	28/08/97	29/06/98	305	280.29	37.88	242.41	0.9	6.2	3.99	51
022		Kidderminster	16/06/98	Feb 00	01/09/97	03/07/98	305	468.82	50.8	418.02	5.0	6.1	4.36	137
027	Italy	Evesham	18/06/98	1999	30/08/97	03/07/98	307	478.85	50.36	428.49	2.0	0.9	4.19	80
028	Italy	Evesham	18/06/98	Oct 99	01/09/96	03/07/98	029	921.97	96.23	825.74	4.5	7.1	4.00	92
031	Italy	Evesham	18/06/98	Sep 99	20/08/97	03/07/98	317	478.15	52.48	425.67	2.0	5.2	4.35	34
032	Italy	Evesham	18/06/98	Sep 99	29/08/97	03/07/98	308	460.24	55.11	405.13	10.5	10.1	4.03	97
034	Italy	Evesham	19/06/98	1999	26/60/90	03/07/98	300	451.33	48.94	402.39	0.9	10.3	4.29	20
860	Italy	Kidderminster	16/06/98	Oct 00	02/09/97	03/07/98	304	456.60	61.37	395.23	16.0	12	4.16	2
680	Italy	Kidderminster	16/06/98	Sep 99	19/08/97	86/20/80	310	462.61	99.09	411.95	7.5	2.6	4.19	176
042		Bredon	18/06/98	1999	20/09/97	03/02/98	286	277.63	38.09	239.54	3.0	0.9	4.20	110
046	Italy	Kidderminster	16/06/98	Nov 98	27/08/97	03/07/98	310	477.10	50.92	426.18	1.5	5.7	4.33	104
047	Italy	Bredon	18/06/98	Feb 00	21/07/97	03/07/98	347	277.92	37.29	240.63	2.0	5.3	4.40	145
051	Italy	Bristol	25/06/98	Nov 98	27/08/97	03/07/98	183	448.48	50.49	397.99	4.5	10.1	4.46	129
020	Italy	Bristol	25/06/98	Dec 38	01/08/97	03/07/98	336	482.28	55.47	426.81	5.5	8.1	3.33	115
250	Italy	Bristol	25/06/98	Aug 99	04/09/97	03/07/98	302	464.33	55.34	408.99	7.0	10.4	4.11	135
850	France	Bristol	25/06/98	Aug 00	30/08/97	03/02/98	307	245.53	40.66	204.87	14.5	10.2	4.19	<5
061	Italy	Stoke	25/06/98	1999	19/09/97	03/07/98	287	460.13	50.85	409.28	7.0	10.1	4.26	7
690	Italy	Stoke	25/06/98	1999	23/08/96	03/07/98	629	473.01	51.62	421.39	3.5	6.2	4.34	92
990	Italy	Bristol	25/06/98	Dec 99	18/08/97	03/07/98	319	481.81	55.47	426.34	4.0	10.2	4.36	151
072	Italy	Bristol	25/06/98	Feb 00	01/08/97	03/07/98	336	463.07	53.05	410.05	7.0	12.2	4.23	86

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	Ring Pull		×		×									×								×	×	×			×	
Finish	Neither Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One Plain																											
End	Both Ends Plain																											
Finish	Partially Plain			×	×	×	×	×	×	X	X	×		×			×	×	×	×	×	×	×			×		×
Body Internal	Fully Plain	×	×										×		×												×	
Body	Fully Lacquered															×								×	×			
	3 Piece Soldered																											
Construction	3 Piece Welded	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	2 Piece																											
	Sample No.	100	900	600	013	014	015	016	020	022	027	028	031	032	034	038	039	042	046	047	051	056	057	058	061	063	990	072

		_	_		_			_								-				_							_
	Ring Pull																		×					×			
Finish	Neither Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One Plain																										
End	Both Ends Plain		1																								
Finish	Partially Plain	×	×	×	×	×	×	X	×	×	X	×	×	X	X	×	×	X	X		×				×	X	×
Body Internal Finish	Fully Plain																						×				
Body	Fully Lacquered																			×		×		×			
	3 Piece Soldered																										
Construction	3 Piece Welded	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	2 Piece																										
	Sample No.	073	078	620	085	091	092	660	660	101	107	108	110	111	115	120	122	126	127	132	135	138	139	142	143	148	152

Sample No.	Can Internal Condition
001	Light, even etching over surface of can body. Good condition.
900	Light etching, more noticeable in headspace area
600	Good condition.
013	Light-moderate etching. Good condition.
014	Light-moderate etching. Good condition.
015	Light etching with possibly some de-tinning along beads.
016	Moderate-heavy etching with some de-tinning around beaded areas.
020	Light etching, quite bright.
022	Light etching. Generally good condition.
027	Light-moderate etching, slightly uneven.
028	Even, moderate etching of tinplate surface. Good/average condition.
031	Light, even etching. Good condition.
032	Moderate-heavy etching, very heavy in places.
034	Moderate-heavy etching.
038	No visible problems.
620	Moderate etching of tinplate surface.
042	Light etching, bright. No problems. Very good condition.
046	Light even etching. Good condition.
047	Light etching. Good condition. Slight evidence of headspace corrosion.
051	Light-medium etching.
020	Light etching, patchy. Good/average condition.
250	Even etching. Good condition.
058	No visible defects.
061	Corrosion spots through lacquer. Localised corrosion in headspace at side seam.
063	Even, light-moderate etching.
990	Even, moderate etching. Patch (2 x 1cm) of de-tinning in headspace area of can.
072	Light/moderate etching. Good/average condition.

Sample No.	Can Internal Condition
073	Moderate etching. Large tin crystal size.
078	Moderate etching with slight waterline corrosion.
620	Moderate etching, slightly uneven.
085	Moderate-heavy, uneven etching, slightly more noticeable in headspace.
091	Light grey etchings. Good condition.
092	Light/moderate etching. Good condition overall.
093	Light etching. Large tin crystal size. Good condition.
660	Light etching. Good condition.
101	Light-moderate etching.
107	Light, even etching. Good condition.
108	Light-moderate etching.
110	Light/moderate etching.
111	Even light/moderate etching. Some waterline corrosion but not excessive.
115	Light-moderate etching.
120	Bright tinplate. Good condition.
122	Light/moderate etching of surface, relatively bright.
126	Light etching, very slight signs of waterline corrosion.
127	Light/moderate even etching. Good condition overall.
132	Lacquer sound. Some red mark visible from the tomatoes.
135	Light-moderate etching. Good-average condition.
138	Good condition, no visible defects.
139	Light etching. Waterline corrosion visible, not excessive. Tinplate quite bright. Average condition.
142	No visible defects
143	Light etching Good condition.
148	Even-moderate etching over tinplate surface.
152	Light etching.



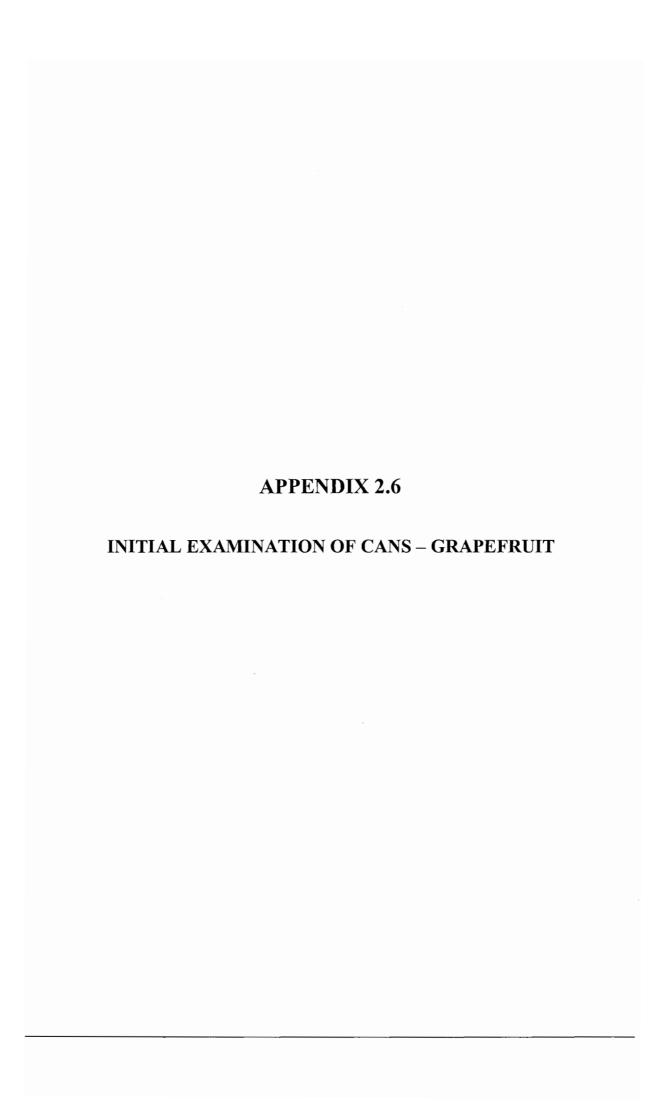


		Net		
Sample	Product	Weight	Ingredients Listed	Price
No.		(g)		(£)
400	Gooseberries in Light Syrup	300	Gooseberries, Water, Syrup	0.55
021	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
020	Gooseberries in Light Syrup	300	Gooseberries, Water, Sugar	0.55
082	Gooseberries in Syrup	300	Gooseberries, Water, Syrup	99.0
087	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
117	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.49
128	Gooseberries in Light Syrup	300	Gooseberries, Water, Sugar	0.55
134	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
141	Gooseberries in Syrup	300	Gooseberries, Water, Syrup	0.55
153	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
154	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.62
157	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
158	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
159	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.57
160	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.55
161	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
162	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.61
163	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
164	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.59
165	Gooseberries in Syrup	300	Gooseberries, Water, Sugar	0.49

				Best			No. of Days	Full	Empty	Empty Contents		Gross		Tin
Sample	Country of	Place of	Date of	Before	Packing	Date Can	Old When	Weight	Weight	Weight	Vacuum	Headspace	H	Content
No.	Origin	Purchase	Purchase	Date	Date	Opened	Opened	(a)	(a)	(g)	(in. Hg)	Depth (mm)	_	(mg/kg)
004	U.K	Gloucestershire	18/06/98	66 unր	18/06/97	29/06/98	376	362.20	42.450	319.75	2.0	7.4	2.92	132
021	U.K.	Kidderminster	16/06/98	May 00	12/05/98	03/07/98	52	369.91	42.18	327.73	6.5	7.1	2.91	103
020	U.K.	Bristol	25/06/98	Jun 99	18/06/97	03/07/98	380	359.92	42.71	317.21	3.0	7.2	3.01	86
082	U.K.	Bristol	01/07/98	Jun 99	19/06/97	03/07/98	379	369.65	43.12	326.53	3.5	6.3	3.02	104
087	U.K.	Bristol	01/07/98	May 00	12/05/98	03/07/98	52	359.22	42.54	316.68	11.5	9.1	3.03	131
117	U.K.	Cleethorpes	04/07/98	Jul 99	76/20/60	03/02/98	329	360.21	42.6	317.61	5.0	9.5	2.82	113
128	U.K.	Grimsby	04/07/98	Jun 99	18/06/97	03/07/98	380	367.88	42.55	325.33	3.5	5.1	2.95	113
134	U.K.	Louth	04/07/98	Jun 99	19/06/97	86/20/90	382	364.03	42.66	321.37	4.5	7.0	3.42	171
141	U.K.	Louth	04/07/98	Mar 00	24/03/98	07/07/98	105	364.14	47.43	316.71	10.0	8.5	2.98	114
153	U.K.	Grimsby	04/07/98	May 00	12/05/98	07/07/98	99	362.65	42.07	320.58	8.5	9.3	3.07	122
154	U.K.	Chipping Campden	23/07/98	Mar 00	24/03/98	27/07/98	125	363.67	42.83	320.84	8.5	8.4	3.44	142
157	U.K.	Evesham	25/07/98	Jun 00	29/06/98	04/08/98	36	365.66	42.67	322.99	10.5	7.1	3.05	66
158	U.K.	Evesham	08/10/98	Jun 00	29/06/98	27/08/98	69	360.14	41.63	318.51	4.0	9.2	3.35	82
159	U.K.	Wigan	86/80/80	Jun 00	29/06/98	27/08/98	29	364.16	42.21	321.95	3.5	7.1	3.29	103
160	U.K.	Evesham	15/08/98	Jun 00	29/06/98	18/08/98	20	364.45	41.99	322.46	5.5	7.3	2.96	61
161	U.K.	Evesham	15/08/98	Jun 00	29/06/98	18/08/98	20	358.95	42.47	316.48	4.0	8.4	3.03	87
162	U.K.	Evesham	15/08/98	May 00	12/05/98	18/08/98	86	365.45	42.8	322.65	7.5	7.2	2.99	108
163	U.K.	Stratford	15/08/98	Jun 00	29/06/98	18/08/98	50	359.09	41.91	317.18	4.5	8.5	3.02	103
164	U.K.	Hereford	13/08/98	Jun 00	29/06/98	18/08/98	20	360.37	42.05	318.32	5.5	8.4	3.15	87
165	U.K.	Coventry	20/08/98 Jul-99	Jul-99	09/07/97	25/08/98	412	363.02	42.84	320.18	3.5	9.1	3.01	114

	_	_											_		_		_					
	Ring	Pull				İ																
Finish	Neither	Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One	Plain																				
End	Both Ends	Plain																				
Finish	Partially	Plain																				
Body Internal Finish	Fully	Plain	X	×	X	X	X	X	X	X	X	X	X	×	X	×	X	X	×	×	X	X
Body	Fully	Lacquered																				
	3 Piece	Soldered																				
Construction	3 Piece	Welded	×	X	×	X	×	×	×	×	×	×	×	×	×	×	X	×	×	×	×	X
		2 Piece																				
	Sample	No.	400	021	020	082	087	117	128	134	141	153	154	157	158	159	160	161	162	163	164	165

Sample No.	Can Internal Condition
004	Light-moderate etching. A few spots of de-tinning.
021	Moderate etching with some spots of exposed baseplate. Moderate condition.
020	Moderate etching over can body.
082	Light-moderate etching. Good condition.
087	Moderate etching. Very slight waterline mark.
117	Moderate etching. Average condition.
128	Light/moderate even etching.
134	Light-moderate etching. Very slight headspace corrosion.
141	Moderate-heavy etching. Some evidence of waterline corrosion.
153	Moderate etching. Slight waterline corrosion.
154	Moderate etching, evenly over tinplate surface. Average condition, slight waterline corrosion.
157	Moderate etching, evenly over tinplate surface. Average condition, slight waterline corrosion.
158	Light-medium etching of tinplate surface. Slight waterline corrosion. Good condition.
159	Medium etching of tinplate surface. Very slight waterline corrosion. Average condition.
160	Moderate even etching.
161	Moderate etching. Some waterline corrosion.
162	Moderate etching of tinplate surface. Some de-tinned areas close to headspace.
163	Even etching of tinplate surface. Slight waterline corrosion. Average condition.
164	Moderate etching. Some waterline corrosion.
165	Medium etching of tinplate surface with slight waterline corrosion. Average condition overall.

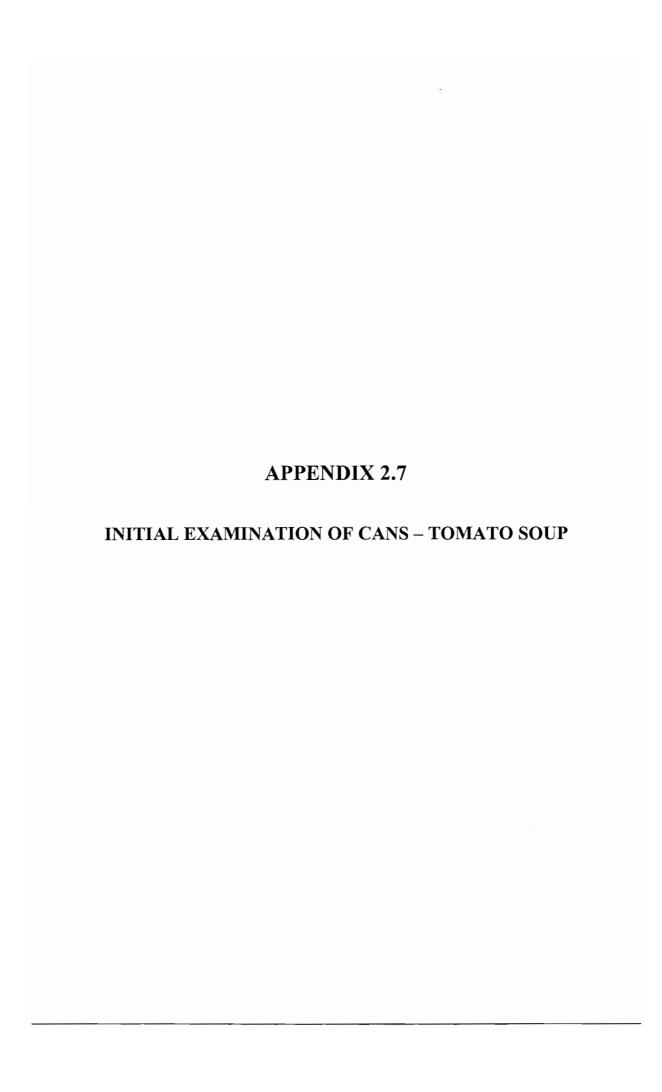




		Net		
Sample	Product	Weight	Ingredients Listed	Price
No.		(a)		(£)
003	Grapefruit Segments in Grapefruit Juice	285	Grapefruit, Grapefruit Juice	0.53
200	Grapefruit Pieces in Light Syrup	540	Grapefruit Pieces, Water, Sugar	0.47
012	Grapefruit Segments in Fruit Juice	411	Grapefruit, Grapefruit Juice	0.79
018	Grapefruit Segments in Syrup	540	Grapefruit Segments, Water, Sugar	0.49
025	Broken Grapefruit Segments in Syrup	540	Grapefruit Segments, Water, Sugar	0.55
030	Grapefruit Salad in Natural Juice	538	Ruby Red and White Grapefruit, Grapefruit Juice	0.63
040	Grapefruit Segments in Syrup	539	Grapefruit Segments, Water, Sugar	0.85
045	Grapefruit Segments (Red, Blush and White) in Syrup	540	Grapefruit Segments, Water, Sugar	0.99
049	Grapefruit Segments (Red, Blush and White) in Syrup	540	Grapefruit segments, Water, Sugar	66.0
054	Grapefruit Segments in Natural Juice	539	Grapefruit, Grapefruit Juice, Firming Agent: Calcium Chloride	0.72
064	Broken Grapefruit Segments in Syrup	539	Grapefruit Segments, Water, Sugar	0.48
890	Grapefruit Pieces in Light Syrup	540	Grapefruit Pieces, Water, Sugar	0.47
220	Grapefruit Segments on Natural Juice	220	Grapefruit Segments, Grapefruit Juice	0.41
081	Grapefruit and Orange Segments in Syrup	420	Citrus Fruit (Grapefruit, Orange), Water, Sugar	0.78
088	Grapefruit Sections in Grapefruit Juice	411	Grapefruit, Grapefruit Juice	69.0
680	Ruby Red Grapefruit Sections in Ruby Red Juice	539	Ruby Red Grapefruit, Ruby Red Grapefruit Juice	0.75
260	Grapefruit Segments in Fruit Juice	411	Grapefruit Segments, Grapefruit Juice	0.75
102	Broken Grapefruit Segments in Light Syrup	540	Grapefruit Segments, Water, Sugar	0.55
104	Grapefruit Segments in Fruit Juice	538	Grapefruit Segments, Grapefruit Juice	0.75
114	Ruby Red Grapefruit Segments in Juice	540	Ruby Red Grapefruit Segments and Juice, Calcium Chloride	0.59
123	Grapefruit Segments (Red, Blush and White) in Syrup	540	Grapefruit Segments, Water, Sugar	66.0
130	Ruby Red Grapefruit Segments in Grapefruit Juice	540	Ruby Red Grapefruit, Grapefruit Juice	0.75
140	Grapefruit Segments in Syrup	540	Grapefruit, Water, Syrup	69.0
147	Grapefruit Segments in Syrup	539	Grapefruit, Water, Sugar, Firming Agent, Calcium Chloride, Citric Acid	69.0
150	Grapefruit Segments in Grapefruit Juice	220	Grapefruit, Grapefruit Juice	0.42

Best
Date of Before P
Purchase Purchase Date Date
Gloucestershire 18/06/98 Jul 99 26/05/97
Gloucestershire 18/06/98 Dec 99 17/12/97
Kidderminster 16/06/98 Dec 99 15/07/97
Kidderminster 16/06/98 Jan 00 06/01/98
Evesham 18/06/98 Jan 00 17/02/98
Evesham 18/06/98 Dec 98 26/11/96
Bredon 18/06/98 Jun 99 19/11/96
Kidderminster 16/06/98 Aug 99 01/01/98
25/06/98 Aug 99 01/01/98
25/06/98 Dec 99 24/10/97
25/06/98 Jan 00 03/01/97
25/06/98 Dec 99 06/01/98
25/06/98 Aug 99 31/05/97
01/07/98 Dec 99 21/08/97
01/07/98 Apr 99 24/01/97
01/07/98 Apr 00 11/12/97
01/07/98 Jan 99 21/01/96
01/07/98 Mar 00 20/02/98
Grimsby 01/07/98 Dec 98 29/12/96
Cleethorpes 04/07/98 Apr 99 21/11/
Grimsby 04/07/98 Aug 99 01/01/98
04/07/98 Dec 98 14/06/96
04/07/98 Nov 99 28/11
Grimsby 04/07/98 Nov 99 26/11/
Grimsby 04/07/98 Aug 99 30/05

	77	_																									
	Ring	Pull																									
Finish	Neither	Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One	Plain																									
End	Both Ends	Plain																									
Finish	Partially	Plain			X	X	×			×	X	×	×	×			X			×	×		×				
Body Internal Finish	Fully	Plain	×	×				×	×						×	×		×	×			×		×	×	×	×
Body	Fully	Lacquered																									
	3 Piece	Soldered																									
Construction	3 Piece	Welded	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
		2 Piece																									
	Sample	No.	003	007	012	018	025	030	040	045	049	054	064	068	077	081	088	680	097	102	104	114	123	130	140	147	150



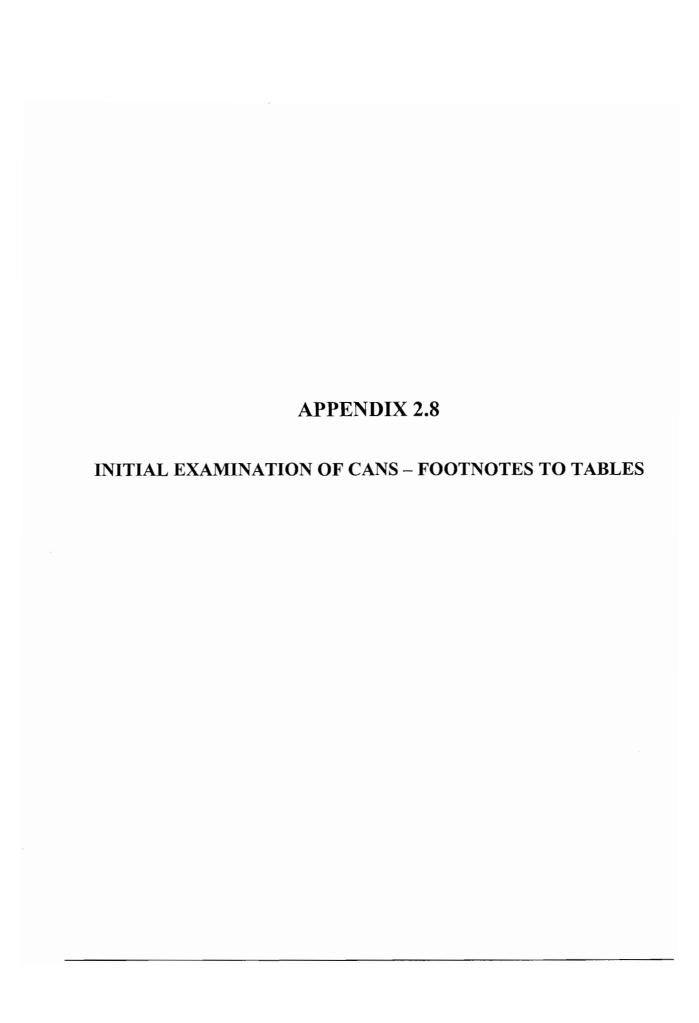


		Net		_
Sample	Product	Weight	Ingredients Listed	Price
No.		(a)		(£)
900	Cream of Tomato Soup	410	See Appendix 2.8, Note 1	0.39
010	Special Recipe Chunky Tomato & Vegetable Soup with Pasta	415	See Appendix 2.8, Note 2	0.79
017	Cream of Tomato Soup	400	See Appendix 2.8, Note 3	0.23
023	Cream of Tomato Soup	800	See Appendix 2.8, Note 4	0.79
026	Condensed Italian Tomato Soup with Basil	295	See Appendix 2.8, Note 5	0.64
033	Tomato Soup	410	See Appendix 2.8, Note 6	0.19
044	Tomato and Lentil Soup	425	See Appendix 2.8, Note 8	0.59
048	Condensed Cream of Tomato Soup	295	See Appendix 2.8, Note 9	0.67
020	Tomato and Herb Soup	425	See Appendix 2.8, Note 10	0.59
052	Cream of Tomato Soup	295	See Appendix 2.8, Note 11	0.35
028	Cream of Tomato Soup	410	See Appendix 2.8, Note 13	0.36
065	98% Fat Free Italian Tomato Soup with Basil	425	See Appendix 2.8, Note 14	0.79
071	Tomato Soup	295	See Appendix 2.8, Note 15	0.41
074	Cream of Tomato Soup	300	See Appendix 2.8, Note 16	0.48
075	Tomato and Orange Soup with Basil	425	See Appendix 2.8, Note 17	69.0
084	Tomato Soup	400	See Appendix 2.8, Note 18	0.19
960	Cream of Tomato Soup	800	See Appendix 2.8, Note 19	0.82
098	Cream of Tomato Soup	425	See Appendix 2.8, Note 20	0.43
105	Cream of Tomato Soup	800	See Appendix 2.8, Note 21	0.87
109	Virtually Fat Free Tomato, Vegetable and Rice Soup	290	See Appendix 2.8, Note 22	0.42
119	Cream of Tomato Soup	410	See Appendix 2.8, Note 23	0.39
121	Tomato and Lentil Soup	425	See Appendix 2.8, Note 24	0.59
129	Cream of Tomato Soup	400	See Appendix 2.8, Note 25	0.23
137	Cream of Tomato Soup	300	See Appendix 2.8, Note 26	0.41
145	Cream of Tomato Soup	009	See Appendix 2.8, Note 28	0.59

				Best			No. of Days	Full	Empty	Empty Contents		Gross		Tin
Sample	Country of	Place of	Date of	Before	Packing	Date Can	Old When	Weight	Weight	Weight	Vacuum	Headspace	H	Content
No.	Origin	Purchase	Purchase	Date	Date	Opened	Opened	(g)	(g)	(a)	(in. Hg)	Depth (mm)	·	(mg/kg)
005	U.K	Gloucestershire	18/06/98	Mar 00	16/03/97	29/06/98	470	461.50	49.78	411.72	11.0	12.1	3.82	43
010	U.K	Kidderminster	16/06/98	Sep 99	11/09/97	29/06/98	291	496.36	62.11	434.25	8.0	9.5	4.45	\$
017	U.K.	Kidderminster	16/06/98	May 00	05/05/98	29/06/98	22	457.53	50.77	406.76	9.0	12	4.06	83
023	U.K.	Kidderminster	16/06/98	Jan 99	23/10/97	86/20/80	253	910.781	108.99	801.79	14.5	14.7	4.0	123
026	U.K.	Evesham	18/06/98	Jan 00	09/01/98	86/20/80	175	340.87	40.64	300.23	7.5	13.7	4.00	<5
033	U.K.	Evesham	18/06/98	Apr 00	17/04/98	86/20/80	22	470.84	51.28	419.56	11.0	9.3	4.10	31
044	U.K.	Kidderminster	16/06/98	Jan 00	01/01/97	03/02/98	548	485.19	57.37	427.82	10.0	14.5	4.72	<5
048	U.K.	Bredon	18/06/98	Mar 00	16/03/98	03/0/198	109	337.56	40.07	297.49	8.5	16.3	3.86	165
020	U.K.	Bristol	25/06/98	Jan 00	01/01/97	03/02/98	548	497.58	57.65	439.93	11.0	9.8	4.08	\$
052	U.K.	Bristol	25/06/98	Oct 99	03/04/98	03/0/28	91	334.54	38.43	296.11	9.5	12.3	3.97	124
059	U.K.	Stoke	25/06/98	Dec 99	17/12/97	03/02/98	198	469.23	54.47	414.76	9.0	10.5	4.26	123
065	U.K.	Bristol	25/06/98	Jul 00	13/01/98	03/02/98	171	457.38	60.47	396.91	10.5	14.2	5.22	~ 5
071	U.K.	Bristol	25/06/98	Sep 99	11/05/98	03/07/98	53	342.26	43.99	298.27	10.5	11.1	4.19	98
074	U.K.	Bristol	25/06/98	Aug 99	26/02/98	03/07/98	38	346.29	44.00	302.29	13.0	10.1	4.23	83
075	U.K.	Bristol	25/06/98	Mar 00	26/60/80	03/0/28	298	492.41	60.15	432.26	12.0	13.1	4.41	100
084	U.K.	Bristol	01/07/98	Mar 00	27/03/98	03/07/98	86	464.89	50.09	414.80	8.5	11.1	4.07	22
960	U.K.	Bristol	01/07/98	May 99	29/11/97	03/07/98	216	917.73	107.96	809.77	13.5	14.5	4.55	103
098	U.K.	Bristol	01/07/98	Jan 00	20/01/98	03/07/98	164	488.29	56.58	431.71	9.5	13.1	4.34	105
105	U.K.	Grimsby	01/07/98	Jul 99	12/05/98	86/20/80	25	917.25	108.38	808.87	12.5	14.1	4.16	109
109	U.K.	Cleethorpes	04/07/98	May 00	19/05/98	03/07/98	45	333.88	38.25	295.63	7.5	12.3	4.52	43
119	U.K.	Cleethorpes	04/07/98	Jun 99	14/12/97	03/0/198	201	469.99	50.56	419.43	8.5	8.2	3.96	\$ \$
121	U.K.	Grimsby	04/07/98	Dec 38	01/12/96	03/07/98	629	483.92	56.86	427.06	11.0	13.3	4.84	~ 5
129	U.K.	Louth	04/07/98	Jun 00	12/06/98	03/07/98	21	466.78	50.86	415.92	14.0	9.1	4.05	37
137	U.K.	Louth	04/07/98	Sep 99	12/05/98	06/07/98	55	347.22	44.00	303.22	11.5	9.3	4.42	80
145	U.K.	Grimsby	04/07/98	Oct 99	06/04/98	07/07/98	92	684.45	78.82	605.63	6.0	14.1	4.01	83

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	Ring	Pull		×																							
Finish	Neither	Plain		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
End Internal Finish	One	Plain	×																								
End	B	Plain																									
Finish	Partially	Plain	×		×																						
Body Internal Finish	Fully	Plain				×		×		X		×	×		×	X	×	×	×	×	×	×			×	×	×
Body	Fully	Lacquered		×			×		×		×			×									×	×			
	3 Piece	Soldered																									
Construction	3 Piece	Welded		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×
	i	2 Piece	×																				×				
	Sample	No.	002	010	017	023	026	033	044	048	020	052	059	065	071	074	075	084	960	860	105	109	119	121	129	137	145

Sample	Can Internal Condition
No.	
200	Moderate etching on unlacquered areas of can surface.
010	Some corrosion/pitting on can maker's end. Ring pull end and body, good condition.
017	Moderate uneven etching with some bright tinplate.
023	Moderate etching.
026	Some corrosion along whole length of side seam. Body in good condition.
033	Light etching.
044	No visible defects.
048	Moderate-heavy etching. One area of de-tinning.
020	No visible problems.
052	Moderate-heavy etching, evenly over tinplate surface.
028	Moderate etching, quite dull. Slight waterline corrosion.
90	No visible defects.
071	Light-moderate etching.
074	Moderate grey etching. Average condition.
075	Moderate grey etching. Average condition.
084	Light-moderate etching. Average condition.
960	Light-moderate etching.
860	Light-moderate etching.
105	Moderate etching.
109	Light etching. Evidence of some tin sulphide formation on surface, especially in headspace.
119	No visible defects.
121	Very good condition.
129	Moderate etching. Small tin crystal size.
137	Moderate, even grey etching. Average condition.
145	Moderate grey etching. Average condition.





- N.B. All data on the spreadsheets are taken from can A of each sample number, with the exception of samples EM 38209/139, EM 38209/158 and EM 38209/159, which use data from can B.
- 1. Ingredients of Cream of Tomato Soup (EM 38209/005)

 Tomato purée, water, sugar, vegetable oil, modified starch, salt, whey powder, cream, citric acid, spices.
- 2. Ingredients of Special Recipe Chunky Tomato and Vegetable Soup with Pasta (EM 38209/017)
 Water, carrots, onions, potatoes, swedes, tomatoes, tomato purée, green peppers, celery, courgettes, red peppers, pasta, vegetable oil, modified maize starch, maize starch, salt, vegetable bouillon concentrate (contains soya, wheat starch and lactose), sugar, garlic purée, oregano, dried basil, black pepper, dried parsley.
- 3. Ingredients of Cream of Tomato Soup (EM 38209/017)
 Water, tomato purée, sugar, vegetable oil, cornflour, modified starch, salt, skimmed milk powder, double cream, whey powder, seasoning, citric acid.
- 4. Ingredients of Cream of Tomato Soup (EM 38209/023)
 Tomatoes, water, vegetable oil, sugar, modified cornflour, salt, dried skimmed milk, whey protein, cream, spices, herbs, citric acid.
- 5. Ingredients of Condensed Italian Tomato Soup with Basil (EM 38209/026) Water, tomato purée, vegetable oil, onions, sugar, modified starch, salt, milk protein, herbs, citric acid and spices.
- 6. Ingredients of Tomato Soup (EM 38209/033)
 Water, tomato purée, vegetable oil, cornflour, sugar, salt, modified starch, whey powder, soya protein, citric acid, sweetener (saccharin), wheat flour, flavour enhancer (E621), hydrolysed vegetable protein.
- 7. Ingredients of Chopped Tomatoes with Basil (EM 38209/038)
 Tomatoes, concentrated tomato juice, basil, salt, natural flavourings, citric acid.
- 8. Ingredients of Tomato and Lentil Soup (EM 38209/044)
 Water, brown lentils, red lentils, tomato purée, carrots, onions, tomatoes, modified maize starch, celery, parsnip, salt, sugar, spinach, potato starch, soy sauce, vegetable bouillon, flavouring.
- 9. Ingredients of Condensed Cream of Tomato Soup (EM 38209/048)
 Water, tomato purée, sugar, vegetable oil, modified starch, single cream, salt, milk protein, citric acid, spices.

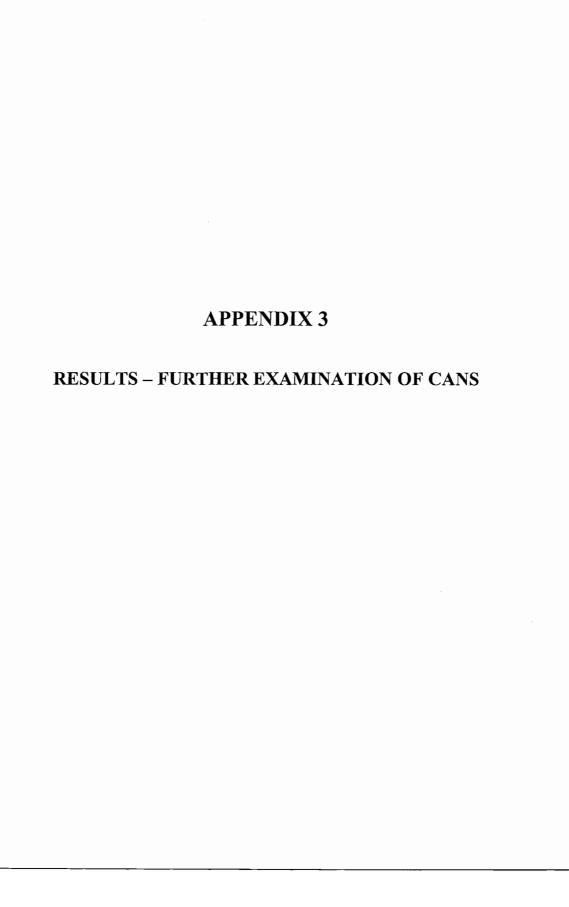
- 10. Ingredients of Tomato and Herb Soup (EM 38209/050)
 Water, tomato purée, tomato, vegetable oil, sugar, onion, whey powder, starch, butter, salt, cream, modified starch, basil, citric acid, spices, herbs.
- 11. Ingredients of Cream of Tomato Soup (EM 38209/052)
 Water, tomato purée, sugar, vegetable oil, modified maize starch, single cream, salt, whey powder, citric acid, spices.
- 12. Ingredients of Chopped Tomatoes with Basil in Tomato Juice (EM 38209/057)
 Chopped tomatoes, tomato juice, salt, basil dried, basil extract, fried onion extract, citric acid.
- 13. Ingredients of Tomato Soup (EM 38209/059)
 Water, tomato purée, sugar, vegetable oil, cornflour, modified starch, salt, skimmed milk powder, double cream, whey powder, flavouring, citric acid.
- 14. Ingredients of 98% Fat Free Italian Tomato Soup with Basil (EM 38209/065)
 Highland water, tomatoes, carrots, red lentils, tomato purée, potatoes, modified cornflour, vegetable oil, sugar, wheat flour, skimmed milk powder, whey powder, salt, vegetable bouillon concentrate, butter, double cream, garlic purée, stabiliser (polyphosphates), basil, coriander, celery extract, pepper.
- 15. Ingredients of Tomato Soup (EM 38209/071)

 Tomatoes, water, modified cornflour, sugar, salt, dried skimmed milk, vegetable oil, whey protein, citric acid, sweetener acesulfame potassium, spice extracts and herb extracts.
- 16. Ingredients of Cream of Tomato Soup (EM 38209/074)
 Tomatoes, water, vegetable oil, sugar, modified cornflour, salt, dried skimmed milk, whey protein, cream, spices, herbs, citric acid.
- 17. Ingredients of Tomato and Orange Soup with Basil (EM 38209/075)
 Highland water, tomatoes, oranges, sugar, wheat flour, thickener, modified maize starch, salt, dried skimmed milk, vegetable oil, basil, stabiliser (polyphosphates), spice extracts, citric acid.
- 18. Ingredients of Tomato Soup (EM38209/084)
 Water, tomato paste, vegetable oil, cornflour, sugar, thickener (modified starch), salt, whey powder, soya protein isolate, citric acid, artificial sweetener (sodium saccharin), wheat flour, flavour enhancer (monosodium glutamate), hydrolysed vegetable protein.
- 19. Ingredients of Cream of Tomato Soup (EM 38209/096)
 Tomatoes, water, vegetable oil, sugar, modified cornflour, salt, dried skimmed milk, whey protein, cream, spices, herbs, citric acid.
- 20. Ingredients of Cream of Tomato Soup (EM 38209/098)
 Water, tomato purée, sugar, vegetable oil, modified starch, salt, starch, whey powder, cream, citric acid, spices.

- 21. Ingredients of Cream of Tomato Soup (EM 38209/105)

 Tomatoes, water, vegetable oil, sugar, modified cornflour, salt, dried skimmed milk, whey protein, cream, spices, herbs, citric acid.
- 22. Ingredients of Virtually Fat Free Tomato, Vegetable and Rice Soup (EM38209/109) Water, tomato purée, potato, tomatoes, carrot, celery, courgette, onion, modified starch, cauliflower, long grain rice, red pepper, sugar, salt, potato starch, vegetable stock powder, dried basil, ground black pepper, garlic extract, citric acid.
- 23. Ingredients of Cream of Tomato Soup (EM38209/119)
 Water, tomato purée, sugar, vegetable oil, modified starch, salt, starch, whey powder, double cream, citric acid, spices.
- 24. Ingredients of Tomato and Lentil Soup (EM 38209/121)
 Water, brown lentils, red lentils, tomato purée, carrots, onions, tomatoes, modified maize starch, celery, parsnip, salt, sugar, spinach, potato starch, soy sauce, vegetable bouillon, flavouring.
- 25. Ingredients of Cream of Tomato Soup (EM38209/129)
 Water, tomato purée, vegetable oil, cornflour, sugar, modified starch, salt, whey powder, soya protein, citric acid, sweetener (saccharin), wheat flour, flavour enhancer, monosodium glutamate, hydrolysed vegetable protein.
- 26. Ingredients of Cream of Tomato Soup (EM 38209/137)
 Tomatoes, water, vegetable oil, sugar, modified cornflour, salt, dried skimmed milk, whey protein, cream, spices, herbs, citric acid.
- Ingredients of Italian Chopped Tomatoes With Peppers, Onions and Herbs (EM38209/138)
 Chopped tomatoes, tomato juice, green peppers, onions, salt, sugar, basil, oregano, citric acid.
- 28. Ingredients of Cream of Tomato Soup (EM38209/145)
 Water, tomato purée, sugar, vegetable oil, modified maize starch, single cream, salt, whey powder, citric acid, spices.







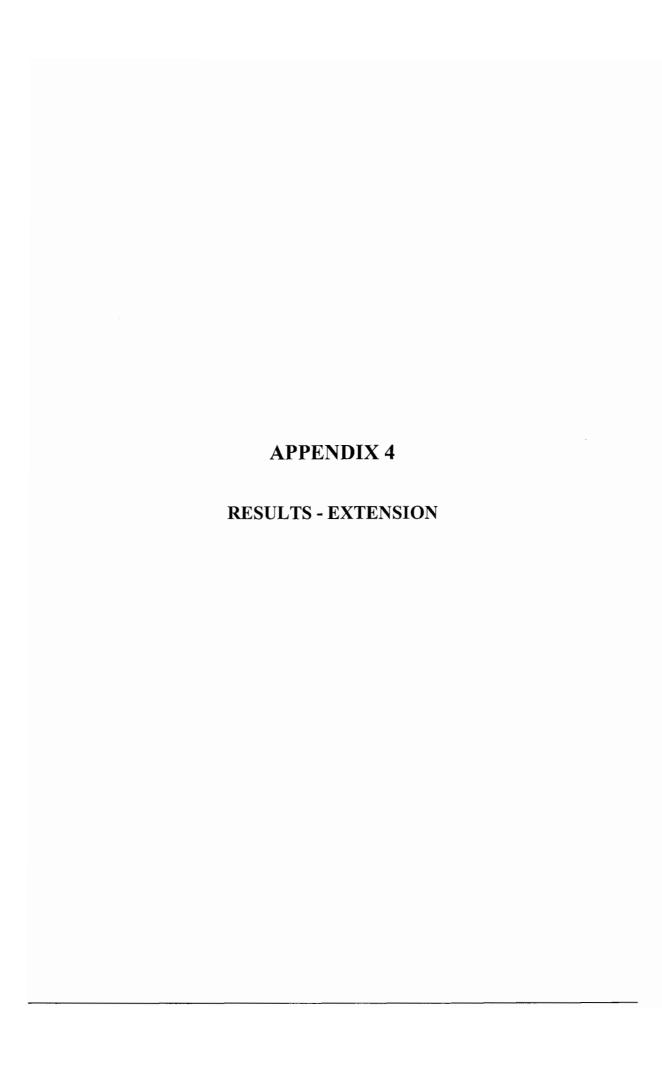
Mar 00 16/03/98 03/07/98 109 33.7.56 40.07 297.49 Jun 00 13/06/97 03/07/98 385 474.13 53.96 420.17 Mar 00 27/03/98 03/07/98 98 464.89 50.09 414.80 Apr 99 24/01/97 03/07/98 525 470.03 63.16 406.87 Sep 99 28/08/97 03/07/98 551 656.53 77.96 578.57 Dec 98 29/12/96 03/07/98 554 274.81 47.08 227.73 Jun 99 26/06/96 03/07/98 737 486.43 54.08 405.91 Sep 99 15/09/97 07/07/98 295 456.29 50.38 405.91 Feb 00 20/09/97 04/09/98 349 464.43 50.62 413.81 Mar 00 16/03/98 04/09/98 448 474.79 54.06 420.73	16/03/98 03/07/98 109 337.56 40.07 297.49 13/06/97 03/07/98 385 474.13 53.96 420.17 27/03/98 03/07/98 385 474.13 53.96 420.17 24/01/97 03/07/98 525 470.03 63.16 406.87 28/08/97 03/07/98 551 656.53 77.96 578.57 26/12/96 03/07/98 554 274.81 47.08 227.73 26/06/96 03/07/98 737 486.43 54.08 432.35 15/09/97 04/09/98 349 464.43 50.62 413.81 16/03/98 04/09/98 172 335.06 38.29 296.77 13/06/97 04/09/98 448 474.79 54.06 420.73 27/03/98 04/09/98 161 474.73 49.96 424.41	16/03/98 03/07/98 109 337.56 40.07 297.49 13/06/97 03/07/98 385 474.13 53.96 420.17 27/03/98 03/07/98 385 474.13 53.96 420.17 24/01/97 03/07/98 525 470.03 63.16 406.87 28/08/97 03/07/98 551 656.53 77.96 578.57 26/12/96 03/07/98 554 274.81 47.08 227.73 26/06/96 03/07/98 737 486.43 54.08 432.35 15/09/97 07/07/98 295 456.29 50.38 405.91 20/08/98 04/09/98 172 335.06 38.29 296.77 16/03/98 04/09/98 161 474.37 54.06 420.73 27/03/98 04/09/98 161 474.37 56.06 424.41 27/03/98 04/09/98 161 474.37 62.65 420.73 24/01/97 04/09/98 161	16/03/98 03/07/98 109 337.56 40.07 297.49 13/06/97 03/07/98 385 474.13 53.96 420.17 27/03/98 03/07/98 385 474.13 53.96 420.17 24/01/97 03/07/98 525 470.03 63.16 406.87 28/08/97 03/07/98 551 656.53 77.96 578.57 26/12/96 03/07/98 554 274.81 47.08 227.73 26/06/96 03/07/98 737 486.43 54.08 432.35 15/09/97 07/07/98 295 456.29 50.38 405.91 20/09/97 04/09/98 172 335.06 38.29 296.77 15/09/97 04/09/98 161 474.79 54.06 420.73 27/03/98 04/09/98 161 474.37 49.96 424.41 28/08/97 04/09/98 588 467.85 62.65 405.20 28/08/97 04/09/98 588	03/07/98 109 337.56 40.07 297.49 03/07/98 385 474.13 53.96 420.17 03/07/98 385 474.13 53.96 420.17 03/07/98 525 470.03 63.16 406.87 03/07/98 551 656.53 77.96 578.57 03/07/98 554 274.81 47.08 227.73 03/07/98 737 486.43 54.08 432.35 04/09/98 349 464.43 50.62 413.81 04/09/98 172 335.06 38.29 296.77 04/09/98 161 474.77 54.06 420.73 04/09/98 161 474.37 49.96 424.41 04/09/98 588 467.85 62.65 405.20 04/09/98 614 661.35 77.23 584.12 04/09/98 614 661.35 77.23 584.12	03/07/98 109 337.56 40.07 297.49 03/07/98 385 474.13 53.96 420.17 03/07/98 385 474.13 53.96 420.17 03/07/98 525 470.03 63.16 406.87 03/07/98 551 656.53 77.96 578.57 03/07/98 554 274.81 47.08 227.73 03/07/98 737 486.43 54.08 432.35 04/09/98 349 464.43 50.62 413.81 04/09/98 172 335.06 38.29 296.77 04/09/98 161 474.79 54.06 420.73 04/09/98 161 474.37 54.06 420.73 04/09/98 614 661.35 77.23 584.12 04/09/98 617 276.11 46.82 229.29 04/09/98 617 276.11 46.82 229.29 04/09/98 617 276.11 46.82 229.29	03/07/98 109 337.56 40.07 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467.85	16/03/98 03/07/98 109 337.56 13/06/97 03/07/98 385 474.13 27/03/98 03/07/98 98 464.89 24/01/97 03/07/98 525 470.03 28/08/97 03/07/98 551 656.53 26/12/96 03/07/98 554 274.81 26/06/96 03/07/98 737 486.43 15/09/97 07/07/98 295 456.29 20/09/97 04/09/98 172 335.06 13/06/97 04/09/98 161 474.43 27/03/98 04/09/98 161 474.37 28/08/97 04/09/98 161 474.37 28/08/97 04/09/98 161 474.37 28/08/97 04/09/98 588 467.85 28/04/96 04/09/98 614 661.35	03/07/98 109 337.56 03/07/98 385 474.13 03/07/98 385 474.13 03/07/98 525 470.03 03/07/98 551 656.53 03/07/98 554 274.81 03/07/98 737 486.43 04/09/98 349 464.43 04/09/98 172 335.06 04/09/98 161 474.79 04/09/98 161 474.37 04/09/98 588 467.85 04/09/98 614 661.35 04/09/98 614 661.35	03/07/98 109 337.56 03/07/98 385 474.13 03/07/98 385 474.13 03/07/98 525 470.03 03/07/98 551 656.53 03/07/98 737 486.43 04/09/98 737 486.43 04/09/98 748 464.43 04/09/98 172 335.06 04/09/98 161 474.79 04/09/98 161 474.79 04/09/98 614 661.35 04/09/98 614 661.35 04/09/98 617 276.11 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Sample No.		Headspace Volume (ml)	Total Gas @ 1 Atmos	Hydrogen (%)	Hydrogen Hydrogen (%)	Oxygen & Argon Oxygen (%) (ml)	Oxygen (ml)	Nitrogen (%)	Nitrogen (ml)	Carbon Dioxide (%)	Carbon Nitrous Dioxide Oxide (ml) (%)	Nitrous Oxide (%)	Nitrous Oxide (ml)	Citric Acid (mg/kg)	Malic Acid (mg/kg)	Residual Internal TCW TCW (g/m²) (g/m²)	Internal TCW (g/m²)
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048	\dagger	28.5	28.0	1.0	0.3	6.0	0.2	86.9	24.3	10.7	3.0	<0.01	,	,			
190	+	14.5	15.3	1.9	0.3	0.9	0.1	84.7	12.9	12.6	1.9	<0.01				1	1
084	T	,	18.2	3.0	0.5	6.0	0.2	89.1	16.3	7.6	1.4	<0.01		,	,	1	,
088		25.2	27.6	1.6	0.4	1.1	0.3	83.8	23.1	14.2	3.9	<0.01	,		-	•	
091		8.6	7.8	1.0	0.1	6.0	0,1	91.7	7.2	5.7	0.4	<0.01	,	5228	1743	•	,
104		20.5	27.1	1.1	0.3	1.4	0.4	29.0	7.9	67.0	18.2	<0.01		-	,	-	
116		14.9	9.8	6.7	0.8	6.0	0.1	84.3	8.2	8.7	6.0	<0.01	ŧ	1	1	1	•
124		11.9	8.1	2.6	0.2	1.1	0.1	85.4	6.9	11.8	1.0	<0.01	•	,		-	•
148		12.8	16.8	1.2	0.2	6.0	0.1	90.3	15.1	7.1	1.1	<0.01	•		•	-	-
016*		14.0	10.4	1.4	0.1	1.2	0.1	6.06	9.5	8.9	0.7	<0.01	-	6407	1038	7.1	10.6
048		30.9	29.0	0.8	0.2	1.1	0.3	82.8	24.9	9.6	2.8	<0.01	•	3633	9375	0.7	9.8
290		11.8	12.9	2.2	0.3	1.2	0.5	83.0	10.7	11.9	1.5	<0.01		9086	2932	8.0	11.0
084		14.8	15.3	1.8	0.3	1.1	0.5	88.5	13.5	6.4	1.0	<0.01	•	2804	2804	0'2	8.1
088		21.2	20.6	2.8	9.0	1.2	0.2	82.2	16.9	12.7	5.6	<0.01	-	17827	1058	2.7	10.6
091		1	,	1	•	,	1	•		•	ı	•	•	1	1		
104		19.3	27.1	3.1	0.8	1.0	0.3	71.1	19.2	23.1	6.3	<0.01	,	18232	1160	9.5	11.5
116		13.1	8.6	6.8	9.0	1.5	0.1	83.9	7.2	7.0	9.0	<0.01	'	6285	4051	9.6	8.1
124		14.0	9.8	1.9	0.2	1.3	0.1	85.0	8.3	10.2	1.0	<0.01	-	2610	8454	10.1	11.2
148		9.8	14.4	1.1	0.2	1.1	0.2	88.6	12.8	7.4	1.1	<0.01		7165*	1227*	0.9	11.6
* Can D													**	**			
	1																

TCW - Tin coating weight ** Mean of 2 determinations

	Ring	Pull		Γ		Γ	<u> </u>																										Γ	T
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Finish	Neither	Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
End Internal Finish	One	Plain																																
End	Both Ends	Plain																																-
Finish	Partially	Plain	X		×		×	×	×		×	×	×		×		×	×	×		×	×	×		×		×	×	×		×	×		
Body Internal Finish	Fully	Plain		×		×				×				×		×				×				×		X				×				
Body	Fully	Lacquered																																
	3 Piece	Soldered																																
Construction	3 Piece	Welded	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
_		2 Piece																																
	Sample	No.	016	048	290	084	088	091	104	116	124	148	016	048	067	084	088	091	104	116	124	148	016*	048	067	084	088	091	104	116	124	148		
	Can						٨										В										ပ							

Sample		Can Internal Condition
Т	Modera	Moderate-heavy etching with some de-tinning around beaded areas.
048 Moder	Moder	Moderate-heavy etching. One area of de-tinning.
067 Model	Mode	Moderate-heavy etching over whole can body. Average condition.
084 Light-ı	ight-ı	Light-moderate etching. Average condition.
088 Heavy	Heav	Heavy etching with de-tinning in headspace area and parts of can body. Very poor condition.
091 Light	ight	Light grey etchings. Good condition.
104 Some	Some	Some waterline corrosion. Light-moderate etching with large crystal size.
116 Mode	Mode	Moderate-heavy even etching. Very small crystal size.
124 Light	_ight	Light/moderate etching, large crystal size. Good condition overall.
148 Even	Even	Even-moderate etching over tinplate surface.
016 Medi	Medi	Medium etching, evenly over surface. Good condition overall.
048 Mod	No	Moderate etching with some de-tinning in headspace area of can. Small crystal size.
067 Hear	Fear	Heavy etching of can surface. Average condition.
084 Ligh	įģ	Light-medium etching of can surface. Good condition.
088 Hea	Fea	Heavy waterline de-tinning. Some de-tinning to body. Moderate etching.
091 Mod	Mod	Moderate etching of can surface. Some corrosion of side seam visible. Average condition.
	igh	Light-moderate general etching. Good-average condition.
116 Evel	Evel	Even moderate etching with some waterline corrosion. Very small crystal size.
124 Ligh	-igh	Light general etching. Some evidence of localised heavy de-tinning.
148 Med	Med	Medium-heavy etching. Overall poor condition.
016* Med	Med	Medium etching over can surface. Average condition.
048 Ever	Evel	Even heavy etching of tinplate surface. Poor condition. Some detinning visible in waterline area.
	Gen	Generally even moderate etching. Some blotchiness.
084 Evel	Evel	Even light-moderate etching of tinplate surface. Good condition.
980 Mod	Mod	Moderate etching of tinplate surface. Heavy waterline marks visible. Average-poor condition
091		
104 Ever	Ever	Even etching of tinplate surface: large clystal size. Some waterline marks in headspace area. Average condition.
116 Mod	Mod	Moderate-heavy etching of tinplate surface. Very small crystal size. Average condition.
124 Ligh	igh	Light etching of tinplate surface. Bright. Good condition.
148 Even	Even	Even-moderate etching over tinplate surface. Average condition.
* Can D		
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Sample No.	Product	Net Weight (g)	Ingredients Listed	Price (£)
166A	Chopped Tomatoes in Tomato Juice	230	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
166B	Chopped Tomatoes in Tomato Juice	230	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
166C	Chopped Tomatoes in Tomato Juice	230	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
167A	Chopped Tomatoes in Tomato Juice	230	Chopped Tomatos, Tomato Juice, Citric Acid	0.29
167B	Chopped Tomatoes in Tomato Juice	230	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
167C	Chopped Tomatoes in Tomato Juice	230	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
168A	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
168B	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
168C	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
169A	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
169B	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
169C	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
170A	Premium Peeled Plum Tomatoes	400	Tomatoes, Tomato Juice, Citric Acid	0.26
170B	Premium Peeled Plum Tomatoes	400	Tomatoes, Tomato Juice, Citric Acid	0.26
170C	Premium Peeled Plum Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.26
171A	Premium Peeled Plum Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.26
171B	Premium Peeled Plum Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.26
171C	Premium Peeled Plum Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.26
172A	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes (65%), Tomato Juice, Salt, Firming Agent (CalciumChloride), Citric Acid	0.27
172B	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes (65%), Tomato Juice, Salt, Firming Agent (CalciumChloride), Citric Acid	0.27
172C	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes (65%), Tomato Juice, Salt, Firming Agent (CalciumChloride), Citric Acid	0.27
173A	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes (65%), Tomato Juice, Salt, Firming Agent (CalciumChloride), Citric Acid	0.27
173B	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes (65%), Tomato Juice, Salt, Firming Agent (CalciumChloride), Citric Acid	0.27
173C	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes (65%), Tomato Juice, Salt, Firming Agent (CalciumChloride), Citric Acid	0.27
174A	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
174B	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
174C	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
175A	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
175B	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
175C	Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	0.35
176A	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
176B	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
176C	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
177A	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
177B	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29
177C	Chopped Tomatoes in Tomato Juice	400	Chopped Tomatoes, Tomato Juice, Citric Acid	0.29

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Sample	Product	ner Weight	Ingredients Listed	Price
No.		(g)		(£)
178A	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	60.0
178B	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	60.0
178C	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	60.0
179A	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	60.0
179B	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	60.0
179C	Plum Tomatoes in Tomato Juice	400	Tomatoes, Tomato Juice, Citric Acid	60.0
180A	Italian Premium Whole Peeled Plum Tomatoes in Rich Tomato Sauce	400	Tomatoes (58%), Concentrated Tomato Juice, Citric Acid	0.29
180B	Italian Premium Whole Peeled Plum Tomatoes in Rich Tomato Sauce	400	Tomatoes (58%), Concentrated Tomato Juice, Citric Acid	0.29
180C	Italian Premium Whole Peeled Plum Tomatoes in Rich Tomato Sauce	400	Tomatoes (58%), Concentrated Tomato Juice, Citric Acid	0.29
181A	Italian Premium Whole Peeled Plum Tomatoes in Rich Tomato Sauce	400	Tomatoes (58%), Concentrated Tomato Juice, Citric Acid	0.29
181B	Italian Premium Whole Peeled Plum Tomatoes in Rich Tomato Sauce	400	Tomatoes (58%), Concentrated Tomato Juice, Citric Acid	0.29
181C	Italian Premium Whole Peeled Plum Tomatoes in Rich Tomato Sauce	400	Tomatoes (58%), Concentrated Tomato Juice, Citric Acid	0.29
182A	Italian Finely Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Concentrated Tomato Juice, Citric Acid	0.42
182B	Italian Finely Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Concentrated Tomato Juice, Citric Acid	0.42
182C	Italian Finely Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Concentrated Tomato Juice, Citric Acid	0.42
183A	Italian Finely Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Concentrated Tomato Juice, Citric Acid	0.42
183B	Italian Finely Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Concentrated Tomato Juice, Citric Acid	0.42
183C	Italian Finely Chopped Tomatoes in Rich Tomato Juice	400	Tomatoes, Concentrated Tomato Juice, Citric Acid	0.42
184A	Peeled Plum Tomatoes in Tomato Juice	227	Peeled Tomatoes, Tomato Juice, Citric Acid	0.14
184B	Peeled Plum Tomatoes in Tomato Juice	227	Peeled Tomatoes, Tomato Juice, Citric Acid	0.14
184C	Peeled Plum Tomatoes in Tomato Juice	227	Peeled Tomatoes, Tomato Juice, Citric Acid	0.14
185A	Chopped Tomatoes in Tomato Juice	227	Chopped Peeled Tomatoes, Tomato Juice, Citric Acid	0.27
185B	Chopped Tomatoes in Tomato Juice	227	Chopped Peeled Tomatoes, Tomato Juice, Citric Acid	0.27
185C	Chopped Tomatoes in Tomato Juice	227	Chopped Peeled Tomatoes, Tomato Juice, Citric Acid	0.27
186A	Peeled Plum Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice, Acidity Regulator: Citric Acid	0.09
186B	Peeled Plum Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice, Acidity Regulator: Citric Acid	60.0
186C	Peeled Plum Tomatoes in Tomato Juice	400	Peeled Tomatoes, Tomato Juice, Acidity Regulator: Citric Acid	60.0
187A	Chopped Tomatoes in Tomato Juice	400	Peeled Chopped Tomatoes, Tomato Juice, Acidity Regulator: Citric Acid	0.15
187B	Chopped Tomatoes in Tomato Juice	400	Peeled Chopped Tomatoes, Tomato Juice, Acidity Regulator: Citric Acid	0.15
187C	Chopped Tomatoes in Tomato Juice	400	Peeled Chopped Tomatoes, Tomato Juice, Acidity Regulator: Citric Acid	0.15
188A	Italian Plum Peeled Tomatoes in Rich Tomato Juice	400	Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.23
188B	Italian Plum Peeled Tomatoes in Rich Tomato Juice	400	Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.23
188C	Italian Plum Peeled Tomatoes in Rich Tomato Juice	400	Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.23
189A	Italian Plum Peeled Tomatoes in Rich Tomato Juice	400	Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.23
189B	Italian Plum Peeled Tomatoes in Rich Tomato Juice	400	Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.23
189C	Italian Plum Peeled Tomatoes in Rich Tomato Juice	400	Peeled Plum Tomatoes, Tomato Juice, Citric Acid	0.23

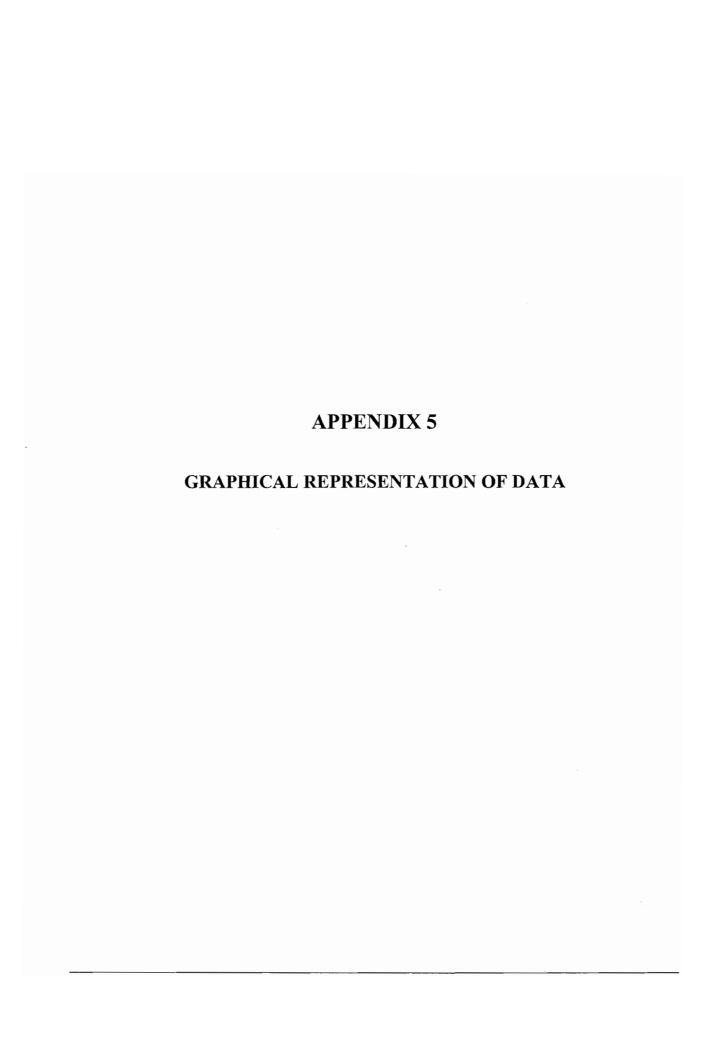
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Tin	(mg/kg)	74	82		63	74		155	144		240	213		92	102		06	75		<5	<2		<5	2		121	26		349	320		74	2.2		77	09	
7	nd	4.16	4.18		4.21	4.21		4.27	4.32		4.14	4.21		4.15	4.18		4.19	4.24		3.87	3.62		3.86	3.95		4.25	4.27		4.04	4.07		4.03	4.15		4.01	4.07	
Gross	Depth (mm)	6.1	7.0		9.9	6.1		8.6	10.7		7.5	8.1		5.2	8.3		9.8	5.5		14.6	12.3		12.4	12.1		10.3	8.4		12.2	10.3		9.2	10.8		9.6	9.4	
	(in. Hg)	3.0	3.0		3.0	2.5		7.5	5.5		5.5	4.0		3.0	3.0		4.5	3.0		12.0	16.5		13.0	13.5		2.0	3.5		7.0	7.0		4.0	0.9		7.5	8.0	
Contents	weigin (g)	229.7	229.4		234.8	234.8		406.7	403.0		415.5	411.1		422.9	410.9		409.9	422.7		406.9	417.2		417.4	410.0		408.5	412.1		402.3	410.6		405.6	405.8		406.0	408.6	
Empty		35.9	36.2		36.6	36.7		50.1	49.8		52.0	51.7		49.0	48.6		51.5	51.2		57.4	57.7		9.73	57.6		51.8	51.8		9.05	49.6		49.7	50.1		20.0	49.9	
Full Weight	(g)	265.6	265.6		271.5	271.5		456.8	452.8		467.5	462.8		472.0	459.5		461.4	473.9		464.3	474.9		475.0	467.6		455.3	463.9		453.0	460.2		455.4	455.9		456.0	458.5	
No. of Days	Opened	113	116		105	108		455	458		436	439		824	827		466	469		402	712		502	712		481	484		438	441		114	117		114	117	
- Cate	Opened	30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98		30/11/98	03/12/98	
Dacking	Date	86/80/60	86/80/60	86/80/60	17/08/98	17/08/98	17/08/98	01/09/97	01/09/97	01/09/97	20/09/97	20/09/97	20/09/97	27/08/96	27/08/96	27/08/96	21/08/97	21/08/97	21/08/97	21/12/97	21/12/97	21/12/97	21/12/97	21/12/97	21/12/97	06/08/97	06/08/97	26/80/90	18/09/97	18/09/97	18/09/97	08/08/98	86/80/80	86/80/80	86/80/80	86/80/80	86/80/80
Best	Date	Aug 00	Dec 99	Dec 99	Dec 38	Dec 99	Dec 99	Dec 99	Sep 99	Sep 99	Sep 99	Aug 00	Aug 00	Aug 00	Sep 99	Dec 99	Dec 99	Dec 38	Dec 99	Dec 99	Dec 99	Aug 00	Ang 00														
O of co	Purchase	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98	26/11/98
jo ozelo	Purchase	Kidderminster	Evesham																																		
o națario d	Origin	Italy	Canada	Canada	Canada	Canada	Canada	Canada	Italy																												
Sample	No.	166A	166B	166C	167A	167B	167C	168A	168B	168C	169A	169B	169C	170A	170B	170C	171A	171B	171C	172A	172B	172C	173A	173B	173C	174A	174B	174C	175A	175B	175C	176A	176B	176C	177A	177B	177C

Original Purchase Purchase Purchase Date Date Date Date Date Opened Ope	Sample	Jo napano	Jo or of	Date Of	Best	Packing	Date Can	No. of Days	Full Weight	Empty	Contents	Vacillim	Gross	1	Tin
listy Eveetham 2611198 Sep O 2401998 001198 67 4645 6.0.7 412.5 7.0 8:1 3.9 Italy Eveetham 2611198 Sep O 240998 031298 7 462.8 6.0.7 412.5 3.0 6.3 4.12 Italy Evestham 2611198 Sep O 1500898 3011198 106 42.5 4.9 4.10 4.5 6.0 3.96 Italy Evestham 2611198 Sep O 1500899 2100899 3017198 465 467.2 46.5 6.0 1.26 4.06 Italy Evestham 2611198 Sep O 2100899 3017198 465 467.2 40.3 6.0 1.26 4.26 Italy Evestham 2611198 Sep O 2100897 3017198 465 463.7 40.0 1.06 4.26 40.0 4.26 4.26 40.0 4.26 4.26 4.26 4.26 4.26 4).	Origin		Purchase	Date	Date	Opened	Opened	(g)		(g)	(in. Hg)	Depth (mm)		(mg/kg)
Italy Eversham 26/11/98 Sapo 00 24/02/98 70 462.1 49.1 41.1 3.5 8.5 4.0 Italy Evestham 26/11/98 Sapo 00 24/02/98 30/11/98 103 460.1 49.1 411.0 3.5 8.5 4.0 Italy Evestham 26/11/98 Sap 00 19/08/98 30/11/98 166 45.2 43.2 412.6 6.5 8.0 4.26 Italy Evestham 26/11/98 Sap 09 21/08/97 30/11/98 466 457.4 54.2 403.2 6.0 12.6 42.8 Italy Evestham 26/11/98 Sap 09 21/08/97 30/11/98 466 457.4 54.2 403.2 6.0 12.6 42.8 Italy Evestham 26/11/98 Sap 09 21/08/97 30/11/98 466 457.4 41.2 6.5 9.5 4.2 Italy Evestham 26/11/98 Sap 00 20/08/98 30/11/98 <td>3A</td> <td>Italy</td> <td>Evesham</td> <td>26/11/98</td> <td>Sep 00</td> <td>24/09/98</td> <td>30/11/98</td> <td></td> <td>464.5</td> <td>2.03</td> <td>413.8</td> <td>0.7</td> <td>8.1</td> <td>3.94</td> <td>20</td>	3A	Italy	Evesham	26/11/98	Sep 00	24/09/98	30/11/98		464.5	2.03	413.8	0.7	8.1	3.94	20
Italy Eversham 26/11/98 Sep 00 24/11/98 Sep 00 24/11/98 Sep 00 24/11/98 Sep 00 19/08/98 00/11/98 10/11/	æ	Italy	Evesham	26/11/98	Sep 00	24/09/98	03/12/98	70	462.8	50.2	412.5	3.0	6.3	4.12	54
Italy Evestham 26/11/98 Sep 00 19/08/98 30/11/98 460.1 411.0 3.5 8.5 4.0 Italy Evestham 26/11/98 Sep 00 19/08/98 0/31/299 10 462.5 462.5 441.0 3.5 8.5 4.0 Italy Evestham 26/11/98 Sep 00 19/08/99 0/31/99 467.2 46.2 442.6 6.5 8.5 4.24 Italy Evestham 26/11/98 Sep 99 21/08/97 0/31/98 465 467.2 46.2 40.02 6.5 9.5 4.24 Italy Evestham 26/11/98 Sep 99 21/08/97 0/31/98 465 467.7 40.02 6.5 9.5 4.28 Italy Evestham 26/11/98 Sep 99 21/08/97 0/31/98 465 467.3 46.7 40.02 6.5 9.5 4.28 Italy Evestham 26/11/98 Sep 99 21/08/98 0/31/98 465 46.3 </td <td>င္ထ</td> <td>Italy</td> <td>Evesham</td> <td>26/11/98</td> <td>Sep 00</td> <td>24/09/98</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	င္ထ	Italy	Evesham	26/11/98	Sep 00	24/09/98									
Italy Evestham 26/11/98 Sep 00 19/08/98 0.11/19/08	9A	Italy	Evesham	26/11/98	Sep 00	19/08/98	30/11/98	103	460.1	49.1	411.0	3.5	8.5	4.06	46
listly Evestham 22/11/198 Sep 99 21/08/99 30/11/98 467 467 412 412 428 Italy Evestham 22/11/198 Sep 99 21/08/97 03/12/98 469 457.4 452 403.2 6.0 12.6 42.8 Italy Evestham 26/11/198 Sep 99 21/08/97 30/11/98 469 463.7 463.7 403.2 6.0 12.6 42.8 Italy Evestham 26/11/98 Sep 99 21/08/97 30/11/98 469 463.7 463.7 400.7 6.5 9.5 4.26 Italy Evestham 26/11/98 Sep 00 21/08/99 30/11/98 468.9 467.4 461.3 46.9 46.7 46.1 46.2 40.0 4.3 4.3 Italy Evestham 26/11/98 Sep 00 06/08/98 30/11/98 117 461.3 46.1 46.9 46.7 46.1 46.8 46.4 46.8 46.6 46.7	ЭВ	Italy	Evesham	26/11/98	Sep 00	19/08/98	03/12/98	106	462.5	49.5	413.0	4.5	0.9	3.96	99
listy Evestham 26/11/198 Sep 99 21/08/97 30/11/198 466 467.2 64.2 40.2 60 12.6 42.8 Italy Evestham 26/11/198 Sep 99 21/08/97 30/11/198 469 66 60 12.6 42.8 Italy Evestham 26/11/198 Sep 99 20/08/97 30/11/198 465 64.0 40.9 60 4.35 Italy Evestham 26/11/198 Sep 99 20/08/97 30/11/98 465 64.0 65 67 1.26 4.28 Italy Evestham 26/11/98 Sep 90 20/08/98 30/11/98 114 461.2 54.1 40.8 4.35 14.2 40.8 4.35 14.8 Italy Evestham 26/11/98 Sep 00 08/08/98 30/11/98 117 461.3 54.1 40.8 4.35 14.2 40.8 4.35 14.8 Italy Evestham 26/11/98 Sep 00 08/08/98 </td <td>ပ္ထ</td> <td>Italy</td> <td>Evesham</td> <td>26/11/98</td> <td>Sep 00</td> <td>19/08/98</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	ပ္ထ	Italy	Evesham	26/11/98	Sep 00	19/08/98									
liaby Evestham 26/11/98 Sep 99 21/08/97 03/12/98 465 457.4 403.7 6.5 4.28 Italy Evestham 26/11/98 Sep 99 21/08/97 30/11/98 465 64.7 412.2 5.0 8.0 4.28 Italy Evestham 26/11/98 Sep 99 20/08/97 30/11/98 466.9 54.7 412.2 5.0 8.0 4.28 Italy Evestham 26/11/98 Sep 00 08/08/98 30/11/98 117 461.3 54.5 406.8 7.5 11.0 4.28 Italy Evestham 26/11/98 Sep 00 08/08/98 30/11/98 117 461.3 54.5 406.8 7.5 11.0 4.28 Italy Evestham 26/11/98 Sep 00 19/08/98 30/11/98 440 28.5 54.5 40.8 4.28 4.28 Italy Evestham 26/11/98 Sep 00 19/08/98 30/11/98 437 41.2 <t< td=""><td>Α</td><td>Italy</td><td>Evesham</td><td>26/11/98</td><td>Sep 99</td><td>21/08/97</td><td>30/11/98</td><td>466</td><td>467.2</td><td>54.5</td><td>412.6</td><td>6.5</td><td>8.0</td><td>4.24</td><td>98</td></t<>	Α	Italy	Evesham	26/11/98	Sep 99	21/08/97	30/11/98	466	467.2	54.5	412.6	6.5	8.0	4.24	98
Italy Evestham 26/11/98 Sep 99 21/006/97 30/11/98 466 465.7 46.8 46.8 4	ЭВ	Italy	Evesham	26/11/98	Sep 99	21/08/97	03/12/98	469	457.4	54.2	403.2	0.9	12.6	4.26	129
Italy Evestham 26/11/98 Sep 99 20/08/97 30/11/98 465 465.7 64.0 409.7 6.5 9.5 4.28 Italy Evestham 26/11/98 Sep 99 20/08/97 23/11/98 466.9 54.7 412.2 5.0 8.0 4.35 Italy Evestham 26/11/98 Sep 00 08/08/98 23/11/98 117 461.3 54.5 406.8 7.5 11.6 4.22 Italy Evestham 26/11/98 Sep 00 19/08/98 33/11/98 117 461.3 54.5 406.8 7.5 11.6 4.22 Italy Evestham 26/11/98 Sep 00 19/08/98 30/11/98 117 461.3 54.5 406.8 7.5 11.6 42.2 Italy Evestham 26/11/98 Sep 00 19/08/99 30/11/98 440 232.6 2.5 4.24 4.14 Italy Kidderminister 27/11/98 Dec 99 19/08/99 30/11/98	၁	Italy	Evesham	26/11/98	Sep 99	21/08/97									
Italy Evestham 26/11/98 Sep 99 20/08/97 03/12/98 466.9 64.7 412.2 5.0 8.0 4.35 Italy Evestham 26/11/98 Sep 90 20/08/98 03/11/98 117 461.3 54.5 406.8 7.5 11.6 4.22 Italy Evestham 26/11/98 Sep 00 08/08/98 03/11/98 117 461.3 54.5 406.8 7.5 11.6 4.22 Italy Evestham 26/11/98 Sep 00 19/08/98 03/11/98 117 461.3 54.5 406.8 7.5 11.6 4.22 Italy Evestham 26/11/98 Sep 00 19/08/98 03/11/98 437 27.7 45.0 232.6 5.5 4.14 Italy Kidderminister 27/11/98 Dec 99 19/08/97 03/11/98 440 28.2 4.0 4.2 Italy Kidderminister 27/11/98 Dec 99 19/08/97 03/11/98 78 4.6	4	Italy	Evesham	26/11/98	Sep 99	20/08/97	30/11/98	465	463.7	54.0	409.7	6.5	9.5	4.28	130
Italy Evesham 26/11/98 Sep 99 20/08/97 114 462.5 54.1 408.4 6.5 11.0 4.08 Italy Evesham 26/11/98 Sep 00 06/08/98 30/11/98 117 461.3 54.5 406.8 7.5 11.6 4.22 Italy Evesham 26/11/98 Sep 00 19/08/98 30/11/98 10.6 467.4 54.1 406.8 7.5 11.6 4.24 Italy Evesham 26/11/98 Sep 00 19/08/98 30/11/98 10.6 467.4 54.1 413.2 6.5 9.2 4.24 Italy Evesham 26/11/98 Sep 00 19/08/98 10.6 437 277.6 45.0 2.2 6.5 4.14 Italy Kidderminster 27/11/98 Dec 99 19/08/97 30/11/98 787 27/7.0 37.8 2.4 4.24 Italy Kidderminster 27/11/98 Dec 99 19/08/98 30/11/98 790 <td< td=""><td>18</td><td>Italy</td><td>Evesham</td><td>26/11/98</td><td>Sep 99</td><td>20/08/97</td><td>03/12/98</td><td>468</td><td>466.9</td><td>54.7</td><td>412.2</td><td>5.0</td><td>8.0</td><td>4.35</td><td>115</td></td<>	18	Italy	Evesham	26/11/98	Sep 99	20/08/97	03/12/98	468	466.9	54.7	412.2	5.0	8.0	4.35	115
Italy Evesham 26/11/98 Sep 00 06/08/98 30/11/98 114 46.2.5 54.1 408.4 6.5 10.3 4.08 Italy Evesham 26/11/98 Sep 00 06/08/98 07/12/98 117 46.1.3 54.5 406.8 7.5 11.6 4.22 Italy Evesham 26/11/98 Sep 00 19/08/98 30/11/98 106 46.3 46.3 54.5 406.3 6.5 10.8 4.24 Italy Evesham 26/11/98 Sep 00 19/08/98 30/11/98 106 46.7 46.0 23.26 6.5 10.8 4.14 Italy Kidderminster 27/11/98 Dec 99 19/08/97 30/11/98 787 277.0 23.26 6.5 10.8 4.14 Italy Kidderminster 27/11/98 Dec 99 19/08/97 30/11/98 780 23.26 24.1 4.24 Italy Kidderminster 27/11/98 Dec 99 19/09/97 30/11/98<	10	Italy	Evesham	26/11/98	Sep 99	20/08/97									
traly Evesham 26/11/98 Sep 00 08/08/98 03/12/98 117 461.3 54.5 406.8 7.5 11.6 4.22 Italy Evesham 26/11/98 Sep 00 19/08/98 30/11/98 103 463.8 54.5 406.8 7.5 11.6 4.24 Italy Evesham 26/11/98 Sep 00 19/08/98 30/11/98 106 467.4 54.1 413.2 6.5 9.2 4.24 Italy Kidderminster 27/11/98 Dec 99 19/08/99 30/11/98 40 28.2 41.5 22.6 6.5 4.13 Italy Kidderminster 27/11/98 Dec 99 19/08/99 30/11/98 40 28.2 41.6 2.2 5.5 4.14 Italy Kidderminster 27/11/98 Dec 99 19/08/99 30/11/98 780 28.3 2.2 2.5 4.14 4.15 Italy Kidderminster 26/11/98 Dec 99 19/109/98 30/11/98	ξ	Italy	Evesham	26/11/98	Sep 00	86/80/80	30/11/98	114	462.5	54.1	408.4	6.5	10.3	4.08	90
Italy Evesham 26/11/98 Sep 00 08/08/98 103 463.8 54.5 409.3 6.5 9.2 4.24 Italy Evesham 26/11/98 Sep 00 19/08/98 03/12/98 106 467.4 54.1 54.5 409.3 6.5 9.2 4.24 Italy Evesham 26/11/98 Sep 00 19/08/98 03/12/98 106 47.7 277.6 45.0 232.6 2.5 4.14 1.0 Italy Kiddemninster 27/11/98 Dec 99 19/08/97 30/11/98 440 282.5 41.5 24.0 4.14 Italy Kiddemninster 27/11/98 Dec 99 19/08/97 30/11/98 780 283.7 38.2 24.5 0.0 6.5 4.14 Italy Kiddemninster 28/11/98 Dec 99 13/10/96 31/12/98 790 283.7 38.2 24.5 4.0 4.0 Italy Kiddemninster 28/11/98 Aug 0 24/08/98	2B	Italy	Evesham	26/11/98	Sep 00	86/80/80	03/12/98	117	461.3	54.5	406.8	7.5	11.6	4.22	94
Italy Evesham 26/11/98 Sep 00 19/08/98 3/01/198 103 453.8 54.5 409.3 6.5 9.2 4.24 Italy Evesham 26/11/98 Sep 00 19/08/98 03/12/98 106 9.2 4.14 4.13 6.5 10.8 4.13 Italy Evesham 26/11/98 Sep 00 19/08/98 30/11/98 437 277.6 450 232.6 2.5 5.5 4.14 Italy Kidderminster 27/11/98 Dec 99 19/09/97 30/11/98 440 282.5 41.5 241.0 1.0 4.34 4.34 Italy Kidderminster 27/11/98 Dec 99 19/09/97 30/11/98 787 277.0 37.8 245.5 0.0 6.9 4.04 Italy Kidderminster 27/11/98 Dec 99 13/10/98 30/11/98 780 245.5 0.0 5.7 4.15 Italy Kidderminster 26/11/98 Dec 99 03/10/98	ည္က	Italy	Evesham	26/11/98	Sep 00	86/80/80									
Italy Evesham 26/11/98 Sep 00 19/08/98 03/12/98 106 467.4 54.1 413.2 6.5 10.8 4.13 Italy Evesham 26/11/98 Sep 00 19/08/98 437 277.6 45.0 232.6 5.5 4.14 Italy Kidderminster 27/11/98 Dec 99 19/09/97 03/12/98 440 282.5 41.5 241.0 1.0 4.8 4.24 Italy Kidderminster 27/11/98 Dec 99 19/09/97 03/12/98 440 282.5 41.5 241.0 1.0 4.8 4.24 Italy Kidderminster 27/11/98 Dec 99 03/10/96 03/12/98 790 283.7 38.2 245.5 0.0 6.9 4.06 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 790 245.5 0.0 5.7 4.15 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 61	3A	Italy	Evesham	26/11/98	Sep 00	19/08/98	30/11/98	103	463.8	54.5	409.3	6.5	9.2	4.24	81
Italy Evesham 26/11/98 Sep 00 19/08/98 437 277.6 45.0 232.6 25.5 4.14 Italy Kidderminister 27/11/98 Dec 99 19/08/97 30/11/98 440 282.5 41.5 241.0 1.0 4.8 4.24 Italy Kidderminister 27/11/98 Dec 99 19/08/97 30/11/98 440 282.5 41.5 241.0 1.0 4.8 4.24 Italy Kidderminister 27/11/98 Dec 99 03/10/96 30/11/98 787 277.0 37.8 239.2 2.0 6.9 4.06 Italy Kidderminister 26/11/98 Aug 00 24/08/98 30/11/98 64 465.3 49.2 416.1 2.5 6.8 4.06 Italy Kidderminister 26/11/98 Aug 00 24/08/98 30/11/98 61 469.3 40.2 416.1 2.5 6.8 4.04 Italy Kidderminister 26/11/98 Aug 00 <td< td=""><td>3B</td><td>Italy</td><td>Evesham</td><td>26/11/98</td><td>Sep 00</td><td></td><td>03/12/98</td><td>106</td><td>467.4</td><td>54.1</td><td>413.2</td><td>6.5</td><td>10.8</td><td>4.13</td><td>83</td></td<>	3B	Italy	Evesham	26/11/98	Sep 00		03/12/98	106	467.4	54.1	413.2	6.5	10.8	4.13	83
ltaly Kidderminster 27/11/98 Dec 99 19/09/97 30/11/98 437 277.6 45.0 232.6 2.5 5.5 4.14 Italy Kidderminster 27/11/98 Dec 99 19/09/97 33/12/98 440 282.5 41.5 241.0 1.0 4.8 4.24 Italy Kidderminster 27/11/98 Dec 99 13/10/96 30/11/98 780 283.7 38.2 245.5 0.0 6.9 4.15 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 98 465.3 49.2 416.1 2.5 6.8 4.24 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 61 460.1 40.2 416.1 2.5 6.8 4.24 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 61 460.1 6.8 4.0 6.8 4.0 Italy Kidderminster 26/11/98 Mar		Italy	Evesham	26/11/98	Sep 00										
Italy Kidderminster 27/11/98 Dec 99 19/09/97 03/12/98 440 282.5 41.5 241.0 1.0 4.8 4.24 Italy Kidderminster 27/11/98 Dec 99 19/09/97 30/11/98 787 277.0 37.8 239.2 2.0 6.9 4.06 Evesham 27/11/98 Dec 99 03/10/96 03/11/98 780 283.7 38.2 245.5 0.0 6.9 4.06 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 98 465.3 49.2 416.1 2.5 6.8 4.24 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 61 465.1 40.2 411.8 2.5 6.8 4.39 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 61 463.1 50.2 412.9 6.8 4.04 Italy Kidderminster 26/11/98 Mar 01 30/0	4A	Italy	Kidderminster	27/11/98	Dec 33	19/09/97	30/11/98	437	277.6	45.0	232.6	2.5	5.5	4.14	7
Italy Kidderminster 27/11/98 Dec 99 19/09/97 Annoted sequence		Italy	Kidderminster	27/11/98	Dec 38	19/09/97	03/12/98	440	282.5	41.5	241.0	1.0	4.8	4.24	30
Evesham 27/11/98 Dec 99 03/10/96 30/11/98 787 277.0 37.8 239.2 2.0 6.9 4.06 Evesham 27/11/98 Dec 99 03/10/96 03/12/98 790 283.7 38.2 245.5 0.0 5.7 4.15 Italy Evesham 27/11/98 Dec 99 03/10/96 30/11/98 98 465.3 49.2 416.1 2.5 6.8 4.24 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 61 463.1 40.2 412.9 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/08/98 30/11/98 64 459.6 50.8 408.8 5.0 8.1 4.04 Italy Kidderminster 26/11/98 Mar 01 30/08/98 30/11/98 70 468.1 50.6 421.9 5.0 4.24 Italy Kidderminster 26/11/98 Mar 01 30/08/98 30/11/98	Ω Ω	Italy	Kidderminster	27/11/98	Dec 99	19/09/97									
Evesham 27/11/98 Dec 99 03/10/96 03/10/96 790 283.7 38.2 245.5 0.0 5.7 4.15 Evesham 27/11/98 Dec 99 03/10/96 30/11/98 98 465.3 49.2 416.1 2.5 7.6 4.24 Italy Kidderminster 26/11/98 Aug 00 24/08/98 03/12/98 101 461.1 49.2 416.1 2.5 7.6 4.24 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 61 463.1 50.2 412.9 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 64 459.6 50.8 408.8 5.0 8.1 4.25 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 64 459.6 50.8 408.8 5.0 8.1 4.25 Italy Evesham 01/12/98 Dec 00 21/09/98	2A		Evesham	27/11/98	Dec 99	03/10/96	30/11/98	787	277.0	37.8	239.2	2.0	6.9	4.06	247
Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 98 465.3 49.2 416.1 2.5 7.6 4.24 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 101 461.1 49.2 416.1 2.5 7.6 4.24 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 61 463.1 50.2 412.9 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 64 459.6 50.8 408.8 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 64 459.6 50.8 408.8 5.0 8.1 4.25 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 74 472.5 50.6 421.9 5.0 4.2 Italy Evesham 01/12/98 Dec 00 </td <td>5B</td> <td></td> <td>Evesham</td> <td>27/11/98</td> <td>Dec 99</td> <td>03/10/96</td> <td>03/12/98</td> <td>790</td> <td>283.7</td> <td>38.2</td> <td>245.5</td> <td>0.0</td> <td>5.7</td> <td>4.15</td> <td>205</td>	5 B		Evesham	27/11/98	Dec 99	03/10/96	03/12/98	790	283.7	38.2	245.5	0.0	5.7	4.15	205
Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 98 465.3 49.2 416.1 2.5 7.6 4.24 Italy Kidderminster 26/11/98 Aug 00 24/08/98 03/12/98 101 461.1 49.2 411.8 2.5 6.8 4.39 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 64 459.6 50.8 408.8 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 64 459.6 50.8 408.8 5.0 8.1 4.25 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 74 459.6 50.8 408.8 5.0 8.1 4.25 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 74 472.5 50.6 421.9 2.5 4.21 Italy Evesham 01/12/98 Dec 00<	ည္သ		Evesham	27/11/98	Dec 38	03/10/96									
Italy Kidderminster 26/11/98 Aug 00 24/08/98 03/12/98 101 461.1 49.2 411.8 2.5 6.8 4.39 Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 61 463.1 50.2 412.9 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 64 459.6 50.8 408.8 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 70 468.1 50.7 417.4 4.0 6.5 4.21 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 468.1 50.6 421.9 5.0 4.2 4.2 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 6.8 4.2 Italy Evesham 01/12/98		Italy	Kidderminster	26/11/98	Aug 00	24/08/98	30/11/98	86	465.3	49.2	416.1	2.5	7.6	4.24	39
Italy Kidderminster 26/11/98 Aug 00 24/08/98 30/11/98 61 463.1 50.2 412.9 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 64 459.6 50.8 408.8 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 70 468.1 50.7 417.4 4.0 6.5 4.21 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 468.1 50.6 421.9 2.5 4.2 4.2 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.6 421.9 2.5 4.2 4.2 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 6.8 4.0 Italy Evesham 01/12/98 Dec 00 </td <td>6B</td> <td>Italy</td> <td>Kidderminster</td> <td>26/11/98</td> <td>Aug 00</td> <td>24/08/98</td> <td>03/12/98</td> <td>101</td> <td>461.1</td> <td>49.2</td> <td>411.8</td> <td>2.5</td> <td>6.8</td> <td>4.39</td> <td>61</td>	6B	Italy	Kidderminster	26/11/98	Aug 00	24/08/98	03/12/98	101	461.1	49.2	411.8	2.5	6.8	4.39	61
Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 61 463.1 50.2 412.9 5.0 7.2 4.04 Italy Kidderminster 26/11/98 Mar 01 30/09/98 03/12/98 64 459.6 50.8 408.8 5.0 8.1 4.25 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 70 468.1 50.7 417.4 4.0 6.5 4.21 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.6 421.9 2.5 4.2 4.2 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00		Italy	Kidderminster	26/11/98	Aug 00	24/08/98									
Italy Kidderminster 26/11/98 Mar 01 30/09/98 03/12/98 64 459.6 50.8 408.8 5.0 8.1 4.25 Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 70 468.1 50.7 417.4 4.0 6.5 4.21 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.6 421.9 2.5 4.2 4.2 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 74 461.4 50.8 410.6 2.0 6.8 4.23 Italy Evesham 01/12/98 Dec 00	7A	Italy	Kidderminster	26/11/98	Mar 01	30/06/98	30/11/98	61	463.1	50.2	412.9	5.0	7.2	4.04	48
Italy Kidderminster 26/11/98 Mar 01 30/09/98 30/11/98 70 468.1 50.7 417.4 4.0 6.5 4.21 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 74 472.5 50.6 421.9 2.5 4.2 4.20 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 74 461.4 50.8 410.6 2.0 6.8 4.23 Italy Evesham 01/12/98 Dec 00 21/09/98 30/12/98 74 461.4 50.8 410.6 2.0 6.8 4.23	7B	Italy	Kidderminster	26/11/98	Mar 01	30/09/98	03/12/98	64	459.6	50.8	408.8	2.0	8.1	4.25	55
Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 74 468.1 50.7 417.4 4.0 6.5 4.21 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 74 472.5 50.6 421.9 2.5 4.2 4.20 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00 21/09/98 33/12/98 74 461.4 50.8 410.6 2.0 6.8 4.23 Italy Evesham 01/12/98 Dec 00 21/09/98 33/12/98 74 461.4 50.8 410.6 2.0 6.8 4.23	7C	Italy	Kidderminster	26/11/98	Mar 01	30/06/98									
Italy Evesham 01/12/98 Dec 00 21/09/98 03/12/98 74 472.5 50.6 421.9 2.5 4.2 4.20 4.20 Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00 21/09/98 03/12/98 74 461.4 50.8 410.6 2.0 6.8 4.23 Italy Evesham 01/12/98 Dec 00 21/09/98 21/09/98 30/12/98 74 461.4 50.8 410.6 2.0 6.8 4.23	8A	Italy	Evesham	01/12/98	Dec 00	21/09/98	30/11/98	20	468.1	50.7	417.4	4.0	6.5	4.21	43
Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00 21/09/98 03/12/98 74 461.4 50.8 410.6 2.0 6.8 4.23 Italy Evesham 01/12/98 Dec 00 21/09/98 31/09/98<	8B	Italy	Evesham	01/12/98	Dec 00	21/09/98	03/12/98	74	472.5	50.6	421.9	2.5	4.2	4.20	47
Italy Evesham 01/12/98 Dec 00 21/09/98 30/11/98 70 465.2 50.7 414.6 4.0 7.1 4.09 Italy Evesham 01/12/98 Dec 00 21/09/98 03/12/98 74 461.4 50.8 410.6 2.0 6.8 4.23 Italy Evesham 01/12/98 Dec 00 21/09/98 21/09/98 1	8C	Italy	Evesham	01/12/98	Dec 00	21/09/98									
Italy Evesham 01/12/98 Dec 00 21/09/98 03/12/98 74 461.4 50.8 410.6 2.0 6.8 4.23 Italy Evesham 01/12/98 Dec 00 21/09/98 1/09/98 1/00/98 1/0	98	Italy	Evesham	01/12/98	Dec 00	21/09/98	30/11/98	70	465.2	20.7	414.6	4.0	7.1	4.09	43
Italy Evesham 01/12/98 Dec 00	9B	Italy	Evesham	01/12/98	Dec 00	21/09/98	03/12/98	74	461.4	20.8	410.6	2.0	6.8	4.23	43
	9C	Italy	Evesham	01/12/98	Dec 00	21/09/98									

	Ring Can Internal Condition	Light general etching	Light general etching		Light general etching	Light general etching		Light/moderate general etching	Light general etching		Heavy general etching, some areas of exposed alloy/baseplate	Moderate general etching		Light general etching	Light general etching		Light general etching	Light general etching		Fully lacquered can, good condition	Fully lacquered can, good condition		Fully lacquered can, a few small points of corrosion around body	Fully lacquered can, good condition		Light/moderate general etching	Light general etching		Heavy etching, some exposed alloy/baseplate	Heavy etching, areas of exposed alloy/baseplate		Light general etching, small crystal size	Light general etching, small crystal size		Light general etching, small crystal size	Light general etching	
	Neither R	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Internal Finish	One Plain																																				
End	Both Ends Plain																																				
Finish	Partially Plain																																				
Internal Finish	Fully Plain	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×							×	×	×	×	×	×	×	×	×	×	×	×
ody	Fully Lacquered																			×	×	×	×	×	×												
	3 Piece Soldered																																				
Construction	3 Piece Welded	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	2 Piece																																				
	Sample No.	166A	166B	166C	167A	167B	167C	168A	168B	168C	169A	169B	169C	170A	170B	170C	171A	171B	171C	172A	172B	172C	173A	173B	173C	174A	174B	174C	175A	175B	175C	176A	176B	176C	177A	177B	177C

Appendix 4 - Extension - All Cans - Page 5

Construction	2 Dioco	Body	Body Internal Finish	Finish	End Roth Fnds	Internal	Finish	Ring	Can Internal Condition
3 Piece Welded	Soldered	Lacquered	runy Plain	Plain	Plain	Plain	Plain	Pull	
×			×				×		Light general etching, no apparent lacquered side-stripe
×			×				×		Light general etching, no apparent lacquered side-stripe
×			×				×		
×			×				×		Very light general etching
×			×				×		Light general etching
×			×				×		
×			×				×	×	Light general etching
×			×				×	×	General light etching, good condition
×			×				×	×	
×			×				×	×	Light/moderate general etching
×			×				×	×	Light general etching, small tin crystals
×			×				×	×	
×			×				×	×	Light general etching
×			×				×	×	Light/moderate general etching
×			×				×	×	
×			×				×	×	Light general etching
×			×				×	×	Light general etching
×			×				×	×	
×		×					×	×	Fully lacquered can, good condition
×		×					×	×	Fully lacquered can, some corrosion on wrinkle end and side seam
×		×					×	×	
×			×				X		Moderate to heavy etching
×			×				×		Light/moderate general etching
×			×				×		
×			×				×		Very light general etching
×			×				×		Light general etching
×			×				×		
×			×				×		Very light general etching
×			×				×		Very light general etching, no apparent lacquered side-stripe
×			×				×		
×			×				×		Light general etching
×			×				×		Very light general etching
×			×				×		
×			×				×		Light general etching
×			×				×		Very light general etching
×			×				×		





APPENDIX 5.1 GRAPHICAL REPRESENTATION OF DATA ALL CANS (FIGURES 1-6)



Figure 1: All Cans - Tin Content Frequency Distribution

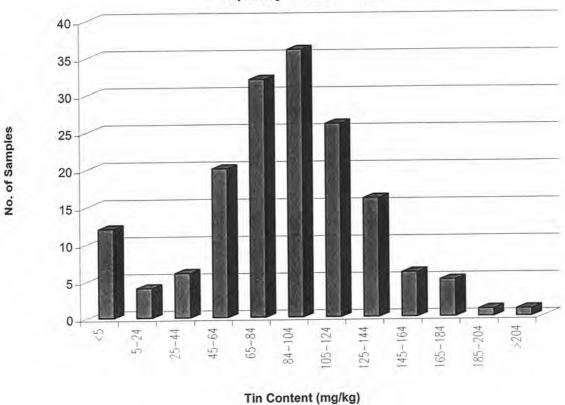


Figure 2: All Cans - Effect of Can Age on Tin Content

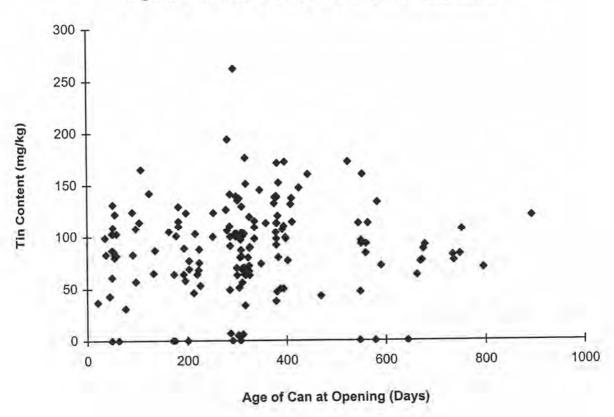


Figure 3: All Cans - Effect of Weight of Contents on Tin Content

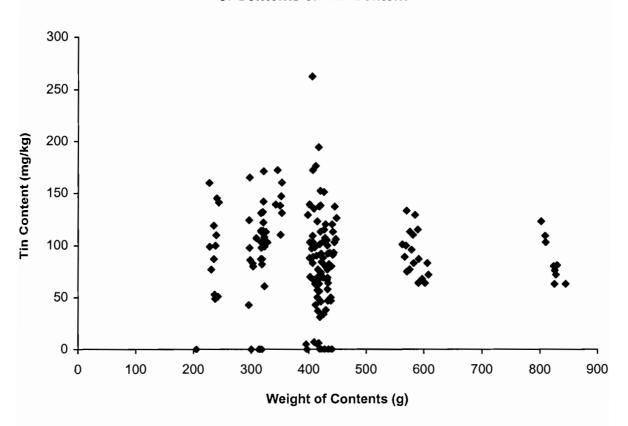
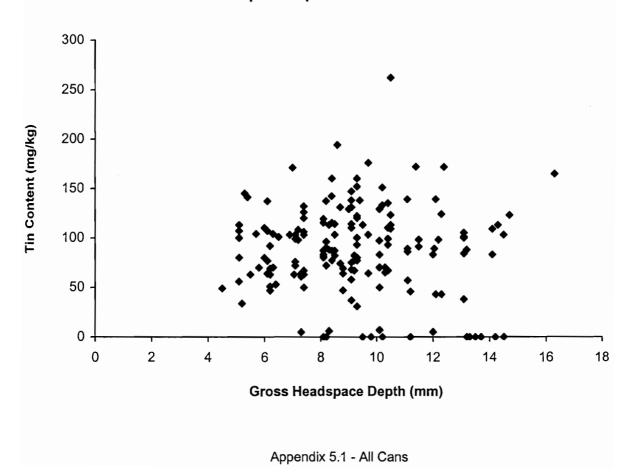


Figure 4: All Cans - Effect of Gross Headspace Depth on Tin Content



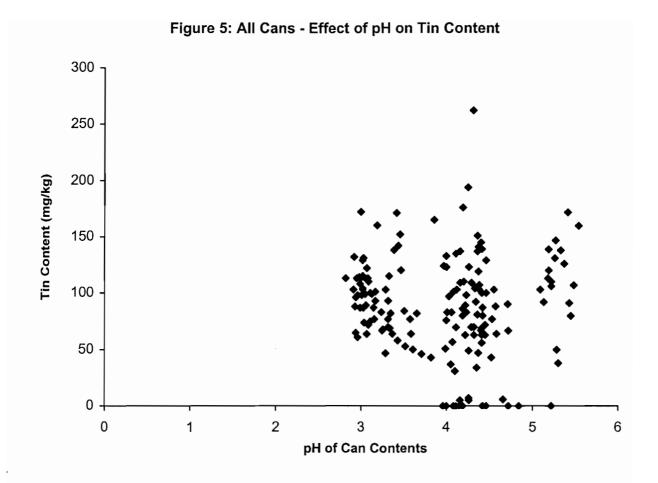
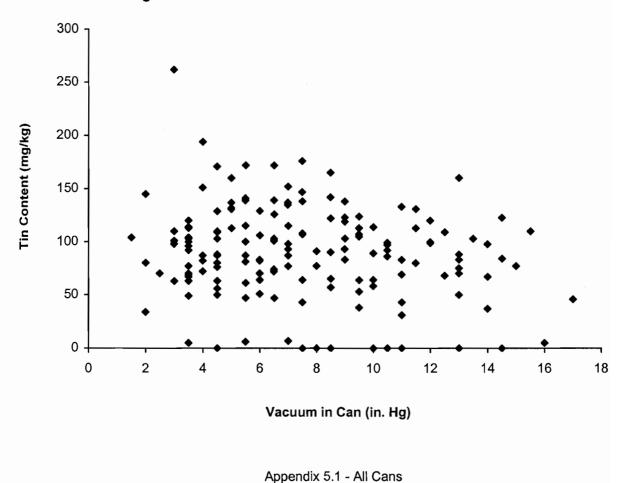


Figure 6: All Cans - Effect of Vacuum on Tin Content





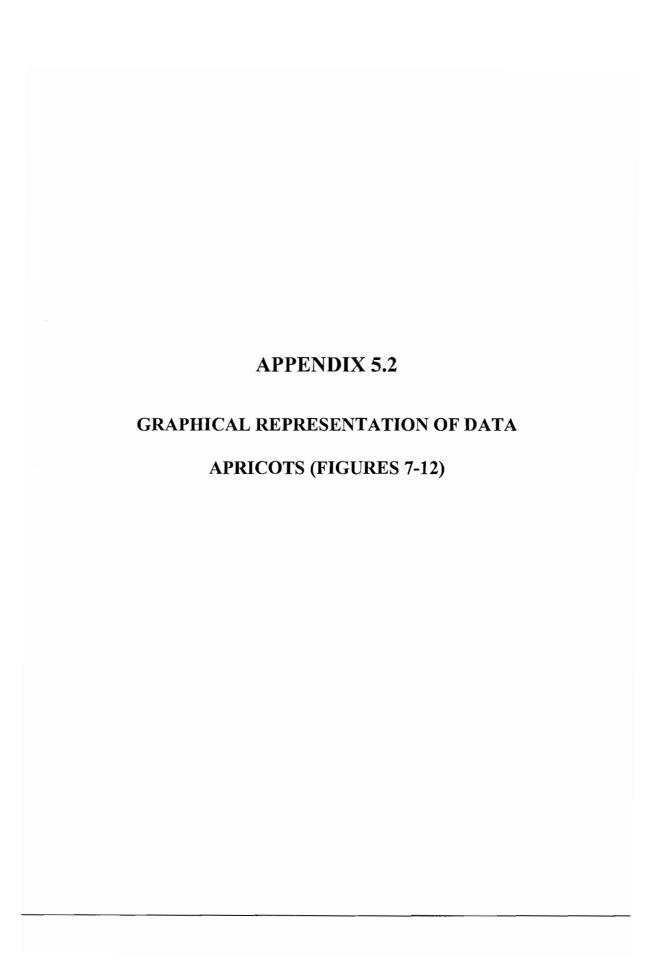




Figure 7: Apricots - Tin Content Frequency Distribution

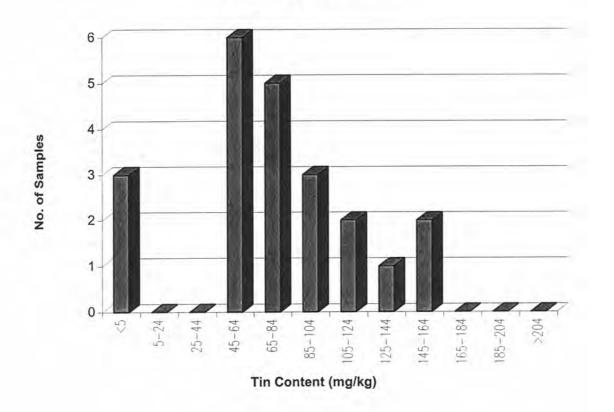
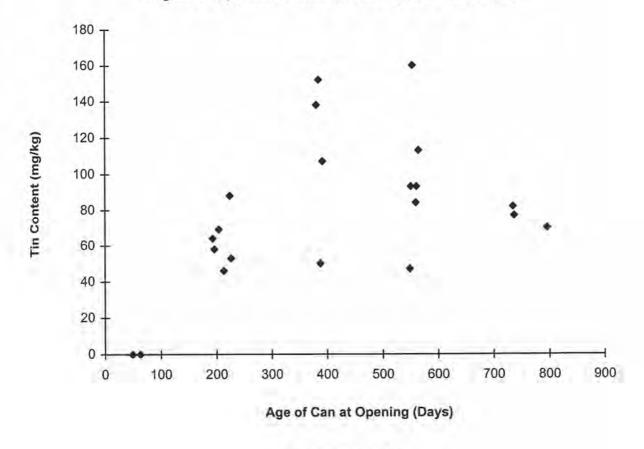


Figure 8: Apricots - Effect of Can Age on Tin Content



Appendix 5.2 - Apricots

Figure 9: Apricots - Effect of Weight of Contents on Tin Content

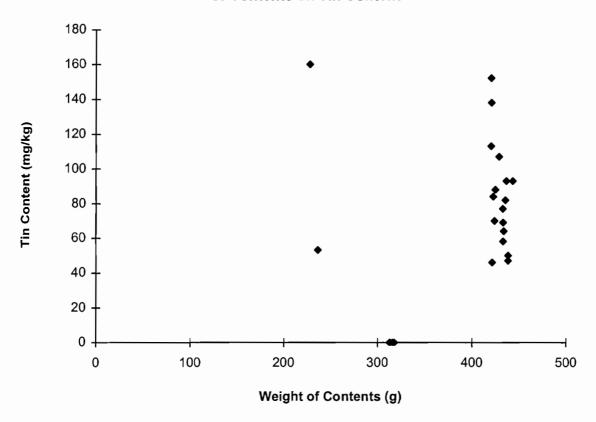
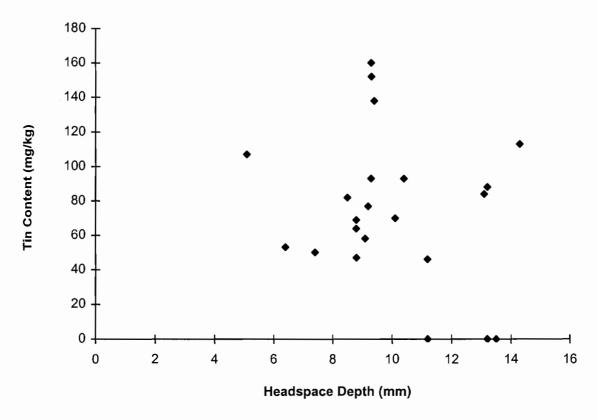


Figure 10: Apricots - Effect of Gross Headspace Depth on Tin Content



Appendix 5.2 - Apricots

Figure 11: Apricots - Effect of pH on Tin Content

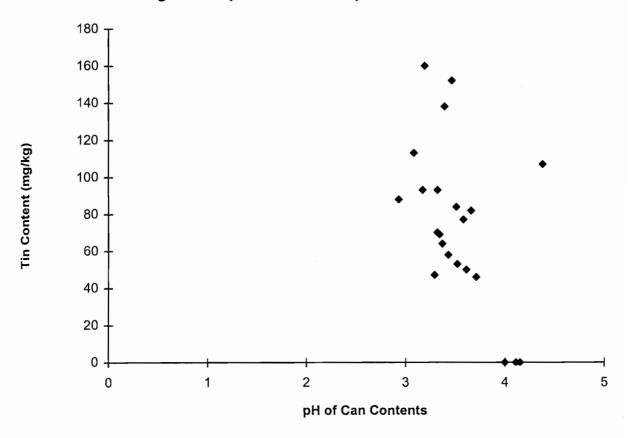
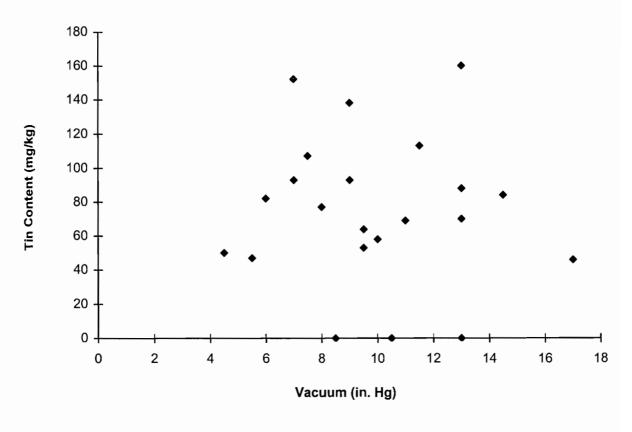


Figure 12: Apricots - Effect of Vacuum on Tin Content



Appendix 5.2 - Apricots



APPENDIX 5.3 GRAPHICAL REPRESENTATION OF DATA ASPARAGUS (FIGURES 13-18)

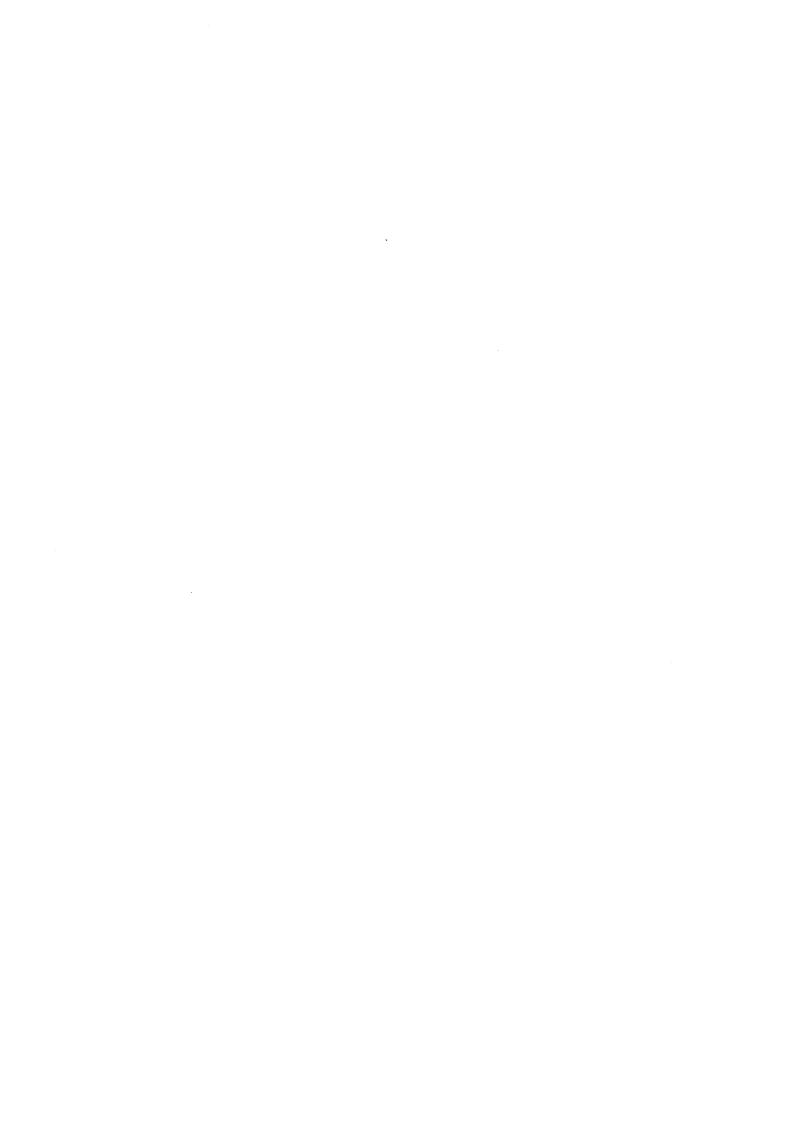
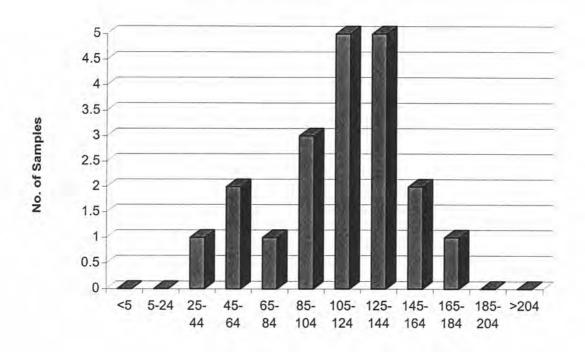
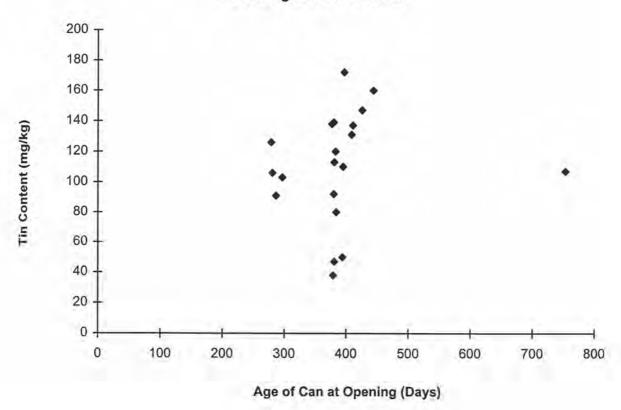


Figure 13: Asparagus - Tin Content Frequency Distribution



Tin Content (mg/kg)

Figure 14: Asparagus - Effect of Can Age on Tin Content



Appendix 5.3 - Asparagus

Figure 15: Asparagus - Effect of Weight of Contents on Tin Weight

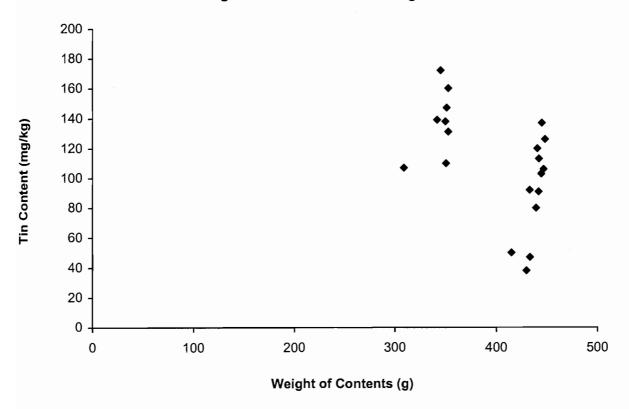
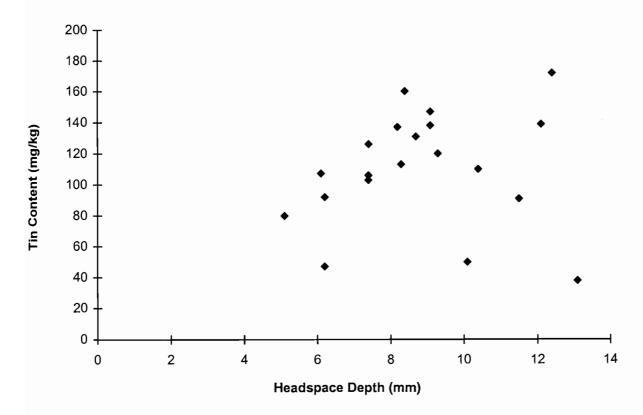


Figure 16: Asparagus- Effect of Gross Headspace Depth on Tin Content



Appendix 5.3 - Asparagus

Figure 17: Asparagus - Effect of pH on Tin Content

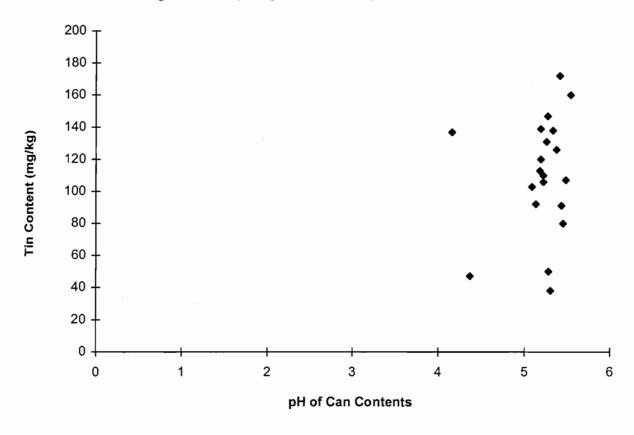
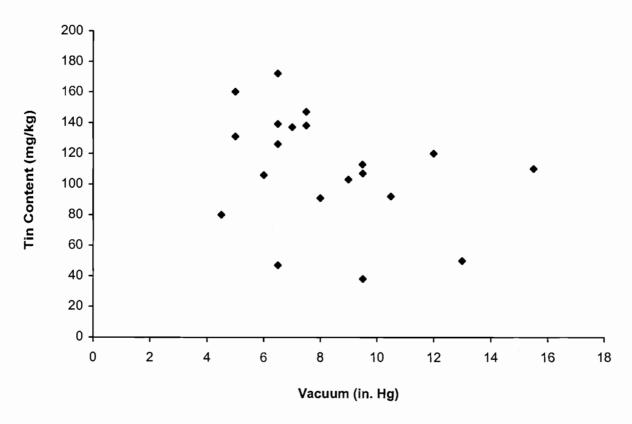


Figure 18: Asparagus - Effect of Vacuum on Tin Content



Appendix 5.3 - Asparagus



APPENDIX 5.4 GRAPHICAL REPRESENTATION OF DATA CANNED TOMATOES (FIGURES 19-25)



Figure 19: Canned Tomatoes - Tin Content Frequency Distribution

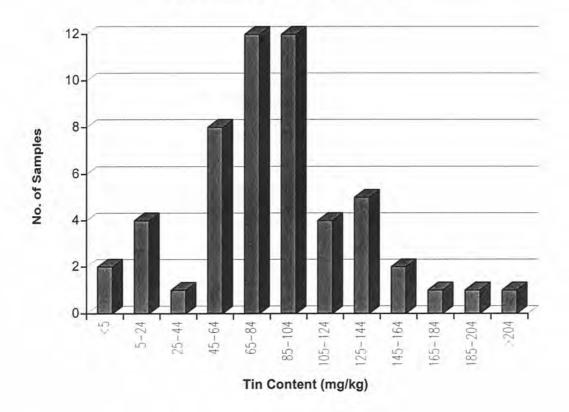


Figure 20: Canned Tomatoes -Effect of Can Age on Tin Content Tin Content (mg/kg) Age of Can at Opening (Days)

Figure 21: Canned Tomatoes - Effect of Weight of Contents on Tin Content

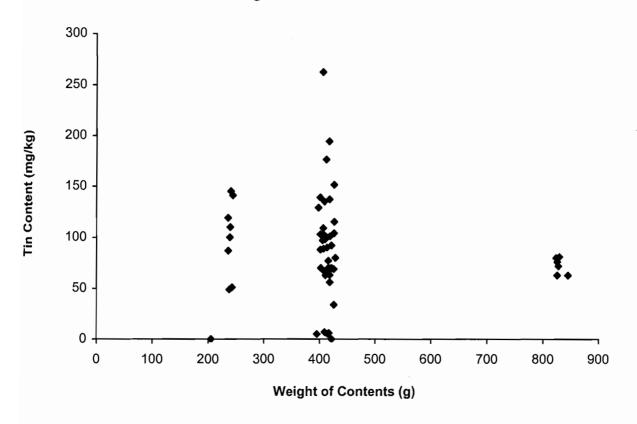
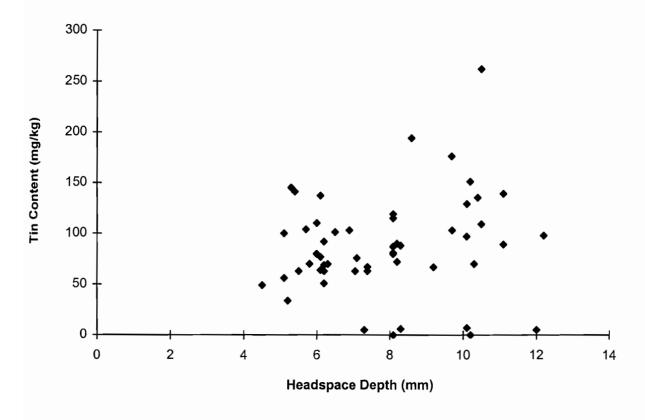


Figure 22: Canned Tomatoes - Effect of Gross Headspace Depth on Tin Content



Appendix 5.4 - Canned Tomatoes

Figure 23: Canned Tomatoes - Effect of pH on Tin Content

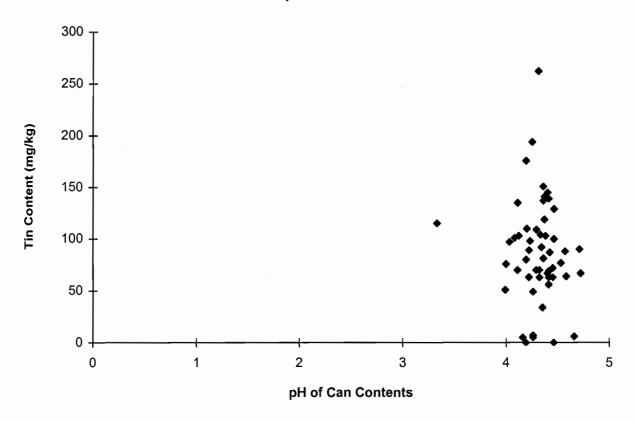
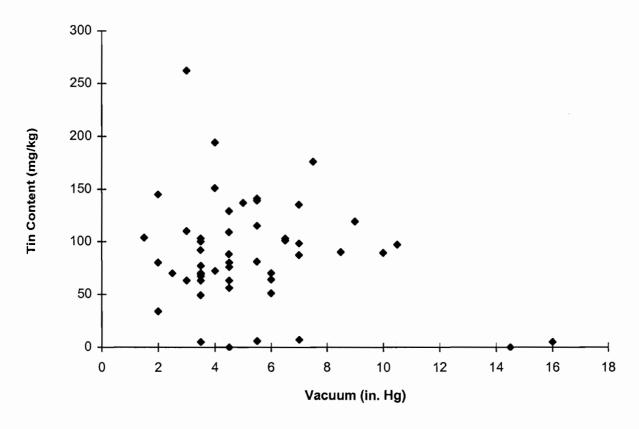
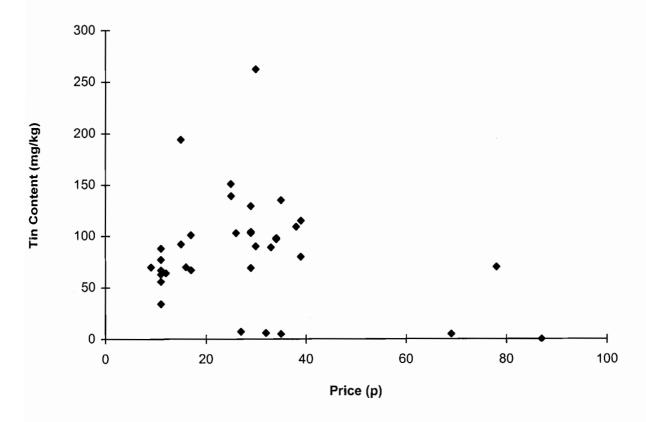


Figure 24: Canned Tomatoes - Effect of Vacuum on Tin Content



Appendix 5.4 - Canned Tomatoes

Figure 25: Tin Content of 400g Canned Tomatoes in Relation to Price



APPENDIX 5.5 GRAPHICAL REPRESENTATION OF DATA GOOSEBERRIES (FIGURES 26-31)



Figure 26: Gooseberries - Tin Content Frequency Distribution

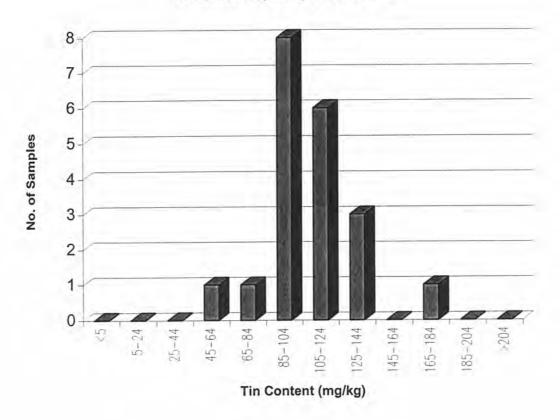
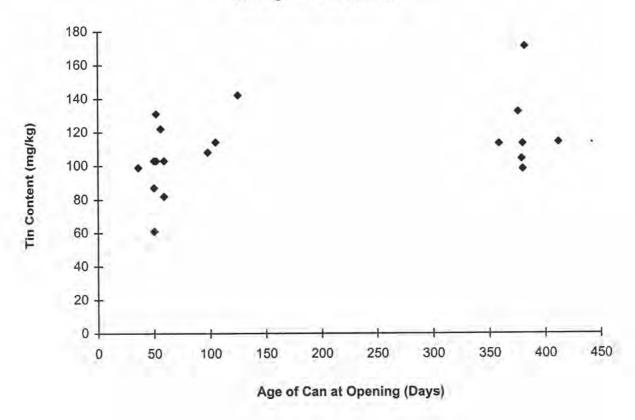


Figure 27: Gooseberries - Effect of Can Age on Tin Content



Appendix 5.5 - Gooseberries

Figure 28: Gooseberries - Effect of Weight of Contents on Tin Content

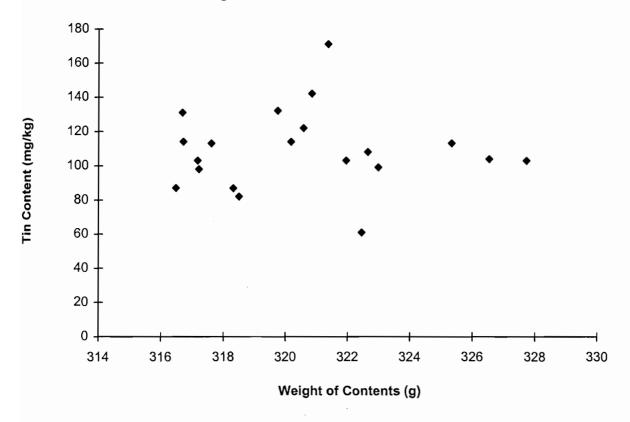
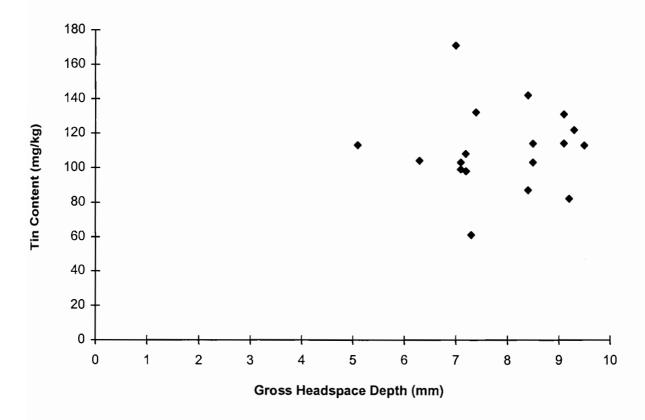


Figure 29: Gooseberries - Effect of Gross Headspace Depth on Tin Content



Appendix 5.5 - Gooseberries

Figure 30: Gooseberries - Effect of pH on Tin Content

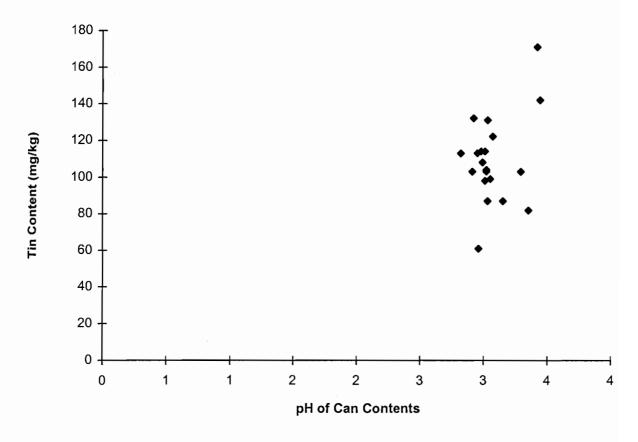
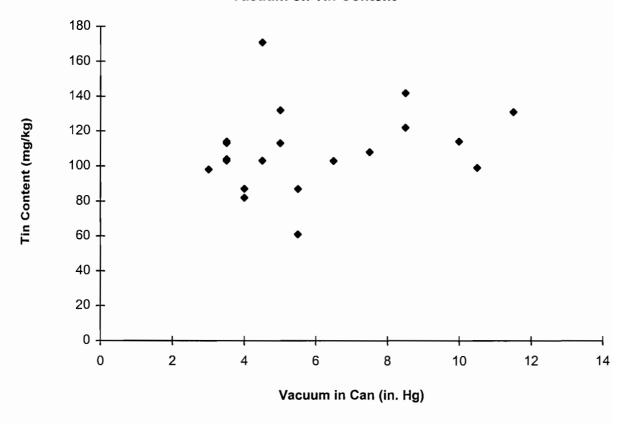


Figure 31: Gooseberries - Effect of Vacuum on Tin Content



Appendix 5.5 - Gooseberries



APPENDIX 5.6 GRAPHICAL REPRESENTATION OF DATA **GRAPEFRUIT (FIGURES 32-37)**



Figure 32: Grapefruit - Tin Content Frequency Distribution

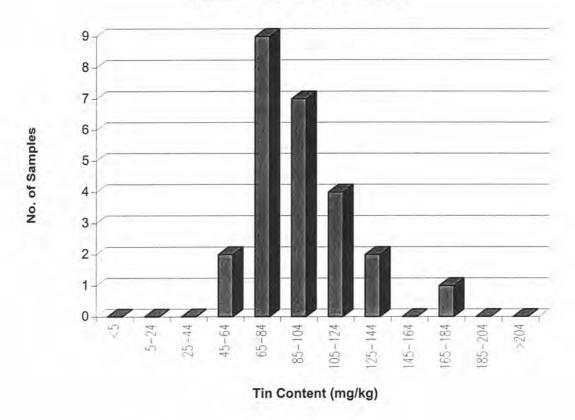


Figure 33: Grapefruit - Effect of Can Age on Tin Content

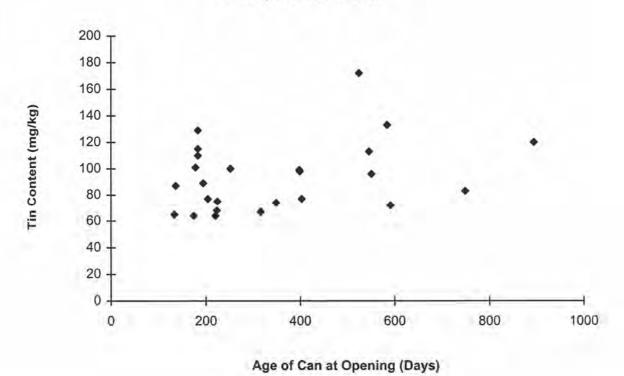


Figure 34: Grapefruit - Effect of Weight of Contents on Tin Content

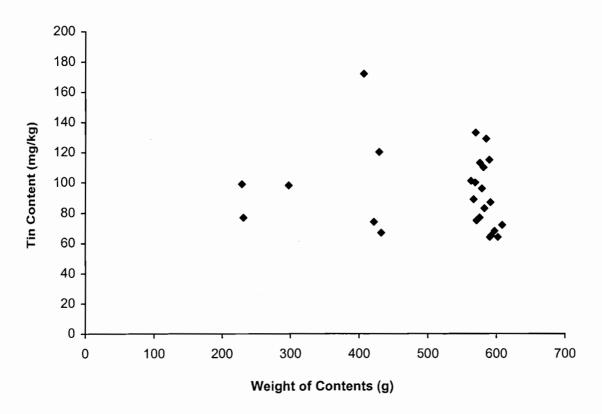
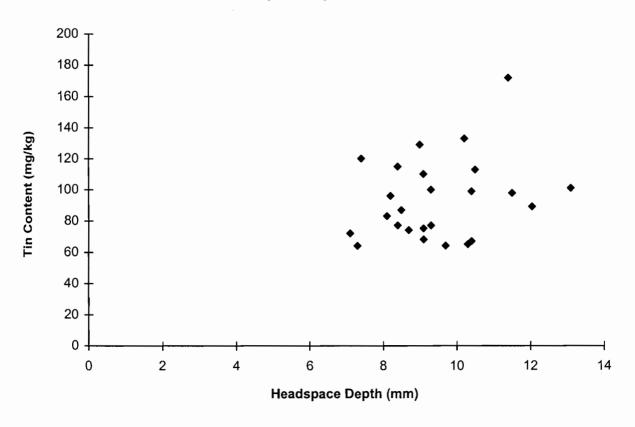


Figure 35: Grapefruit - Effect of Gross Headspace Depth on Tin Content



Appendix 5.6 - Grapefruit

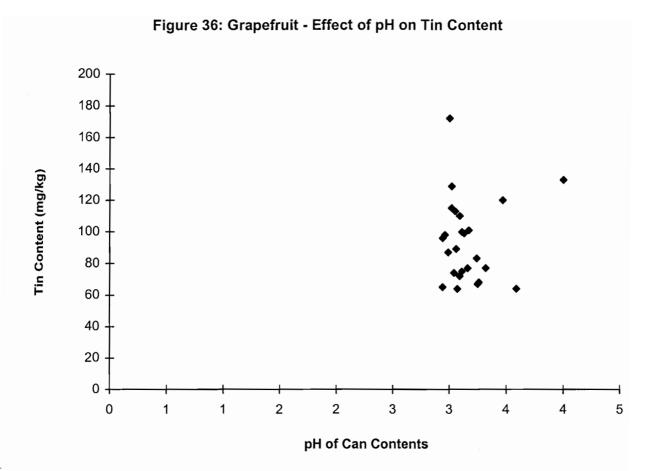
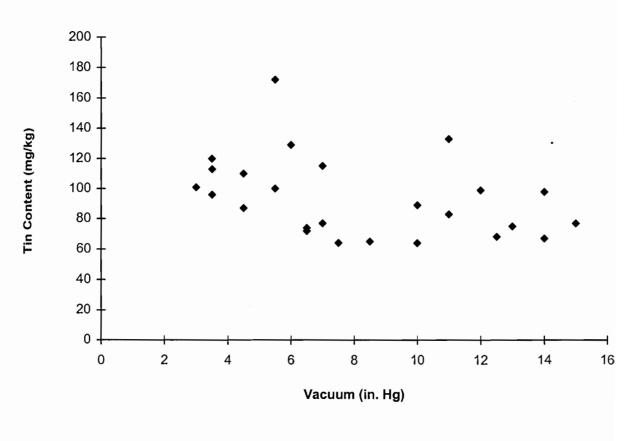
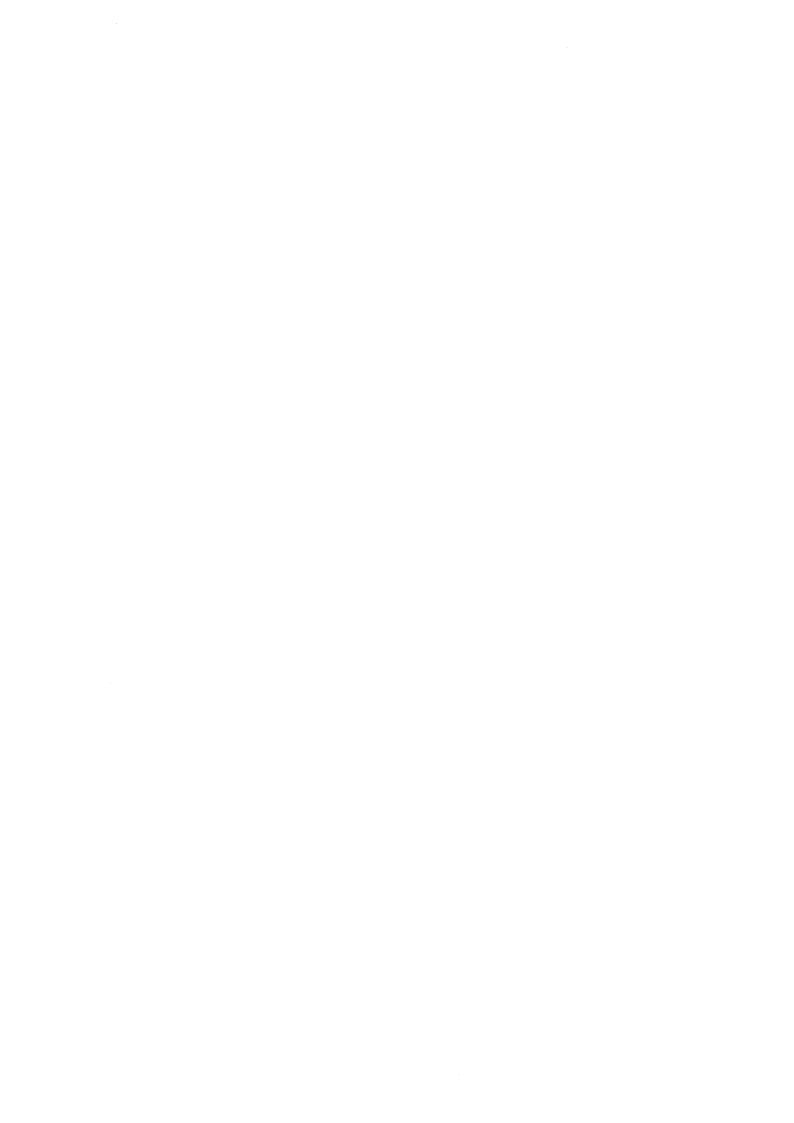


Figure 37: Grapefruit - Effect of Vacuum on Tin Content



Appendix 5.6 - Grapefruit



APPENDIX 5.7 GRAPHICAL REPRESENTATION OF DATA TOMATO SOUP (FIGURES 38-43)



Figure 38: Tomato Soup - Tin Content Frequency Distribution

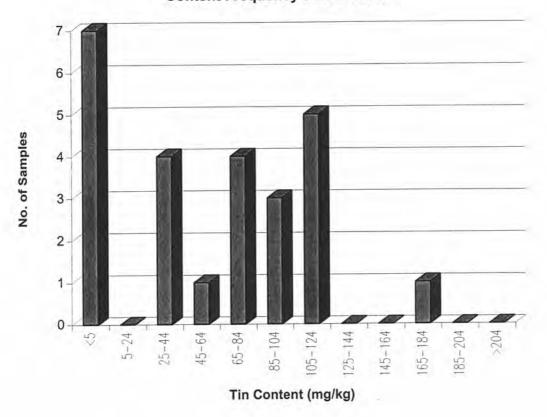
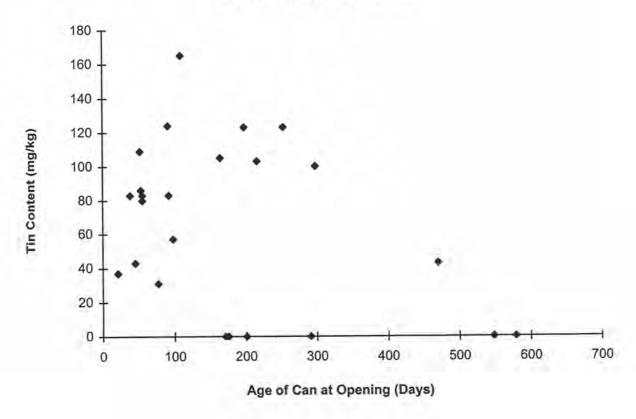


Figure 39: Tomato Soup - Effect of Can Age on Tin Content



Appendix 5.7 - Tomato Soup

Figure 40: Tomato Soup - Effect of Weight of Contents on Tin Content

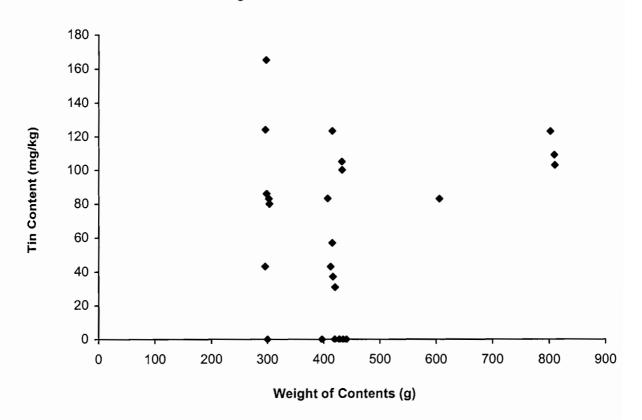
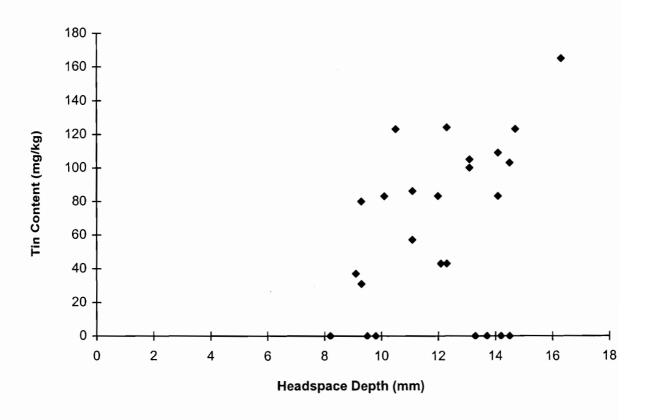


Figure 41: Tomato Soup - Effect of Gross Headspace Depth on Tin Content



Appendix 5.7 - Tomato Soup

Figure 42: Tomato Soup - Effect of pH on Tin Content

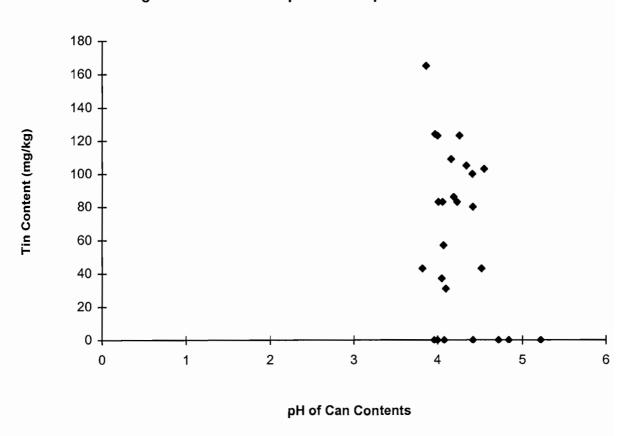
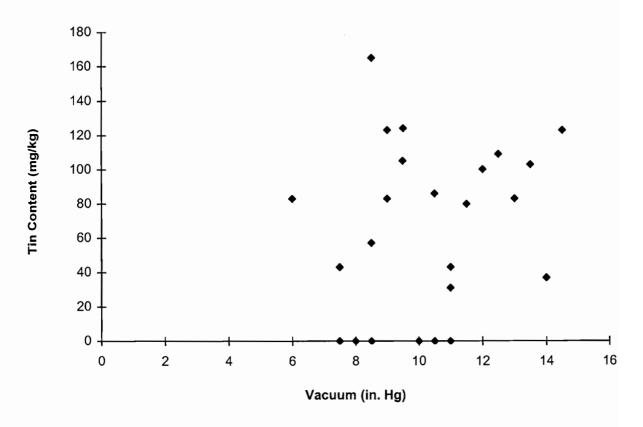


Figure 43: Tomato Soup - Effect of Vacuum on Tin Content



Appendix 5.7 - Tomato Soup

APPENDIX 5.8 GRAPHICAL REPRESENTATION OF DATA EXTENSION (FIGURES 44-50)



Figure 44: Tin Content Frequency Distribution

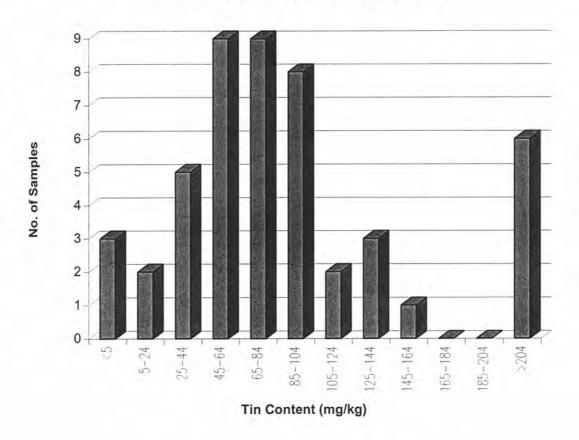


Figure 45: Effect of pH on Tin Content

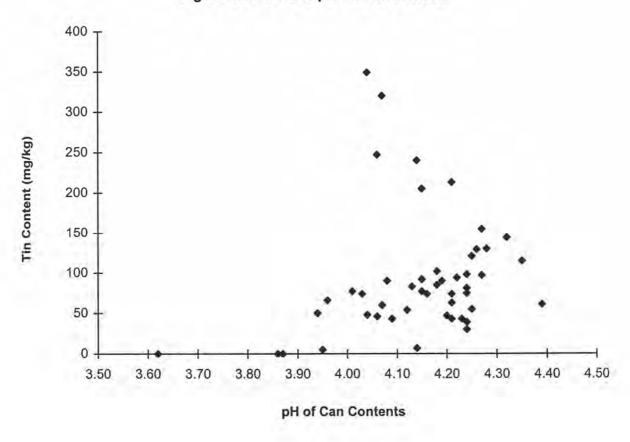


Figure 46: Effect of Vacuum on Tin Content

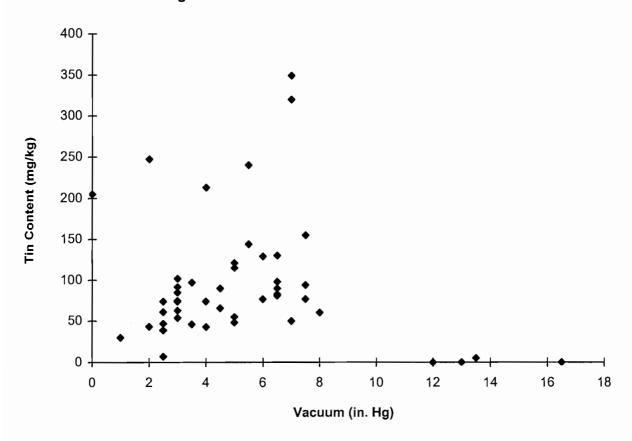


Figure 47: Effect of Weight of Contents on Tin Content

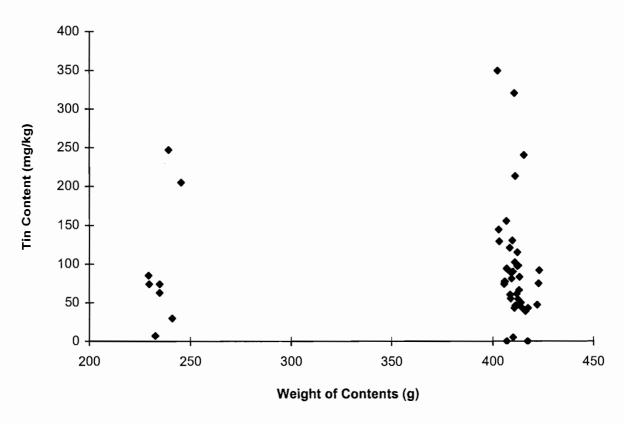


Figure 48: Effect of Gross Headspace Depth on Tin Content

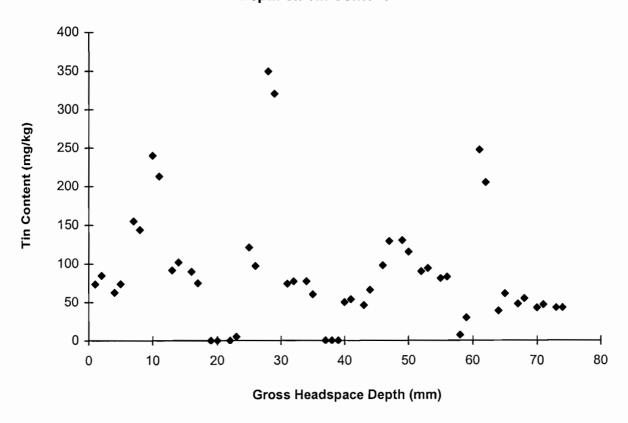


Figure 49: Effect of Can Age on Tin Content

