



Mock Certification Exam for
Patent Information Professionals 2011

PATENT INFORMATION ANALYSIS MOCK CERTIFICATION EXAMINATION

Paper A

Chemistry sample answer for validity/opposition

Please note: it is to be understood that the sample answers provided in this document are intended to serve as a guide and by no means represent definitive answers. It is entirely possible that additional answers not specifically disclosed in this document could be considered as satisfactory answers.



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Question 2

Consider that EP 1278810 has just been granted. This document was being watched by your company and an attorney has asked for your help to identify suitable prior art to prepare an opposition statement against the broadest claim of this patent.

Sample answer

The following text suggests one way of answering Question 2 from the October 2011 Mock Exam (Chemistry Paper):

This is not the perfect answer. Rather this is one way that a searcher with no real experience of this technical area might carry out this search. Any known prior art (e.g. from the opposition part of the EPO file wrapper) has not been considered in this case. However, use of personal experience in searching and knowledge of chemistry nomenclature as well as search expertise have been capitalized on. This answer combines the 3 elements that a good candidate should have demonstrated – planning and understanding the search, search techniques and detailed explanations of all the thinking behind every part of the search.

General Preparation

My first step for any opposition or validity request is to look at the specification of the document of concern.

In this case we have a granted European patent with a priority date of 2nd May 2000, a filing date of 2nd May 2001 and a grant date of 10th March 2004.

This means that any opposition would have to be raised at the EPO by 10th December 2004. Ideally I should have scheduled the required searching by mid-October to give my attorney time to prepare the grounds before the nine month deadline for filing oppositions has expired.

In the absence of further direction from my attorney I would check for any independent claims – in this case there are 2 such claims:

Claim 1 is for a composition

Claim 5 is a use claim.

Claim 1 has 5 separate features:

- Adhesive composition
- Odour substance
- Carrier
- Dry form
- Odour only released on contact with water

Although it is likely that not all these features will be searched – especially the water-release process.

Claim 5 has essentially the same features only “contact with water” is replaced by “ready-to-use aqueous composition”.

This means that the same search strategy can probably be used for both independent claims.



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I would now discuss with the attorney whether prior art is required against all or part(s) of the claims. I would also want to know how important it is to invalidate the claim(s):

Do we infringe?

Do we plan to use this technology?

Might we want to work in this area?

Do we just think that this patent is not valid and should not be allowed to survive unchallenged?

(The importance of the opposition would affect the time spent on this request if it proves difficult to find useful prior art).

It is also possible that the attorney already has some close prior art and is just looking for further documents to support an inventive step argument.

There are various grounds for an opposition but the two of relevance for any search are Novelty and Inventive Step. However, if on reading the claims (and full disclosure) it is not clear to me what exactly the claims are covering I would always discuss with the attorney. Similarly if I do not believe that a claim is entitled to any priority date or the filing date I would also discuss this with the attorney {see later}. If there are fundamental problems with the (relevant) claim(s) as granted it is even possible that the initially agreed search is not required.

Novelty

For a European patent a novelty destroying document must either be:

- A publication available before the entitled priority date anywhere in the world; or
- A publication that is filed as a European patent application* and have an earlier (entitled) priority date but published after the (entitled) priority date.

(*when considering applications filed before 13 December 2007, this novelty destroying effect only takes place in those European Contracting States which have been validly designated in the earlier filed application)

Inventive Step

For a European patent inventive step destroying documents must have been publically available anywhere in the world before the entitled priority date. Inventive step arguments are the result of the combination of 2 or more known disclosures provided that it would be obvious to the skilled person to make this combination. These features may be found in a single or several relevant documents/items.

Priority Date(s)

I have referred to the entitled priority date several times in this discussion. During the priority year of an invention the patentee may make changes to the specification which may result in further priority documents and/or a modified application document (at the filing date). If this happens a claim is only entitled a priority date when it first is fully disclosed – which can be up to 12 months after the 1st priority date.

Before I start an opposition/validity search I will always check the EPO file wrapper to see if I can determine the correct priority date for a claim. If I feel unable to confirm the correct date I will always assume that the patent is only entitled to its filing date since this gives (up to) 12 months more of searchable material. (It is better to include this later material in a search and then decide it is too late than to stop searching at the 1st priority date and to discover that the entitled priority date is actually 12 months later).

File Wrapper

In addition to checking the “priority date” I will also look through the file wrapper to:

- Identify documents discussed in the prosecution



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- as possible starting points for searches/search terms
- as part of any citation search
- these provide further arguments not considered by the examiner
- Identify other potential searches if
 - the actual invention is discussed in greater/any detail
 - the inventive step over a specific document is discussed (or demonstrated by experiment)

In this case as I do not have time for a full analysis of the file wrapper I will assume that the only priority date EP 1278810 is its filing date of 02/05/2001. I will also look for any prior art that covers the full breadth of the claims covering both the broad terms and the specific materials.

Initial Preparation

This is an area I am not familiar with so I must start by reading the granted patent to confirm my selection of concepts describing the invention and to identify terms used to describe these concepts.

I have arranged this as a 4 column table – ignoring the addition of water for now:

Adhesive	Odour substance	Carrier	Dry form
Starch (derivatives) Potato starch Cellulose (derivatives) Carboxymethylcellulose methylcellulose Polyvinyl acetate PVA Solvitose Perfactamyl Vinnapas Walocel Gabrosa Tylose Wallpaper paste Glue (paper) size	Odorous Citral (pine, vanilla, lemon, citrus)	Cyclodextrin (derivatives) CAVAMAX CAVASOL	Powder granules

This list includes a number of trade names which might include materials not relevant to this search – before using these in a search it would be necessary to check the suppliers websites for further information (e.g. to identify specific relevant materials).

In the absence of these checks I have decided not to include these trade names in an initial search.

Relevant cited publications

JP 01/225644 (in disclosure) + GB 2093856 and GB 2292082 (in Examination)

I am concerned about the inclusion of the “dry form” concept in any search as this concept might not be specifically described in an abstract and/or claims (it being obvious when reading the full copy that this is a dry composition). Also terms such as dry/powder/granule might give false hits where a dry material is pre-mixed in a solution/gel/paste etc. I may choose to add this concept at a later date



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This means that I expect to initially concentrate my searches on the remaining three concepts.

I next look up the Patbase entry for EP 1278810. This family includes an equivalent US application which was abandoned during examination so another source of prior art might be the US file wrapper. (If this search was performed after May 2004 the reasons for the US final rejection would hopefully have been available. It is possible (or not) that arguments for rejection in the USA might be useful for the EP case).

I would also use the Patbase family as an entry to checking all the coding used to classify this invention (IPC, ECLA and US national codes are available in this case).

IPC code C09J11/06 = Non-macromolecular organic additives in additives;

C09J101/06 = adhesives based on cellulose ethers

C09J103/02 = adhesives based on starch [see also 103/04 to 103/10 for starch derivatives]

C09J131/04 = adhesives based on vinyl acetate homo- or co-polymers

C09J101 - covers adhesive based on cellulose (derivatives) in general

C09J - covers the non-mechanical aspects of the adhesive process in general

C09J103 - covers adhesive based on starch/amylase/amylopectin (derivatives) in general

In ECLA the same coding as above would be useful – care being made to allow for further divisions of certain codes.

The US codes refer to chemicals independent of use – not sure whether would use these.

None of the 3 patents referenced with EP 1278810 had any additional apparently useful classifications. I also tried a quick and dirty search for perfumed adhesives which also gave no extra codes.

Search 1: pn=ep1278810 (Results 1)

Search 2: pn=(JP1225644 or GB2093856 or GB2292082) (Results 4)

Search 3: (TAC=(adhesiv* and perfume*)) (Results 1308)

Search 4: stac=(adhesiv* and perfume*) (Results 1218)

Search 5: ti=(adhesiv* and perfume*) (Results 22)

Fields:

TAC = terms present in the title and all abstracts and claims in a single family

STAC = terms present in the title or the abstract or the claims of any individual member of a patent family

TI = title and PN= patent number

* is a truncation command in Patbase = any term beginning with this stem

I have still found no Japanese FTerms for adhesives – crude search below

Search 6: ti=(adhesiv*) and prc=jp (Results 36520)

However found:

4J040 = adhesives and adhesive methods

4J040/BA01 to 4J040//BA12 cover cellulose and starch adhesives

4J040/DD02 covers polyvinyl alcohol

4J040/JA06 to 4J040/JA08 covers solid adhesives



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This last set of codes combines two of the proposed origin concepts in the search. Before doing any broader searches I checked whether there were any useful references indexed under these codes (apparently not[⊗])

Search 7: ((PRD<20010502) and (JCT=(4J040/JA06 or 4J040/JA07 or 4J040/JA08)))
(Results 1094)

Search 8: (((TAC=(cyclodextrin* or (cyclo dextrin*))) and (PRD<20010502)) and
(JCT=(4J040/JA06 or 4J040/JA07 or 4J040/JA08))) (Results 2)

Search 9: (((TAC=(perfume* or fragrance* or odour* or odor*)) and (PRD<20010502)) and
(JCT=(4J040/JA06 or 4J040/JA07 or 4J040/JA08))) (Results 12)

In these searches I have limited to references with a priority date before the filing date of EP 1278810 (PRD<20010502) with Japanese Fterms. For cyclodextrin I have allowed for this term being split (e.g. cyclo-dextrin). I have also allowed for some obvious synonyms for odorous materials including UK and American English spellings.

It would appear that these Fterms are more commonly used for stick/solid application adhesives rather than the powders of interest to this request.

I also believed that cyclodextrins are well-known as complexing agents for perfumes or odours although this is not discussed in the patent – I might confirm this with my attorney or have a quick check on the Internet. For any material I am not familiar with I find Wikipedia a useful starting point:

<http://en.wikipedia.org/wiki/Cyclodextrin>

The following reference from Google books confirmed that the stabilization of perfume by CD is well known:

<http://books.google.co.uk/books?id=Lh63qhMUkhQC&pg=PA323&lpg=PA323&dq=cyclodextrin+and+perfume&source=bl&ots=L-AXlwpJiD&sig=qm-WuUuhMKEi8PrZslz345Bj9Hg&hl=en&sa=X&ei=GD6tT-78K8is0QWTy9CGCQ&ved=0CFgQ6AEwAA#v=onepage&q=cyclodextrin%20and%20perfume&f=false>
“Cyclodextrin Technology” by [József Szejtli](#) – 1988

[and there are numerous other examples]

This information about cyclodextrins further reduces the different ways that I might search for relevant prior art:

Possible suggestions:

Combination of all 3 concepts – adhesive + cyclodextrin (CD) + odour

Adhesives containing a perfume (for other carriers instead of CD)

CD plus odour plus specific “adhesive materials”

CD in adhesives

The materials listed in the adhesives concept above have many functions other than as adhesives. These materials are widely found in a large number of consumer goods (including some foods). Since some these consumer goods may also include CD and/or perfumes it is likely that additional term(s) may need to be included in any search to ensure that most (or at least a significant %) of the retrieved items cover adhesive products.

Next I looked at the Chemical Abstracts record for EP 1278810 – in a real situation I would also display the record from the Derwent WPI file (including any file specific coding – manual coding, Derwent Classes and possibly chemical and polymer coding).



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AN 135:358867 CA <<LOGINID::20120511>>
TI Perfumed adhesive compositions for particular use as wallpaper paste
IN Van Dijk, Barend Gerrit
PA Eurovite Nederland B.V., Neth.
SO PCT Int. Appl., 14 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001083635	A1	20011108	WO 2001-NL330	20010502
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, 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, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, 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, GW, ML, MR, NE, SN, TD, TG				
NL 1015087	C2	20011113	NL 2000-1015087	20000502
CA 2407819	A1	20011108	CA 2001-2407819	20010502
AU 2001055099	A	20011112	AU 2001-55099	20010502
EP 1278810	A1	20030129	EP 2001-928241	20010502 <--
EP 1278810	B1	20040310		
EP 1278810	B2	20070704		
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 261479	T	20040315	AT 2001-928241	20010502
RU 2268281	C2	20060120	RU 2002-132262	20010502
US 20030171572	A1	20030911	US 2003-275206	20030211
HK 1053488	A1	20040716	HK 2003-105462	20030729
PRAI NL 2000-1015087	A	20000502		
WO 2001-NL330	W	20010502		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The compns., in a dry form such as a powder or granule, comprise: an adhesive, e.g., starch, cellulose and PVA, an odor-substance-releasing constituent which contains at least one odor substance and at least one carrier such as cyclodextrin or its derivs. The adhesive composition is in a form suitable for mixing with water by an end user with the formation of a ready-to-use aqueous composition

IT Pastes

(adhesive pastes; perfumed adhesive compns. for particular use as wallpaper paste)

IT Adhesives

(pastes; perfumed adhesive compns. for particular use as wallpaper paste)

IT Odor and Odorous substances



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- (perfumed adhesive compns. for particular use as wallpaper paste)
- IT Paper
(wallpaper; perfumed adhesive compns. for particular use as wallpaper paste)
- IT 4080-31-3, Dowicil 75
RL: TEM (Technical or engineered material use); USES (Uses)
(Dowicil 75, preservative; perfumed adhesive compns. for particular use as wallpaper paste)
- IT 7585-39-9D, γ -Cyclodextrin, complex
RL: TEM (Technical or engineered material use); USES (Uses)
(odorant carrier; perfumed adhesive compns. for particular use as wallpaper paste)
- IT 5392-40-5, Citral
RL: MOA (Modifier or additive use); USES (Uses)
(odorant; perfumed adhesive compns. for particular use as wallpaper paste)
- IT 9003-20-7, Poly(vinyl acetate) 9004-67-5, Methylcellulose 9004-67-5D, Methylcellulose, carboxy derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(perfumed adhesive compns. for particular use as wallpaper paste)
- IT 9005-25-8, Starch, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(potato starch; perfumed adhesive compns. for particular use as wallpaper paste)

This abstract has given me CAS Registry Numbers for some of the chemicals in my list but not alpha or gamma cyclodextrin or CD derivatives
other celluloses (e.g. carboxymethylcellulose) or any derivatives.

Searching for Registry Numbers in the STN Registry file can be expensive – especially where one is looking for derivatives of a material. How can I minimize this cost without eliminating potential “hits” from my concepts?

I could either pick specific materials and ignore their derivatives on the basis that the “base” materials will also be indexed/abstracted/claimed; or
for CD even assume that the beta form is sufficient; or
look for every RN including the significant character string (hopefully) describing the group of materials CELLULOSE, STARCH or CYCLODEXTRIN.

In this instance I question the value of doing a substructure search to retrieve compounds that form “part of these chemical groups”.

The first time I search a new (more common) compound I will also check the full CA Registry entry to see if this identifies further useful synonyms.

For example:

=> s 7585-39-9

L1 1 7585-39-9



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=> d cn

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2012 ACS on STN

CN b-Cyclodextrin (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,4,7,9,12,14,17,19,22,24,27,29,32,34-

Tetradecaaoxaoctacyclo[31.2.2.23,6.28,11.213,16.218,21.223,26.228,31]nonate
tracontane, b-cyclodextrin deriv.

CN Cycloheptaamylose (7Cl)

OTHER NAMES:

CN b-Cycloamylose

CN b-Cycloheptaamylose

CN b-Dextrin

CN Betadex

CN BW 7

CN BW 7 (polysaccharide)

CN Cavamax W 7

CN CAVAMAX W7 Pharma

CN Celdex B 100

CN Celdex B 100H

CN Celdex B 100z

CN Celdex N

CN Cibatex OC-CLD

CN Cyclodextrin Beta W 7M1.8

CN Cycloheptaglucan

CN Cycloheptaglucon

CN Cyclomaltoheptaose

CN Dextrin, b-cyclo

CN Dexy Pearl 100

CN Kleptose

CN Kleptose B

CN NSC 269471

CN NSC 314334

CN Rhodocap N

CN Rindex B

CN Ringdex B

CN Ringdex BL

CN Schardinger b-dextrin

CN Stereoisomer of 5,10,15,20,25,30,35-heptakis(hydroxymethyl)-

2,4,7,9,12,14,17,19,22,24,27,29,32,34-

tetradecaaoxaoctacyclo[31.2.2.23,6.28,11.213,16.218,21.223,26.228,31]nonate

tracontane-36,37,38,39,40,41,42,43,44,45,46,47,48,49-tetradecol

It is possible to select all the chemical names for searching later

SEL NAME

=> sel name

E1 THROUGH E31 ASSIGNED

=> file Ca

....



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=> s e30-e31

310 "SCHARDINGER"/BI
1810511 "BETA"/BI
24691 "DEXTRIN"/BI
10 "SCHARDINGER .BETA.-DEXTRIN"/BI
(("SCHARDINGER"(W)"BETA"(W)"DEXTRIN")/BI)
10286 "STEREOISOMER"/BI
0 "OF"/BI
7620743 "5"/BI
4617404 "10"/BI
2038599 "15"/BI
2774205 "20"/BI
1752242 "25"/BI
2263011 "30"/BI
805596 "35"/BI
1787 "HEPTAKIS"/BI
75920 "HYDROXYMETHYL"/BI
10876077 "2"/BI
6682527 "4"/BI
3294713 "7"/BI
2286475 "9"/BI
1708324 "12"/BI
1014250 "14"/BI
805096 "17"/BI
559546 "19"/BI
639628 "22"/BI
1011452 "24"/BI
447505 "27"/BI
359492 "29"/BI
464522 "32"/BI
352015 "34"/BI
22 "TETRADECAOXAOCTACYCLO"/BI
373427 "31"/BI
10876077 "2"/BI
10876077 "2"/BI
529054 "23"/BI
4664741 "6"/BI
546053 "28"/BI
1093409 "11"/BI
26388 "213"/BI
959283 "16"/BI
27841 "218"/BI
603986 "21"/BI
23401 "223"/BI
460409 "26"/BI
27528 "228"/BI
373427 "31"/BI
27 "NONATETRACONTANE"/BI
394477 "36"/BI



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436470 "37"/BI
348290 "38"/BI
265798 "39"/BI
1597946 "40"/BI
282679 "41"/BI

0 "STEREISOIMER OF 5,10,15,20,25,30,35-HEPTAKIS(HYDROXYMETHYL)-2,4,7,9,
12,14,17,19,22,24,27,29,32,34-TETRADECAOXAOCTACYCLO(31.2.2.23,6.28,11.
213,16.218,21.223,26.228,31)NONATETRACONTANE-36,37,38,39,40,41"/BI
(("STEREISOIMER"(W)"OF"(W)"5"(W)"10"(W)"15"(W)"20"(W)"25"(W)"3
0"(W)"35"(W)"HEPTAKIS"(W)"HYDROXYMETHYL"(W)"2"(W)"4"(W)"7"(W)"
9"(W)"12"(W)"14"(W)"17"(W)"19"(W)"22"(W)"24"(W)"27"(W)"29"(W)"
32"(W)"34"(W)"TETRADECAOXAOCTACYCLO"(W)"31"(W)"2"(W)"2"(W)"23"
(W)"6"(W)"28"(W)"11"(W)"213"(W)"16"(W)"218"(W)"21"(W)"223"(W)"
26"(W)"228"(W)"31"(W)"NONATETRACONTANE"(W)"36"(W)"37"(W)"38"(W)
)"39"(W)"40"(W)"41"/BI)

L2 10 ("SCHARDINGER .BETA.-DEXTRIN"/BI OR "STEREISOIMER OF 5,10,15,20,
25,30,35-HEPTAKIS(HYDROXYMETHYL)-2,4,7,9,12,14,17,19,22,24,27,29
,32,34-TETRADECAOXAOCTACYCLO(31.2.2.23,6.28,11.213,16.218,21.223
,26.228,31)NONATETRACONTANE-36,37,38,39,40,41"/BI OR 1187028-35-
8/BI OR 1269982-56-0/BI OR 37331-89-8/BI OR 449728-55-6/BI)

but I prefer to download the Registry entry and select more useful terms from the list.

First Full Search

I have annotated in red my comments into the transcript from search with STN Express

=> file reg

=> e Cyclodextrin/cn

E1 1 CYCLODEX G-TA/CN

E2 1 CYCLODEXTRAN GLUCANOTRANSFERASE/CN

E3 1 --> CYCLODEXTRIN/CN

E4 2 CYCLODEXTRIN ABC TRANSPORTER, PERMEASE PROTEIN (STREPTOCOCCU

....

Expand in the Chemical Name field for compounds beginning with the term cyclodextrin – there are lots but there is a useful code for the “generic name” rather than the beta-form that I already have

=> s e3

L3 1 CYCLODEXTRIN/CN

=> file hcaplus

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=> set plurals on

SET COMMAND COMPLETED

This command automatically searches for any plural versions of input terms during the current search session.

=> s cyclodextrin or cyclo()Dextrin

51088 CYCLODEXTRIN



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12958 CYCLODEXTRINS
52372 CYCLODEXTRIN
(CYCLODEXTRIN OR CYCLODEXTRINS)

32894 CYCLO
8 CYCLOS
32901 CYCLO
(CYCLO OR CYCLOS)

25674 DEXTRIN
3736 DEXTRINS
27496 DEXTRIN
(DEXTRIN OR DEXTRINS)

36 CYCLO(W)DEXTRIN

L4 52373 CYCLODEXTRIN OR CYCLO(W)DEXTRIN

This searches for CD as both one word or as 2 terms adjacent in the specified order.

As I have not specified a field for this search I am looking in the Basic Index for this database. The Basic index in the Chemical Abstracts database includes the TI, AB, ST and IT fields.

=> s Cycloheptaamylose or Cycloamylose or beta()dextrin or Betadex or BW()7

211 CYCLOHEPTAAMYLOSE
5 CYCLOHEPTAAMYLOSES
211 CYCLOHEPTAAMYLOSE
(CYCLOHEPTAAMYLOSE OR CYCLOHEPTAAMYLOSES)
204 CYCLOAMYLOSE
88 CYCLOAMYLOSES
240 CYCLOAMYLOSE
(CYCLOAMYLOSE OR CYCLOAMYLOSES)

1870353 BETA
277 BETAS
1870436 BETA
(BETA OR BETAS)

25674 DEXTRIN
3736 DEXTRINS
27496 DEXTRIN
(DEXTRIN OR DEXTRINS)

252 BETA(W)DEXTRIN
30 BETADIX

16018 BW
394 BWS
16371 BW
(BW OR BWS)

3510383 7
33 BW(W)7

L5 710 CYCLOHEPTAAMYLOSE OR CYCLOAMYLOSE OR BETA(W)DEXTRIN OR BETADIX OR BW(W)7

=> s Cycloheptaglucan or Cycloheptaglusan or Cyclomaltoheptaose or Kleptose

15 CYCLOHEPTAGLUCAN
2 CYCLOHEPTAGLUCOSAN
294 CYCLOMALTOHEPTAOSE



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21 CYCLOMALTOHEPTAOSES
300 CYCLOMALTOHEPTAOSE
(CYCLOMALTOHEPTAOSE OR CYCLOMALTOHEPTAOSES)
60 KLEPTOSE

L6 377 CYCLOHEPTAGLUCAN OR CYCLOHEPTAGLUCOSAN OR CYCLOMALTOHEPTAOSE
OR KLEPTOSE

Sets 5 and 6 search for identified synonyms for CD taken from the Registry file entry for the β -cyclodextrin

=> s ?cyclodextrin or ?cyclo()Dextrin

51161 ?CYCLODEXTRIN

126768 ?CYCLO

25674 DEXTRIN

3736 DEXTRINS

27496 DEXTRIN

(DEXTRIN OR DEXTRINS)

36 ?CYCLO(W)DEXTRIN

L7 51172 ?CYCLODEXTRIN OR ?CYCLO(W)DEXTRIN

? is a truncation symbol allowing for null to any number of extra characters. In this instance it has been used before a term meaning that I have requested LEFT-HAND truncation (any term ending with the CD suffix).

Notice that the automatic plurals has been "ignored" for this set so I would need extra search terms for ?cyclodextrins.

=> s l1 or l3

24955 L1

9574 L3

L8 32446 L1 OR L3

This command searches for the CAS Registry numbers – I have decided (at first ?) to not include the RNs for any other cyclodextrins.

=> s perfume or fragrance or odour or odor

26740 PERFUME

29064 PERFUMES

44964 PERFUME

(PERFUME OR PERFUMES)

18473 FRAGRANCE

4477 FRAGRANCES

20719 FRAGRANCE

(FRAGRANCE OR FRAGRANCES)

3234 ODOUR

357 ODOURS

3550 ODOUR

(ODOUR OR ODOURS)

97606 ODOR

15150 ODORS

103760 ODOR

(ODOR OR ODORS)

L9 155468 PERFUME OR FRAGRANCE OR ODOUR OR ODOR



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Alternative synonyms for odour including UK and American spelling of odour

=> s odor? or l9

124980 ODOR?

L10 175873 ODOR? OR L9

"Full" odour concept including any truncated terms being with the prefix ODOR.

=> s adhesive or glue

295056 ADHESIVE

181558 ADHESIVES

335513 ADHESIVE

(ADHESIVE OR ADHESIVES)

27150 GLUE

8944 GLUES

32232 GLUE

(GLUE OR GLUES)

L11 359840 ADHESIVE OR GLUE

Broad adhesive terms

=> s wallpaper or wall()paper

3791 WALLPAPER

354 WALLPAPERS

3888 WALLPAPER

(WALLPAPER OR WALLPAPERS)

466453 WALL

187160 WALLS

584194 WALL

(WALL OR WALLS)

1204224 PAPER

66973 PAPERS

1244197 PAPER

(PAPER OR PAPERS)

908 WALL(W)PAPER

L12 4399 WALLPAPER OR WALL(W)PAPER

=> s paste

130950 PASTE

45800 PASTES

L13 148191 PASTE

(PASTE OR PASTES)

=> s l12()l13

L14 67 L12(W)L13

This allows for wallpaper or wall paper next to paste in that order

=> s l12(a)l13

L15 81 L12(A)L13

This allows for wallpaper or wall paper next to paste in any order



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=> s l15 not l14
L16 14 L15 NOT L14

=> d hitind

This display command shows all the applied Patent Classifications plus CA Sections and any IT (Index term) phrases in which a searched for term was retrieved.

L16 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2012 ACS on STN

IPC I C09D0133-02 [I,A]; C09D0005-28 [I,A]

IPCR C09D0133-02 [I,A]; C09D0005-28 [I,A]

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 42

IT Emulsions

(acrylic; manufacture of environmentally friendly liquid texture **paste**
/wallpaper, and its components)

.
. .

IT Abrasion-resistant materials

Antibacterial agents

Antifoaming agents

Antifreeze

Pastes

Preservatives

Water-resistant materials

(manufacture of environmentally friendly liquid texture **paste**/
wallpaper, and its components)

=> e c09j/ipc

E# FREQUENCY AT TERM

E#	FREQUENCY	AT	TERM
E1	1		C09H0031-16/IPC
E2	7		C09I/IPC
E3	91535	88 -->	C09J/IPC
E4	2		C09J0000/IPC
E5	2		C09J0000-00/IPC
E6	1656		C09J0001/IPC
E7	1		C09J0001-/IPC
E8	1340	103	C09J0001-00/IPC
E9	486	2	C09J0001-02/IPC
E10	1		C09J0001-04/IPC
E11	1		C09J0001-106/IPC
E12	2		C09J0002/IPC

This is the expand command. I have looked at the broad IPC code for adhesives to check how happy terms this covers

=> s c09j/ipc,ecla or 4j040/fterm

91538 C09J/IPC

21581 C09J/ECLA

13440 4J040/FTERM



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L17 92785 C09J/IPC,ECLA OR 4J040/FTERM

Based on the fairly low total number of records associated with C09J I have chosen to search for all the adhesive code terms together giving me greater flexibility. Wherever possible I will always try to keep my concepts separate in case they need be re-used.

=> d hist

Display all the search commands and results for the current search session

```
FILE 'REGISTRY' ENTERED AT
L1      1 S 7585-39-9
        SEL NAME
```

```
FILE 'CA' ENTERED AT
L2      10 S E30-E31
```

```
FILE 'REGISTRY' ENTERED AT
        E CYCLODEXTRIN/CN
L3      1 S E3
```

```
FILE 'HCAPLUS' ENTERED AT
        SET PLURALS ON
L4      52381 S CYCLODEXTRIN OR CYCLO()DEXTRIN
L5      710 S CYCLOHEPTAAMYLOSE OR CYCLOAMYLOSE OR BETA()DEXTRIN OR BETADEX
L6      377 S CYCLOHEPTAGLUCAN OR CYCLOHEPTAGLUCOSAN OR CYCLOMALTOHEPTAOSE
L7      51172 S ?CYCLODEXTRIN OR ?CYCLO()DEXTRIN
L8      32446 S L1 OR L3
L9      155468 S PERFUME OR FRAGRANCE OR ODOUR OR ODOR
L10     175873 S ODOR? OR L9
L11     359788 S ADHESIVE OR GLUE
L12     4399 S WALLPAPER OR WALL()PAPER
L13     148191 S PASTE
L14     67 S L12()L13
L15     81 S L12(A)L13
L16     14 S L15 NOT L14
        E C09J/IPC
L17     92785 S C09J/IPC,ECLA OR 4J040/FTERM
```

=> s l11 or l15

```
L18     359882 L11 OR L15
```

Set 18 = all general adhesive terms (not the patent classification results)

=> s l4-l8

```
L19     53080 (L4 OR L5 OR L6 OR L7 OR L8)
```

Set 19 = all the CD concept

=> s l10 and l19

```
L20     1636 L10 AND L19
```

Combine the odour and CD concepts



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The AND operator gives the greatest Recall but also losses the ability for any concepts to be more closely related. If the number of hits generated [see L23 below] were too large to view and/or clearly largely irrelevant it would have been possible to combine these 2 concepts using a field or proximity operator to reduce the size and increase the relevance or Precision of this combined set. I deliberately combined the concepts in this way to give me the flexibility to be able to more closely link the odour and CD concepts rather than increase the association of either of these concepts with the adhesive (product) concept.

=> s l20 and l18
L21 55 L20 AND L18

=> s l20 and l17
L22 12 L20 AND L17

=> s l21-l22
L23 57 (L21 OR L22)

Combined the odour, CD and adhesive concepts

=> s l23 and p/dt
8238830 P/DT
L24 57 L23 AND P/DT

Select those hits that are patents – all the set in this case

=> s l23 not pry.b>2001
3374685 PRY.B>2001
L25 27 L23 NOT PRY.B>2001

This should remove those hits which do not have a basic priority date (1st priority date added by CAS) before the end of 2001. PRY = priority year [PRY.B = basic priority year]

=> s l25 NOT 20010502-20011231/PRD.B
185681 20010502-20011231/PRD.B
(20010502-20011231/PRD.B)
L26 26 L25 NOT 20010502-20011231/PRD.B

This should remove those hits which have a basic priority date between the filing date of EP 1278810 and the end of 2001. PRD = priority date. This field is date range searchable.

=> save temp ep1278a/a l26
ANSWER SET L26 HAS BEEN SAVED AS 'EP1278A/A'

SAVE TEMP holds this set of results on the STN system for 2 weeks – only accessible to this USERID

=> d l26 ti 1-26

Display the titles for assessment – I prefer to scan the title list and eliminate those results that are clearly not relevant thus reducing the numbers needing more detailed scrutiny (this is a negative selection and is done with caution – if in doubt leave in the results of interest).

L26 ANSWER 1 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Skin antiaging treatment with botulinum toxin combined with
peptides-containing compositions

L26 ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Highly absorbing fibrous web



Mock Certification Exam for Patent Information Professionals 2011

L26 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Composition comprising antiviral and antimicrobial agent for treating viral infection at smallpox vaccination site

L26 ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Health food containing garlic and honey as main ingredients and its preparation method

L26 ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Perfumed adhesive compositions for particular use as wallpaper paste
Answer 5 is EP 1278810

L26 ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Adhesively applied external nasal strips and dilators containing medications and fragrances

L26 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Cyclodextrin containing pressure sensitive adhesives for medical devices

L26 ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Transdermal devices comprising essential oils for aromatherapy

L26 ANSWER 9 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Curing promotor for cyanoacrylate

L26 ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Wrinkle reducing composition for fabrics

L26 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Bad taste- or odor-free packaging materials without migration of low molecular weight byproducts of polyethylene

L26 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Cyclodextrin adducts with heterocyclic compounds having at least one nitrogen, their preparation and use

L26 ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI adhesive tapes containing b-cyclodextrin to inhibit transdermal absorption of perfume and/or preservative contents

L26 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Deodorant-containing adhesive compositions for information carrier sheets

L26 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Synthetic rubber-containing odorless adhesive compositions

L26 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Synthetic resin articles with cyclodextrin-included guest materials



Mock Certification Exam for Patent Information Professionals 2011

L26 ANSWER 17 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Adhesive deodorant tape for the control of underarm odor

L26 ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Deodorant adhesive tapes containing cyclodextrins

L26 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Deodorant adhesive tapes containing cyclodextrins for the control of
underarm odor

L26 ANSWER 20 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Adsorbent composition, and method of making same

L26 ANSWER 21 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Deodorant adhesive tapes for the control of underarm odor

L26 ANSWER 22 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Oral odor-controlling patch compositions

L26 ANSWER 23 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Persistent fragrant and insect repellent coatings for buildings

L26 ANSWER 24 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Microcapsule-containing temporary adhesives

L26 ANSWER 25 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Synthetic resin product containing compound included in cyclodextrin

L26 ANSWER 26 OF 26 HCAPLUS COPYRIGHT 2012 ACS on STN
TI Perfuming pressure-sensitive adhesives

=> log hold

This command holds this session open without incurring any further connection charges for up to 2 hours.

End of 1st Full Search Session

This set L26 includes some potentially interesting hits. I could view the abstracts online
e.g. D L26 SBIB ABS HITIND
or alternatively I could transfer a view in a full-text database such as Patbase:

? sel pn.b l26 n-m

This command would select the 1st family member (basic patent) of records n-m in set L26

? s e1-e(1+m-n)

This effectively displays all the selected basic patents which can then be cut and pasted into Patbase for viewing

Next Steps

If I have identified potentially useful documents I would discuss these with my attorney – if this enough material I can stop.



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Assuming I need more references I would:

1) check the records I have viewed in CAS or Patbase for alternative terms to describe any of my concepts. These terms can be added to any of my concepts which I have separated as sets L17 and L18 (adhesives); set L10 (odorous materials) and set L19 (cyclodextrin). This might give me more records to look at.

Other suitable terms that could be useful are for example:

a) inclusion compounds {found in both Chemical Abstracts results and Patbase}
e.g. Patbase record **Family number: 3075611**

Title: [EN] Process of making a synthetic resin product containing a molecular **inclusion** compound in cyclodextrin

See http://en.wikipedia.org/wiki/Inclusion_compound

b) clathrate {found in Patbase}
see http://en.wikipedia.org/wiki/Clathrate_compound

These terms are both examples of where a compound or its impact has been replaced by terms describing its function.

2) repeat the same basic search in the Derwent World Patent Index database.

This database does not use the CAS Registry Numbers but has its own system for indexing specific chemicals – the Derwent Registry Number (DRN). I would use the EXPAND command in the CN field to get the appropriate numbers for (beta-) cyclodextrin.

The DRN forms a separate part of the DWPI database in STN. These numbers can be searched in the patent family records with the /DCR suffix.

Other search options

Up to now I have looked for relevant material retrieved by combining the 3 concepts:
Adhesives + CD (carriers) + Odorous material

However I have not included in my strategies to date the specific adhesives disclosed in EP 1278810 {see my table of 4 concepts above}. Is it possible to expand my search to include these materials? Well I know from experience that searchers combining for example:

PVA + CD + perfume

will retrieve many documents that are not relevant to this request

For example in Patbase:

Search 10: (TAC=((polyvinyl alcohol) and cyclodextrin* and perfume*)) (Results 32)

Gave the following results

1) US2009285768A

Compositions and Methods Incorporating Photocatalysts

2) US2003104969A

Laundry system having unitized dosing

3) US2007259170A

Films with microcapsules



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4) US2005101501A
Perfume composition

5) US2008274149A
Encapsulation and Controlled Release of Biologically Active Ingredients with Enzymatically Degradable Microparticulate, Hyperbranched Polymers

6) US2004071757A
Inhalation antiviral patch

7) US2002176879A
SKIN DEODORIZING COMPOSITIONS

8) US2009053271A
Reverse-Phase Microcapsules for Active Ingredients, Simplified Process of Manufacture Thereof and Combined Formulation Wdg- Cs,Zc, Ec-

None of which are relevant.

There is no point in combining the materials with any of the terms already used to describe the adhesive concept – this would only result in a subset of the answers already looked at in set L26.

Instead I will try combining the materials with the 4th concept from my table “Dry form” – this might give me more generic disclosures that may be relevant to adhesives.



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Continued search from L26

=> file reg

=> s 9005-25-8

L27 1 9005-25-8

Registry Number for starch

=> file hcaplus

=> s starch {set L28}

For starch or starches

=> s powder or granule

=> s dry or dried

These 2 sets L29 and L30 together with L13 represent the FORM concept for this search. By having a separate set for PASTE when looking for WALLPAPER PASTE earlier in this search I have the flexibility to combine this set into the form concept without having to re-search for this term.

=> s l13 or l29-l30

The form concept is now set L31

=> s l28(2a)l31 {set L32}

"starch" within 3 terms of the form concept

=> s l27(l)l31 {set L33}

Most Registry Numbers are found as Index Terms in the IT field – although some will be found in the abstract. In the IT field the L proximity operator looks for terms found in the same Index Term and its descriptive phrase – for example

IT 9005-25-8D, Starch, pregelatinized

(compressible, highly viscous polysaccharide and polyol powder)

This only associates terms but does not necessarily link them together as a compound concept

=> s l27(2w)l31 {set L34}

Here using the closer proximity operator 2W makes it much more likely that the 2 concepts are more closely associated – for example

IT 9005-25-8, Starch, uses

(dried food; artificial vomiting object composition containing flavin,
and use for artificial vomiting object)

The nested way that the indexing is constructed in Chemical Abstracts means that the terms at the beginning of the descriptive phrase or at the end of Index Term are associated with the Index Term

=> s l32 or l34

Combined set L35 for starch + form

=> s l35 and l19

Starch + form + CD

=> s l10 and l36

Starch + form + CD + odorous L37

=> s l37 and p/dt

=> s l38 not pry.b>2001

=> s l39 NOT 20010502-20011231/PRD.B

=> s l40 not l26

This retrieved 3 answers not in first set of results

This same approach was extended to CELLULOSE



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=> file reg

=> s 9004-67-5

L42 1 9004-67-5

Registry Number for Methylcellulose – in real situation should have other RNs such as for cellulose itself

=> file hcaplus

=> s ?cellulose or ?celluloses {set L43}

For terms ending with cellulose or celluloses – as before the use of left-hand truncation stops the automatic searching for plural terms

=> s I42 or I43

Combined set L44 for the (limited) cellulose concept – could have used more synonyms or other specific cellulose derivatives

=> s I44(2a)I31 {set L45}

“cellulose” within 3 terms of the form concept

=> s I45 and I19

cellulose + form + CD

=> s I10 and I46

cellulose + form + CD + odorous L47

=> s I47 and p/dt

=> s I48 not pry.b>2001

=> s I49 NOT 20010502-20011231/PRD.B

=> s I50 not (I26 or I40)

This retrieved 4 answers not in previous sets of results including:

L51 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2012 ACS on STN

AN 1995:275713 HCAPLUS

DN 122:89141

OREF 122:16723a,16726a

TI Long-lasting fragrance compositions containing hydroxyalkylated
β-cyclodextrin

.....

AB Long-lasting fragrance compns. contain fragrances(1-30 weight%) and
alcs. with addition of hydroxyalkylated β-cyclodextrin.

.....

IT 7585-39-9D, β-Cyclodextrin, hydroxyalkylated
(long-lasting fragrance compns. containing hydroxyalkylated
β-cyclodextrin and other ingredients)

IT 7631-86-9, Silica, biological studies 9002-88-4, Polyethylene
9004-34-6, Cellulose, biological studies
(powders; long-lasting fragrance compns. containing
hydroxyalkylated β-cyclodextrin and other ingredients)

This same approach could be extended to PVA – although not sure how successful this might be.



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Future Search Options

From my initial list of possible searches:

- Combination of all 3 concepts – adhesive + cyclodextrin (CD) + odour
- Adhesives containing a perfume (for other carriers instead of CD)
- CD plus odour plus specific “adhesive materials”
- CD in adhesives

I have constructed searches have looked for items 1 and 3, although further work if necessary further work could be done on both of these.

The second search seems harder to construct although the function terms CLATHRATE and INCLUSION COMPOUNDS are relevant here.

The fourth search would require a closer association between the 2 concepts. The inclusion of Patent Classification codes to retrieve adhesives means that some more thought would be required to ensure that more relevant material was retrieved – for example would this requiring searching the Claims of full-text databases?

In reality an opposition search such as this would stop as soon as I had agreed with my attorney that I had retrieved sufficient material for the preparation of an opposition statement to the EPO. If possible I report relevant documents to my attorney as they are found – this helps us to agree when I can stop searching and also if I need to look for alternative/more focussed prior art to supporting existing documents and arguments.