



2021 Opposition/Validity/Novelty Search - Chemistry

Sample Answer

[This document exemplifies how to interpret the search request, the preparation and gathering keywords and patent classes and conducting a sample search including comments of how and why using search statements.]

Imagine the date is 25th August 2007 and you have just received an email from a company patent attorney asking for an urgent search for a possible opposition against EP1408776. Unfortunately, the attorney is out on business and would like to discuss your progress on their return in a week's time.

Here is the patent family in PatBase:

Title: [EN] NOVEL FOOD PRODUCTS CONTAINING BETAINE

Abstract: Source: US2003017241A [EN] The present invention is directed to food or nutritional products containing betaine. Also disclosed are methods for lowering the activity of water (Aomega) and retarding microbial spoilage in an intermediate food or nutritional product, comprising including betaine and a humectant in said food or nutritional product.

Classifications: [Classification Explorer](#)

International (IPC 8-9): A23L1/30 A23L1/305 A23L1/308 A23L1/31 (Advanced/Invention)

International (IPC 1-7): A23L1/0562 A23L1/30 A23L1/305 A23L1/31 C12H1/10

European: A23L1/30 A23L1/305C A23L1/305D A23L1/308K K23V2/00

US: 426/321 426/321P 426/656 426/804

Publication number	Publication date	Application number	Application date
AT354289 E	20070315	AT20020782478T	20020408
AU2002307197 BB	20061102	AU20020307197	20020408
DE60218313 D1	20070405	DE20026018313	20020408
DK1408776 T3	20070423	DK20020782478T	20020408
EP1408776 A1	20040421	EP20020782478	20020408
EP1408776 A4	20050601	EP20020782478	20020408
EP1408776 B1	20070221	EP20020782478	20020408
MXPA04000149 A1	20050606	MX2004PA00149	20040107
PT1408776 T	20070531	PT20020782478T	20020408
US2003017241 AA	20030123	US20010897084	20010703
US2003108645 AA	20030612	US20030341114	20030113
US6531171 BB	20030311	US20010897084	20010703
WO03003856 A1	20030116	WO2002US11055	20020408

Priority: [Priority Map](#)

US20010897084 20010703 WO2002US11055 20020408 US20030341114 20030113

Assignee(s): (std):

LAM DENISE W ; NBTY IMC ; NBTY INC ; ARMAND ANDREE ; NUTRICIA USA INC ; RITTMANIC STEVE ; VANWINKLE SAMINA

Assignee(s):

NUMICO U INC 6111 BROKEN SOU SA ; NUMICO USA INC ; NUTRICIA U INC 6111 BROKEN SOU SA

Inventor(s): (std):

LAM DENISE W ; RITTMANIC STEVE ; SAMINA VANWINKLE ; ARMAND ANDREE ; VANWINKLE SAMINA

As with any opposition the 1st thing I would do is discuss the patent with my patent attorney. I would like to know which claim(s) are a problem – or in some cases whether actually limiting the scope of some claims is all that is needed. (This patent actually has 3 independent claims 1, 22 and 23).

For this exercise I have assumed that the request is to help invalidate claim 1.

I would also look up the EPO file wrapper for this patent as this might tell me:

- If the patent is entitled to its priority date, or if it relies on material added later in the priority year;
- More information about the actual invention behind the claims

If the patent has to rely on a later date for its priority this gives an additional period within which I can find relevant prior art.

The invention itself may give me additional search terms or even alternative search questions to help me find useful prior art.

In this case I do not have time to check the file wrapper so I will assume that the patent is only entitled to claim priority from its filing date. This means that rather than looking for documents with dates before the priority date of 3rd July 2001 and I can select items dated before 8th April 2002. (It is always wise to include items in my results that are later shown not to be usable than to exclude potentially valuable material at the search stage if the actual priority date has not been confirmed).

This means that any document I retrieve with a publication date before 8th April 2002 can be used as a Novelty hit or as part of an Inventive Step attack. Inventive Step means an invention is obvious if the combination of two (or more) disclosures would have been reasonable for a person familiar with the art but with no imagination. Patent documents with a priority date before 8th April 2002 but with a later publication date could also be used as a Novelty hit if the patent family included an EP or European national country filing.

I next look at the patent family in PatBase:

Title: [EN] NOVEL FOOD PRODUCTS CONTAINING BETAININE

Abstract: Source: US2003017241 AA [EN] The present invention is directed to food or nutritional products containing betaine. Also disclosed are methods for lowering the activity of water (A omega) and retarding microbial spoilage in an intermediate food or nutritional product, comprising including betaine and a humectant in said food or nutritional product.

Classifications: Classification Explorer

International (IPC 8-9): A23L1/30 A23L1/305 A23L1/308 A23L1/31 A23L13/00

International (IPC 1-7): A23L1/0562 A23L1/30 A23L1/305 A23L1/31 C12H1/10

CPC: A23L33/10 A23L33/185 A23L33/19 A23L33/28 A23V2002/00 Y10S426/804

US: 426/321 426/321P 426/656 426/804

Family: Family Explorer

Publication number	Publication date	Application number	Application date
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AT354289 E	20070315	AT20020782478T	20020408
AU2002307197 AA	20030121	AU20020307197	20020408
AU2002307197 BB	20061102	AU20020307197	20020408
DE60218313 D1	20070405	DE20026018313T	20020408
DE60218313 T2	20080103	DE20026018313T	20020408
DK1408776 T3	20070423	DK20020782478T	20020408
EP1408776 A1	20040421	EP20020782478	20020408
EP1408776 A4	20050601	EP20020782478	20020408
EP1408776 B1	20070221	EP20020782478	20020408
ES2282487 T3	20071016	ES20020782478T	20020408
MXPA04000149 A1	20050606	MX2004PA00149	20020408
PT1408776 T	20070531	PT20020782478T	20020408
US2003017241 AA	20030123	US20010897084	20010703
US2003108645 AA	20030612	US20030341114	20030113
US6531171 BB	20030311	US20010897084	20010703
WO03003856 A1	20030116	WO2002US11055	20020408

Priority: Priority Map

US20010897084 20010703 WO2002US11055 20020408 US20030341114 20030113

Probable Assignee: NBTY INC 

Assignee(s): (std): NBTY IMC ; NBTY INC ; NUTRICIA USA INC

Assignee(s): NUMICO U INC 6111 BROKEN SOU SA ; NUMICO USA INC ; NUTRICIA U INC 6111 BROKEN SOU SA

Inventor(s): (std): ARMAND ANDREE ; LAM DENISE W ; RITTMANIC STEVE ; SAMINA VANWINKLE ; VANWINKLE SAMINA

This family also includes 2 US equivalent applications. In a real case I might compare these claims and if similar look through the US file wrappers for possible prior art. The later application US 2003/0108645 was abandoned in 2005 before the EP granted so might be more helpful. However, the presence of relevant US art does not necessarily mean that this could be used for an EP opposition.

The patent family has been classified with a number of codes that might be useful for my search:

IPC/CPC codes

- A23L1/30:** . Modifying nutritive qualities of foods; Dietetic products **containing additives**
- A23L1/305:** . **Modifying nutritive qualities of foods; Dietetic products containing** Amino acids, peptides or proteins
- A23L1/308:** . **Modifying nutritive qualities of foods; Dietetic products** . Addition of substantially indigestible substances, e.g. dietary fibres
- A23L1/31:** . Meat products; Meat meal

CPC Codes

- A23L33/185:** . **Modifying nutritive qualities of foods; Dietetic products containing Vegetable** proteins
- A23L33/19:** . **Modifying nutritive qualities of foods; Dietetic products containing Dairy** proteins

A23V2002/00: Food compositions, function of food ingredients or processes for food or foodstuffs

US National Codes

- 426/321 **INHIBITING CHEMICAL OR PHYSICAL CHANGE OF FOOD BY CONTACT WITH A CHANGE INHIBITING CHEMICAL AGENT OTHER THAN AN ANTIOXYGEN AGENT**
- 426/656 **(PRODUCTS PER SE, OR PROCESSES OF PREPARING OR TREATING COMPOSITIONS INVOLVING CHEMICAL REACTION BY ADDITION, COMBINING DIVERSE FOOD MATERIAL, OR PERMANENT ADDITIVE) Protein, amino acid, or yeast containing**
- 426/804 **LOW CALORIE, LOW SODIUM OR HYPOALLERGIC Foods**

I next would read the patent to be opposed....

The invention is about the use of "betaine" as an alternative humectant (to glycerine) in food products.

Glycerine adds to the carbohydrate content of food as defined by the FDA but betaine does not.

Also use betaine as a humectant rather than water because this increases the lifetime of foods slowing microbial spoilage caused by higher water levels.

Water level in foods referred to as A_w – water activity

Food products considered for this invention are:

food bars, sticks, pastes, cookies, cakes, pies, breads, cupcakes, muffins, biscuits, candies, prepared snack foods, and the like, either baked or not

Pharmaceutically acceptable humectants (can be a mixture and some can form part of a coating eg for a food bar):

polyhydroxy alcohols, such as glycerine and propylene glycol, sugar alcohols, such as sorbitol, mannitol, isomalt, maltitol, lactitol, and xylitol, and other known humectants such as polydextrose, triacetin and oxidized polyethylene

I have divided the claim

A food or nutritional product comprising, by weight, from about 2 to about 15 % water, from about 1 to about 15 % betaine, from about 5 to about 25 % by weight of a pharmaceutically acceptable humectant, and from about 5 to about 90 % protein other than betaine, based upon the total weight of the food or nutritional product, wherein the A_w of said food or nutritional product is no greater than about 0.90

into the following concepts:

- 1) food or nutritional product
- 2) containing betaine
- 3) pharmaceutically acceptable humectants
- 4) protein (other than betaine)
- 5) A_w of said food or nutritional product is no greater than about 0.90

I will start by concentrating on concepts 1 and 2 – as these form the basis for this invention but fortunately I also believe that these are the easiest concepts to search.

Suitable search codes for Concept 1

IPC/CPC Code A23L – FOODS, FOODSTUFFS, OR NON-ALCOHOLIC BEVERAGES, NOT COVERED BY SUBCLASSES OR ; THEIR PREPARATION OR TREATMENT, e.g. COOKING, MODIFICATION OF NUTRITIVE QUALITIES, PHYSICAL TREATMENT; PRESERVATION OF FOODS OR FOODSTUFFS, IN GENERAL

In fact A23 is an even broader code covering Foods

US Class 426 - FOOD OR EDIBLE MATERIAL: PROCESSES, COMPOSITIONS, AND PRODUCTS

I know that there are many foods companies in Japan – although I don't know if this sort of low carb. product is of interest in Japan – so I need suitable JP F-Terms as well.

A simple PatBase search was tried:

2 TAC=(foods) and CC=(jp) and IC=(a23l)

10561

TAC= text from titles, abstracts or claims of any family member

CC= Publication Country

IC= IPC codes

For these results I selected the More option and Class Analysis/Japanese FTerms at the Theme Code level. This listed 4B018 as the most frequent code clicking on the link I identified the following interesting Themes:

- 4B014: Confectionery
- 4B018: Coloring foods and improving nutritive qualities
- 4B032: Bakery products and manufacturing methods therefor
- 4B035: General preparation and processing of foods
- 4B042: Meat, egg, and fish products
- 4B048: Formation and processing of food products

Suitable search terms for Concept 1

Food or Foods

German and French equivalents (taken from claims) Lebens or alimentaire

Marshmallow, cookies, cakes, pies, breads, cupcakes, muffins, biscuits, candies prepared snack foods – are already covered as a search term by foods above but snacks might be an alternative

nutritional product

Nahrungs(mittel) or nutritionnel

Question – are all nutritional products indexed as foods

I will also do a quick on this In PatBase:

4	ti=((nutritional w3 product*) or Nahrungsmittel or (nutritionnel w3 produit*))	3473	View Browse Hits Optimise more...
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3	ti=((nutritional w3 product*) or Nahrungsmittel or (nutritionnel w3 produit*)) and sc=a23	2250	View Browse Hits Optimise more...
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TI = the title of any family member

SC = Super Code covering IPC, CPC, Japanese and US codes

W3 = terms must be close to each other in either order with a maximum of 3 terms between them

Eg. This retrieves (nutritional and food products) or (produit nutritionnel)

* = truncation symbol allowing for any terms beginning with the specified stem

I then looked at some of Set 4 not in Set 3. Most of the items in this set 5 concerned the packaging or manufacture of foods. However, using the Class Analysis for IPC codes and the subclass did find the following broad code:

A21D: TREATMENT, e.g. PRESERVATION, OF FLOUR OR DOUGH FOR BAKING, e.g. BY ADDITION OF MATERIALS; BAKING; BAKERY PRODUCTS; PRESERVATION THEREOF

Suitable search terms for Concept 2

From paragraph 17 of the patent I found the following terms

Betaine(s)

Trimethylglycine

TMG

Oxyneurine

1-carboxy-N, N, N-trimethylmethanaminium hydroxide

(TMG is likely to have other means than a glycine but will have to wait and see if these are retrieved in a "Foods" set

Betain (German)

Other useful "terms" for betaine include the Chemical Abstract Registry Number.

This can be obtained from the Registry database on STN but as this is a more common material I first looked on Google. The Wikipedia entry for trimethylglycine gave the following CAS number **107-43-7**

The wiki entry also gave me the IUPAC name for this compound **2-trimethylammonioacetate**

Paragraph 17 of the patent tells me that the betaine can be present as the hydrochloride or as the monohydrate. If required I could retrieve the CAS Reg No for these separate compounds on STN's Registry database.

If necessary if searching the Derwent World Patent Index database I could use the Derwent Chemical Registry Number. I would also check if this "common" compound had a Derwent Manual Code.

The wiki entry for trimethylglycine

<https://en.wikipedia.org/wiki/Trimethylglycine>

also tells me that this material occurs naturally in sugar beet and some other natural products. If necessary the search could be expanded to include the use of unprocessed sugar beet in low-calorie foods.

Although I have got the CAS Number for betaine from the internet I still check the Registry database on STN:

```
FILE 'REGISTRY' ENTERED AT 18:58:24 ON 23 SEP 2020
```

```
=> s 107-43-7
```

```
L1          1 107-43-7
              (107-43-7/RN)
```

```
=> d cn str
```

```
L1  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2012 ACS on STN
```

```
CN  Methanaminium, 1-carboxy-N,N,N-trimethyl-, inner salt  (CA INDEX NAME)
```

```
OTHER CA INDEX NAMES:
```

```
CN  Ammonium compounds, substituted, (carboxymethyl)trimethyl-, hydroxide,
     inner salt (7CI)
```

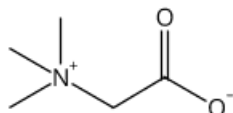
```
CN  Betaine (8CI)
```

```
CN  Methanaminium, 1-carboxy-N,N,N-trimethyl-, hydroxide, inner salt
```

```
OTHER NAMES:
```

```
CN  (Carboxymethyl)trimethylammonium hydroxide inner salt
```

CN (Trimethylammonio)acetate
 CN α -Earleine
 CN 2-(Trimethylazaniumyl)acetate
 CN Abromine
 CN Aminocoat
 CN Aquadew AN 100
 CN Auqadew AN 100
 CN Betafin
 CN Betafin BCR
 CN Betafin BP
 CN Betafin BP 20
 CN Bluestim
 CN Cystadane
 CN Fencaijian
 CN FinnStim
 CN Genecare OSMS BA
 CN Glycine betaine
 CN Glycine, trimethylbetaine
 CN Glycocoll betaine
 CN Glycylbetaine
 CN Greenstim
 CN Intracell
 CN Loramine AMB 13
 CN Lycine
 CN N,N,N-Trimethylglycine
 CN Oxyneurine
 CN Rubrine C
 CN Trimethylbetaine
 CN Trimethylglycine
 CN Trimethylglycocoll



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

=> sel name
 E1 THROUGH E32 ASSIGNED

In addition to searching for the Registry Number it is also possible to search the common chemical names using the SELECT NAME command – above and then searching these Enumbers in other databases. As a personal preference I do not use this command much as it can involve searching for very similar character strings several times. Instead in practice I re-type (offline) any additional names that could be useful to my search.

=> file hcaplus
 FILE 'HCAPLUS' ENTERED AT 18:58:55 ON 23 SEP 2020
 => s e1-e32
 2937488 ALPHA/BI
 3 EARLEINE/BI
 3 .ALPHA.-EARLEINE/BI
 ((ALPHA(W)EARLEINE)/BI)
 103104 "CARBOXYMETHYL"/BI
 21085 "TRIMETHYLAMMONIUM"/BI
 863709 "HYDROXIDE"/BI
 973717 "INNER"/BI

1494593 "SALT"/BI
3 "(CARBOXYMETHYL)TRIMETHYLAMMONIUM HYDROXIDE INNER SALT"/BI
(("CARBOXYMETHYL" (W) "TRIMETHYLAMMONIUM" (W) "HYDROXIDE" (W) "INNER
" (W) "SALT") /BI)
1658 "TRIMETHYLAMMONIO"/BI
1055837 "ACETATE"/BI
6 "(TRIMETHYLAMMONIO) ACETATE"/BI
(("TRIMETHYLAMMONIO" (W) "ACETATE") /BI)
6 ABROMINE/BI
56 AMINOCOAT/BI
35 "AQUADEW"/BI
0 "AN"/BI
3517074 "100"/BI
0 "AQUADEW AN 100"/BI
(("AQUADEW" (W) "AN" (W) "100") /BI)
1 "AUQADEW"/BI
0 "AN"/BI
3517074 "100"/BI
0 "AUQADEW AN 100"/BI
(("AUQADEW" (W) "AN" (W) "100") /BI)
62 "BETAFIN"/BI
23521 "BCR"/BI
2 "BETAFIN BCR"/BI
(("BETAFIN" (W) "BCR") /BI)
62 "BETAFIN"/BI
201513 "BP"/BI
4459247 "20"/BI
19 "BETAFIN BP 20"/BI
(("BETAFIN" (W) "BP" (W) "20") /BI)
62 "BETAFIN"/BI
201513 "BP"/BI
22 "BETAFIN BP"/BI
(("BETAFIN" (W) "BP") /BI)
62 BETAFIN/BI
43790 BETAINE/BI
1 BLUESTIM/BI
6 CYSTADANE/BI
1 FENCAIJIAN/BI
6 FINNSTIM/BI
1 "GENECARE"/BI
118 "OSMS"/BI
223820 "BA"/BI
1 "GENECARE OSMS BA"/BI
(("GENECARE" (W) "OSMS" (W) "BA") /BI)
337758 "GLYCINE"/BI
43790 "BETAINE"/BI
4128 "GLYCINE BETAINE"/BI
(("GLYCINE" (W) "BETAINE") /BI)
337758 "GLYCINE"/BI
69 "TRIMETHYLBETAINE"/BI
5 "GLYCINE, TRIMETHYLBETAINE"/BI
(("GLYCINE" (W) "TRIMETHYLBETAINE") /BI)
1337 "GLYCOCOLL"/BI
43790 "BETAINE"/BI
10 "GLYCOCOLL BETAINE"/BI
(("GLYCOCOLL" (W) "BETAINE") /BI)
7 GLYCYLBETAINE/BI
5 GREENSTIM/BI
236 INTRACELL/BI


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3 "LORAMINE"/BI
3939 "AMB"/BI
1697838 "13"/BI
0 "LORAMINE AMB 13"/BI
  ("LORAMINE" (W) "AMB" (W) "13") /BI
202 LYCINE/BI
5234126 "N"/BI
5234126 "N"/BI
5234126 "N"/BI
1034 "TRIMETHYLGLYCINE"/BI
135 "N,N,N-TRIMETHYLGLYCINE"/BI
  ("N" (W) "N" (W) "N" (W) "TRIMETHYLGLYCINE") /BI
13 OXYNEURINE/BI
4 "RUBRINE"/BI
7256461 "C"/BI
2 "RUBRINE C"/BI
  ("RUBRINE" (W) "C") /BI
69 TRIMETHYLBETAINE/BI
1034 TRIMETHYLGLYCINE/BI
4 TRIMETHYLGLYCOCOLL/BI
16701764 "2"/BI
11 "TRIMETHYLAZANIUMYL"/BI
1055837 "ACETATE"/BI
1 "2-(TRIMETHYLAZANIUMYL) ACETATE"/BI
  ("2" (W) "TRIMETHYLAZANIUMYL" (W) "ACETATE") /BI
L2 45082 (.ALPHA.-EARLEINE/BI OR " (CARBOXYMETHYL) TRIMETHYLAMMONIUM HYDROX
IDE INNER SALT"/BI OR " (TRIMETHYLAMMONIO) ACETATE"/BI OR ABROMINE
/BI OR AMINOCOAT/BI OR "AQUADEW AN 100"/BI OR "AUQADEW AN 100"/B
I OR "BETAFIN BCR"/BI OR "BETAFIN BP 20"/BI OR "BETAFIN BP"/BI
OR BETAFIN/BI OR BETAINE/BI OR BLUESTIM/BI OR CYSTADANE/BI OR
FENCAIJIAN/BI OR FINNSTIM/BI OR "GENECARE OSMS BA"/BI OR "GLYCIN
E BETAINE"/BI OR "GLYCINE, TRIMETHYLBETAINE"/BI OR "GLYCOCOLL
BETAINE"/BI OR GLYCYLBETAINE/BI OR GREENSTIM/BI OR INTRACELL/BI
OR "LORAMINE AMB 13"/BI OR LYCINE/BI OR "N,N,N-TRIMETHYLGLYCINE"
/BI OR OXYNEURINE/BI OR "RUBRINE C"/BI OR TRIMETHYLBETAINE/BI
OR TRIMETHYLGLYCINE/BI OR TRIMETHYLGLYCOCOLL/BI OR "2-(TRIMETHYL
AZANIUMYL) ACETATE"/BI)

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In this case the "N,N,N-TRIMETHYLGLYCINE" entry for example is not helpful – especially since trimethylglycine is also included in the list of terms.

I first search in PatBase combining Concepts 1 and 2 with the appropriate date limit:

7 ((TAC=(Betaine or betain or betaines or Trimethylglycine or TMG or Oxyneurine or trimethylammonioacetate or (trimethylammonio acetate) or Glycylbetaine or Trimethylbetaine or Trimethylglycocoll)) and (PRD<20020408)) 6364

6 ((TAC=(Betaine or betain or betaines or Trimethylglycine or TMG or Oxyneurine)) and (PRD<20020408)) 6356

PRD = priority date – so here I am searching for publications with a priority date before 8th March 2002
The addition of a few extra terms to the betaine list from the CA Registry file has given me just 8 more hits.

10	8 not 9	90
9	((TAC=(Betaine or betain or betaines or Trimethylglycine or TMG or Oxyneurine or trimethylammonioacetate or (trimethylammonio acetate) or Glycylbetaine or Trimethylbetaine or Trimethylglycocoll)) and (PRD<20020408)) and (SC=(a23)))	238
8	((TAC=(Betaine or betain or betaines or Trimethylglycine or TMG or Oxyneurine or trimethylammonioacetate or (trimethylammonio acetate) or Glycylbetaine or Trimethylbetaine or Trimethylglycocoll)) and (PRD<20020408)) and (SC=(a23l)))	148

SC = super code that currently covers IPC, CPC, US and JP codes

The move from the IPC/CPC code A23L to the broader food code A23 gives a further 56 potential hits.

However if I browse Set 10 (see below) it is clear that that hits are not in the area of interest – unless desperate I won't look through these....

1) US2005125860 AA

TRANSGENIC PLANTS EXPRESSING CIVPS OR INTEIN MODIFIED PROTEINS AND RELATED METHOD

2) CN1411735 A

HEALTH-CARE FEED ADDITIVE FOR ANIMALS

3) US2003066231 AA

BIODEGRADABLE FISHING LURE AND MATERIAL

4) WO03011047 A1

ADDITIVE FOR USE IN FEEDING STUFF OR DRINKING WATER

5) US2003031786 AA

PROCESS TO COAT GRANULAR AND POWDERED MATERIALS

6) KR20020060392 A

FISHING BAIT

7) US6579904 BA

PROCESS FOR MAKING **BETAINE** TRANSITION METAL COMPLEXES FOR USE IN ANIMAL FEED SUPPLEMENTS AND COMPOSITIONS THEREOF

I next expanded the codes I used to describe Concept 1 and then replaced the code search with a term search.

13	((TAC=((Betaine or betain or betaines or Trimethylglycine or TMG or Oxyneurine or trimethylammonioacetate or (trimethylammonio acetate) or Glycylbetaine or Trimethylbetaine or Trimethylglycocoll)) and ((nutritional w3 product*) or Nahrungsmittel or (nutritionnel w3 produit*))) and (PRD<20020408)))	13
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12	((TAC=((Betaine or betain or betaines or Trimethylglycine or TMG or Oxyneurine or trimethylammonioacetate or (trimethylammonio acetate)	233
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	or Glycylbetaine or Trimethylbetaine or Trimethylglycocol)) and (Food or Foods or Lebens or alimentaire)) and (PRD<20020408)))	
11	((TAC=(Betaine or betain or betaines or Trimethylglycine or TMG or Oxyneurine or trimethylammonioacetate or (trimethylammonio acetate) or Glycylbetaine or Trimethylbetaine or Trimethylglycocol)) and (PRD<20020408)) and (SC=(a23l or 426 or 4B014 or 4B035 or 4B018 or 4B042 or 4B048 or 4b032 or a21d)))	174

I can just search for all the codes using the Super Code field

I have just searched for the broad terms for foods and nutritional products – nutritional food is already covered by “FOOD”. Since the introduction of the latest version of PatBase the command “TAC=((Betaine) and (Food or Foods or Lebens or alimentaire))” retrieves records where BETAINE and the food term are found in the same document.

“TAC=(Betaine) and TAC=(Food or Foods or Lebens or alimentaire)” retrieves records where BETAINE and the food term are found in the same PatBase family.

- 14 (((TAC=((Betaine or betain or betaines or Trimethylglycine or TMG or Oxyneurine or trimethylammonioacetate or (trimethylammonio acetate) or Glycylbetaine or Trimethylbetaine or Trimethylglycocol)) and ((nutritional w3 product*) or Nahrungsmittel or (nutritionnel w3 produit*) or nutraceutical*)) and (PRD<20020408)))

20

Whilst this last search was running I realised that I could use the alternative term nutraceuticals

The results of sets 11, 12 and 14 were then combined – giving me 320 results as Set 15

The results set still includes many items that look less promising:

1) US2003186827 AA

REMOVING STUBBORN MILDEW STAIN

2) US2006165815 AA

CHOLINE-SILICIC ACID COMPLEX WITH OSMOLYTES AND DIVALENT TRACE ELEMENTS

3) JP2003261445 A2

AGENT FOR SUPPRESSING NEUTRAL FAT LEVEL IN BLOOD

4) JP2003204779 A2

ALCOHOL-CONTAINING **FOOD**

5) US2005125860 AA

TRANSGENIC PLANTS EXPRESSING CIVPS OR INTEIN MODIFIED PROTEINS AND RELATED METHOD

6) US2003182160 AA

METHOD AND ARRANGEMENT FOR ARRANGING AN INFORMATION SERVICE TO DETERMINE NUTRITION AND/OR MEDICATION

But I would use the Hits to check for the context of the selected terms. The patent to be opposed was no 23 in this list.

As the nutritional product sets 13 and 14 only have a few hits I might look at this before viewing the full list in Set 15.

The document

Family number: 28451977 (CA2353187A)

Title: [EN] NOVEL FOOD PRODUCTS CONTAINING **BETAINE**

Looks potentially interesting – but CA only and published in 2003 so not relevant. On closer examination this appears to be the same invention as EP 1408776 with the same inventors but different assignee.

Other options to expand my search are the list of specific products for Concept 2 that I have listed above. Use of the more generic terms ZWITTERIONIC or AMPHOTERIC for betaine is also a possibility.

My more likely approach would be to use the more specific food products listed above (on p4) – this could also limit the larger set of 320.

17	15 and 16	36
16	(((TAC=(Betaine or betain or betaines or Trimethylglycine or TMG or Oxynurine or trimethylammonioacetate or (trimethylammonio acetate) or Glycylbetaine or Trimethylbetaine or Trimethylglycocol)) and (PRD<20020408)) and (ft=(Marshmallow* or cookie* or cakes or pies or breads or cupcake* or muffin* or biscuit* or candies or candy)))	160

As I have not got time I will also quickly look at how I might search in other databases. Suitable sources for this search (on STN) would be the Chemical Abstracts, Derwent World Patent Index and Food Science Technology Abstracts. Before starting an opposition search I look to see how the databases I am searching have indexed the patent of concern – so for the HCAPLUS database:

=> e ep1408776/pn

This is the EXPAND command in STN – which I have limited to the patent number field /PN (Without specifying a field this would select terms from the BASIC index which varies database to database but in the CAS files is the TITLE(TI), ABSTRACT(AB), index Terms (IT and ST)).

```
E1      1      EP1408774/PN
E2      1      EP1408775/PN
E3      1  --> EP1408776/PN
E4      1      EP1408777/PN
E5      1      EP1408778/PN
E6      1      EP1408779/PN
E7      1      EP1408780/PN
E8      1      EP1408781/PN
E9      1      EP1408782/PN
E10     1      EP1408783/PN
E11     1      EP1408790/PN
E12     1      EP14088/PN
```

=> s e3

```
L3      1 EP1408776/PN
```

I have SELECTed item E3 from this index

=> set roles off

SET COMMAND COMPLETED

CAS include ROLES with many of their Index Term entries

I have chosen to exclude this from the displayed results using a SET command

=> d l3 sbib abs it

This displays the bibliographic details, abstract and Index Terms fields

```
L3 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2012 ACS on STN
AN 2003:42050 HCAPLUS Full-text
DN 138:72304
TI Novel food products containing betaine
IN Armand, Andree; Lam, Denise W.; Rittmanic, Steve; Vanwinkle, Samina
PA Nutricia USA, Inc., USA
SO PCT Int. Appl., 25 pp.
   CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
PATENT NO.          KIND    DATE          APPLICATION NO.    DATE
-----
PI WO 2003003856      A1     20030116      WO 2002-US11055    20020408
   W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
     CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
     GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
     LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
     PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
     UA, UG, UZ, VN, YU, ZA, ZM, ZW
   RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
     CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
     BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 20030017241      A1     20030123      US 2001-897084     20010703
US 6531171          B2     20030311
AU 2002307197      A1     20030121      AU 2002-307197     20020408
AU 2002307197      B2     20061102
EP 1408776          A1     20040421      EP 2002-782478     20020408 <--
EP 1408776          B1     20070221
   R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
     IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
AT 354289           T      20070315      AT 2002-782478     20020408
PT 1408776          E      20070531      PT 2002-782478     20020408
ES 2282487          T3     20071016      ES 2002-782478     20020408
US 20030108645     A1     20030612      US 2003-341114     20030113
MX 2004000149      A      20050606      MX 2004-149        20040107
PRAI US 2001-897084  A      20010703
      WO 2002-US11055  W      20020408
```

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

```
AB Food or nutritional products containing betaine are suitable for
reduced-carbohydrate diets. Methods for lowering the activity of water
(Aw) and retarding microbial spoilage in an intermediate food or
nutritional product comprise including betaine and a humectant. Thus, a
food bar may contain 2.96% betaine, 9.07% glycerol, 2.04% propylene
glycol, and 4.35% diglyceride, plus proteins and other ingredients.
IT Food
Humectants
(betaine-containing food products)
IT Alditols
Carbohydrates, biological studies
Diglycerides
Monoglycerides
Proteins
(betaine-containing food products)
IT Alcohols, biological studies
```

(polyhydric; betaine-containing food products)
 IT 7732-18-5, Water, biological studies
 (activity; betaine-containing food products)
 IT 56-81-5, Glycerol, biological studies 57-55-6, Propylene glycol,
 biological studies
 (betaine-containing food products)
 IT 107-43-7, Betaine
 (food products containing)

This patent family has been indexed with the CAS RN and betaine plus general food terms.

I continued my search in HCAPLUS

=> s Betaine or betain or betaines or Trimethylglycine or TMG or Oxyneurine or
 trimethylammonioacetate or trimethylammonio()acetate or Glycylbetaine or
 Trimethylbetaine or Trimethylglycocoll
 43790 BETAINE
 678 BETAIN
 11781 BETAINES
 1034 TRIMETHYLGLYCINE
 1648 TMG
 13 OXYNEURINE
 22 TRIMETHYLAMMONIOACETATE
 1658 TRIMETHYLAMMONIO
 1055837 ACETATE
 6 TRIMETHYLAMMONIO (W) ACETATE
 7 GLYCYLBETAINE
 69 TRIMETHYLBETAINE
 4 TRIMETHYLGLYCOCOLL
 L4 51749 BETAINE OR BETAIN OR BETAINES OR TRIMETHYLGLYCINE OR TMG OR OXYN
 EURINE OR TRIMETHYLAMMONIOACETATE OR TRIMETHYLAMMONIO (W) ACETATE
 OR GLYCYLBETAINE OR TRIMETHYLBETAINE OR TRIMETHYLGLYCOCOLL

Set 4 is the list of "betaine" terms I previously used in PatBase.

In this case to search for trimethylammonio acetate I had to use the (implied/default) W proximity operator by connecting the 2 terms with (). This means I want these 2 terms next to each other in the order specified

=> s l1
 L5 19274 L1
 Searching in HCAPLUS on the previously selected CAS Reg Number
 => s 14-15
 L6 53384 (L4 OR L5)

Combining the results for the CAS RN and the betaine terms

=> s Marshmallow# or cookie# or cakes or pies or bread# or cupcake# or muffin# or
 biscuit# or candies or candy
 843 MARSHMALLOW#
 9038 COOKIE#
 21114 CAKES
 1593 PIES
 55976 BREAD#
 190 CUPCAKE#
 7142 MUFFIN#
 12878 BISCUIT#
 2039 CANDIES
 19208 CANDY
 L7 115464 MARSHMALLOW# OR COOKIE# OR CAKES OR PIES OR BREAD# OR CUPCAKE#
 OR MUFFIN# OR BISCUIT# OR CANDIES OR CANDY

Searching for specific food product terms

As I am not specify a field operator these terms are searched in the BASIC Index

= truncation term allowing for no or just 1 extra character on the end of the search string (eg bread, beads, bready)

```
=> s food#
L8      1252232 FOOD#
```

Separately searching for FOODs as this is likely to generate many hits with a lower likelihood of the results being relevant to my request.

```
=> s snack#
L9      13281 SNACK#
```

Also searched separately for SNACKs as not sure whether useful/too many irrelevant hits.

The number of hits is probably not too high

However one option here to get a more focused search could have been to search for PREPARED(A)SNACK#

```
=> s nutritional?(3a)product#
      208059 NUTRITIONAL?
      4718097 PRODUCT#
L10   6534 NUTRITIONAL? (3A) PRODUCT#
```

Separately searching for nutritional products etc

? = truncation term allowing for no or any number of characters after the search string (eg nutritionally)

(3a) = proximity operator allowing for up to 3 terms between the selected terms NUTRITIONAL? and

PRODUCT#

```
=> d hist
```

Shows me complete history of my search session

```
(FILE 'HOME' ENTERED AT 18:58:17 ON 23 SEP 2020)

FILE 'REGISTRY' ENTERED AT 18:58:24 ON 23 SEP 2020
L1      1 S 107-43-7
      SEL NAME

FILE 'HCAPLUS' ENTERED AT 18:58:55 ON 23 SEP 2020
L2      45082 S E1-E32
      E EP1408776/PN
L3      1 S E3
      SET ROLES OFF
L4      51749 S BETAINE OR BETAIN OR BETAINES OR TRIMETHYLGLYCINE OR TMG OR O
L5      19274 S L1
L6      53384 S L4-L5
L7      115464 S MARSHMALLOW# OR COOKIE# OR CAKES OR PIES OR BREAD# OR CUPCAKE
L8      1252232 S FOOD#
L9      13281 S SNACK#
L10     6534 S NUTRITIONAL? (3A) PRODUCT#
```

```
=> s l6(l)l7
L11     84 L6(L)L7
```

The (L) proximity operator says that I want to select results with the 2 concepts in the same sub-field. In HCAPLUS this means in the same IT field, the TI field or the same paragraph of the AB field.

In this case any reference to the “betaine” concept with the specific food products

```
=> s l6(l)l9-l10
L12     17 L6(L) (L9 OR L10)
```

In this case any reference to the “betaine” concept with the SNACK or Nutritional Product terms

```
=> s l11-l12
L13     97 (L11 OR L12)
```

Combine both these sets together – in a real situation I would have also searched with the FOOD term

```
=> s l13 and p/dt
```

```
15861846 P/DT
L14 50 L13 AND P/DT
```

This set limits my results by the Document Type field to Patents (abbreviated to P)

```
=> s l14 and pry>2002 not pry<=2002
11065931 PRY>2002
4036863 PRY<=2002
```

```
L15 44 L14 AND PRY>2002 NOT PRY<=2002
```

Problems with the data in CA means that not all records have data in the Basic Priority field

PRY = priority year – records can have multiple priority entries

So I first search for records having a priority year greater than 2002 but not having a priority year less than or equal to 2002. This selects patent families more recent than 2002

```
=> s l14 not l15
L16 6 L14 NOT L15
```

Now remove these later patent families

```
=> s l16 NOT 20020408-20021231/PRD.B
210101 20020408-20021231/PRD.B
(20020408-20021231/PRD.B)
L17 6 L16 NOT 20020408-20021231/PRD.B
```

PRD.B = basic priority date and has the format YYYYMMDD

So I have removed any patent families with the earliest priority date later than 7th April 2002

```
=> s l13 not p/dt
15861846 P/DT
L18 47 L13 NOT P/DT
```

This set limits my results by the Document Type field to non-Patents

```
=> s l18 not py>2002
30751170 PY>2002
L19 10 L18 NOT PY>2002
```

PY = publication year

So this removes non-patents published after 2002

```
=> s l16 not l3
L20 5 L16 NOT L3
```

Patent set excluding the patent to be opposed

```
=> d l20 ti 1-5
```

Display the Titles of the remaining 5 patent families

```
L20 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Novel food products containing betaine
```

```
L20 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Mouthwashes containing surfactants for removal of food residues
```

```
L20 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Manufacture of vinyl chloride polymers with good powder flowability
```

```
L20 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Bread dough conditioners
```

```
L20 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Acidulated food products
```

```
=> s l20 not ca2353187/pn
1 CA2353187/PN
L21 4 L20 NOT CA2353187/PN
```

Remembered that the opposed patent apparently has a non-priority equivalent so removed this as well

=> d l21 sbib abs hitind 3-4

Selecting the last 2 remaining records – look more relevant

Display bibliographic details (SBIB), abstract and those parts of the indexing fields that contain selected terms (HITIND)

L21 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2012 ACS on STN

AN 1983:142196 HCAPLUS <<LOGINID::20121204>>

DN 98:142196

OREF 98:21643a,21646a

TI Bread dough conditioners

PA Nippon Beet Sugar Mfg. Co., Ltd., Japan

SO Japan Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 58009642	A	19830120	JP 1981-106285	19810709
	JP 59030057	B	19840725		
PRAI	JP 1981-106285		19810709		

AB A composition containing ascorbic acid [50-81-7] and glycinebetaine [107-43-7]

is a bread dough conditioner. The conditioner is at least as good as KB203.

IPCI A21D0002-24

IPCR A23L0001-176 [I,A]; A21D0002-00 [I,A]; A21D0002-24 [I,A]

CC 17-11 (Food and Feed Chemistry)

ST bread dough conditioner ascorbate betaine

IT 107-43-7

(of bread dough conditioner, with ascorbic acid)

IT 50-81-7, biological studies

(of bread dough conditioner, with betaine)

L21 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2012 ACS on STN

AN 1971:487345 HCAPLUS <<LOGINID::20121204>>

DN 75:87345

OREF 75:13825a,13828a

TI Acidulated food products

IN Smith, Walton John

SO Brit., 2 pp.

CODEN: BRXXAA

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	GB 1239309		19710714	GB	19680723
PRAI	US		19670724		

AB The title compns. are nonbuffered confections with a low degree of cariogenicity containing betaine-HCl, hexamic acid, or acid saccharin as an acidulant. Thus, 130 cc water was dissolved with 110 g starch hydrolyzate which had <1% glucose, 115 g lactose and 75 g sorbitol; the mixture was boiled to 300- and 1.5 g hexamic acid added. The mixture was flavored with 1 ml orange oil and cut into pieces of candy of low cariogenicity.

IPCI A23L

IPCR A23G0003-00 [I,A]; A23G0003-38 [I,A]; A23G0003-42 [I,A]; A23L0001-22 [I,A]

CC 17 (Foods)

```

=> s a23l/ipc,ecla,cpc and l6
      433676 A23L/IPC
      40337 A23L/ECLA
      201979 A23L/CPC
L22      678 A23L/IPC,ECLA,CPC AND L6

```

Combine "betaine" terms with the IPC, CPC and ECLA general Food code A23L

```

=> e 426/ncl
E#    FREQUENCY    AT    TERM
--    -
E1         0        2    425FOR**0/NCL
E2         0        2    425FOR000/NCL
E3      56076      72 --> 426/NCL
E4        225        2    426001000/NCL
E5       2441        2    426002000/NCL
E6        941        5    426003000/NCL
E7        104        2    426004000/NCL
E8        535        2    426005000/NCL
E9        171        2    426006000/NCL
E10       535       17    426007000/NCL
E11        98        2    426008000/NCL
E12        89        2    426009000/NCL

```

When searching for different coding systems I often use the Expand command to check I have got the format correct – and the search on the correct E number

```

=> s e3 and l6
      56076 426/NCL
L23      161 426/NCL AND L6

```

So here using a general US national Class Code

```

=> e 4b014/fterm
E#    FREQUENCY    AT    TERM
--    -
E1         21        2    4B011/MC03/FTERM
E2         30        2    4B011/MC04/FTERM
E3      5703      12 --> 4B014/FTERM
E4         1       18    4B014/GB00/FTERM
E5       843        3    4B014/GB01/FTERM
E6        94        3    4B014/GB02/FTERM
E7        38        2    4B014/GB03/FTERM
E8       472        2    4B014/GB04/FTERM
E9       189        2    4B014/GB05/FTERM
E10      476        2    4B014/GB06/FTERM
E11      438        2    4B014/GB07/FTERM
E12      166        2    4B014/GB08/FTERM

```

```

=> s e3 and l6
      5703 4B014/FTERM
L24      15 4B014/FTERM AND L6

```

So here using a general JP F-Term

```

=> s l22-l24
L25      721 (L22 OR L23 OR L24)

=> S L25 and PRY>2002 NOT PRY<=2002
      11065931 PRY>2002
      4036863 PRY<=2002
L26      543 L25 AND PRY>2002 NOT PRY<=2002

```

=> s 125 not 126
L27 178 L25 NOT L26

=> s 127 NOT 20020408-20021231/PRD.B
210101 20020408-20021231/PRD.B
(20020408-20021231/PRD.B)
L28 153 L27 NOT 20020408-20021231/PRD.B

Sets L25 to L28 just repeat the earlier process for selecting older patent families

=> s 128 and 17-110
L29 80 L28 AND (L7 OR L8 OR L9 OR L10)

I have chosen to take a sub-selection of the records retrieved by searching for the "betaine" terms with Patent Codes by limiting to "food" terms any where in the record. In practice might not do this – or use this to look at my results as 2 separate sets

=> s 129 not (13 or CA2353187/PN)
1 CA2353187/PN
L30 78 L29 NOT (L3 OR CA2353187/PN)

Removing the patent to be opposed from my set

=> d hist full
(FILE 'HOME' ENTERED AT 18:58:17 ON 23 SEP 2020)
D SET
D CLUSTER

FILE 'REGISTRY' ENTERED AT 18:58:24 ON 23 SEP 2020
L1 1 SEA 107-43-7
D CN STR
SEL NAME

FILE 'HCAPLUS' ENTERED AT 18:58:55 ON 23 SEP 2020
L2 45082 SEA (.ALPHA.-EARLEINE/BI OR "(CARBOXYMETHYL)TRIMETHYLAMMONIUM HYDROXIDE INNER SALT"/BI OR "(TRIMETHYLAMMONIO)ACETATE"/BI OR ABROMINE/BI OR AMINOCOAT/BI OR "AQUADEW AN 100"/BI OR "AUQADEW AN 100"/BI OR "BETAFIN BCR"/BI OR "BETAFIN BP 20"/BI OR "BETAFIN BP"/BI OR BETAFIN/BI OR BETAINE/BI OR BLUESTIM/BI OR CYSTADANE/BI OR FENCAIJIAN/BI OR FINNSTIM/BI OR "GENECARE OSMS BA"/BI OR "GLYCINE BETAINE"/BI OR "GLYCINE, TRIMETHYLBETAINE"/BI OR "GLYCOCOLL BETAINE"/BI OR GLYCYLBETAINE/BI OR GREENSTIM/BI OR INTRACELL/BI OR "LORAMINE AMB 13"/BI OR LYCINE/BI OR "N,N,N-TRIMETHYLGLYCINE"/BI OR OXYNEURINE/BI OR "RUBRINE C"/BI OR TRIMETHYLBETAINE/BI OR TRIMETHYLGLYCINE/BI OR TRIMETHYLGLYCOLL/BI OR "2-(TRIMETHYLAZANIUMYL)ACETATE"/BI)
E EP1408776/PN
L3 1 SEA EP1408776/PN
SET ROLES OFF
D SET
D L3 SBIB ABS IT
L4 51749 SEA BETAINE OR BETAIN OR BETAINES OR TRIMETHYLGLYCINE OR TMG OR OXYNEURINE OR TRIMETHYLAMMONIOACETATE OR TRIMETHYLAMMONIO(W)ACETATE OR GLYCYLBETAINE OR TRIMETHYLBETAINE OR TRIMETHYLGLYCOLL
L5 19274 SEA L1
L6 53384 SEA (L4 OR L5)
L7 115464 SEA MARSHMALLOW# OR COOKIE# OR CAKES OR PIES OR BREAD# OR CUPCAKE# OR MUFFIN# OR BISCUIT# OR CANDIES OR CANDY
L8 1252232 SEA FOOD#
L9 13281 SEA SNACK#
L10 6534 SEA NUTRITIONAL?(3A)PRODUCT#
L11 84 SEA L6(L)L7
L12 17 SEA L6(L)(L9 OR L10)

```

L13      97 SEA (L11 OR L12)
L14      50 SEA L13 AND P/DT
L15      44 SEA L14 AND PRY>2002 NOT PRY<=2002
L16      6 SEA L14 NOT L15
L17      6 SEA L16 NOT 20020408-20021231/PRD.B
L18      47 SEA L13 NOT P/DT
L19      10 SEA L18 NOT PY>2002
L20      5 SEA L16 NOT L3
L21      4 SEA L20 NOT CA2353187/PN
          D L21 SBIB ABS HITIND 3-4
L22      678 SEA A23L/IPC,ECLA,CPC AND L6
          E 426/NCL
L23      161 SEA 426/NCL AND L6
          E 4B014/FTERM
L24      15 SEA 4B014/FTERM AND L6
L25      721 SEA (L22 OR L23 OR L24)
L26      543 SEA L25 AND PRY>2002 NOT PRY<=2002
L27      178 SEA L25 NOT L26
L28      153 SEA L27 NOT 20020408-20021231/PRD.B
L29      80 SEA L28 AND (L7 OR L8 OR L9 OR L10)
L30      78 SEA L29 NOT (L3 OR CA2353187/PN)

```

D HIST FULL gives the complete history for a session

=> log hold

This command now gives me 2 hours to consider my strategy/results. If I log back in before 2 hours my session will still be active. To retain results longer I would need to use the SAVE TEMP command