

TEACHING BIBLIOMETRIC ANALYSIS AND MS/DOS COMMANDS

Henri DOU, Luc QUONIAM and Parina HASSANALY

*Centre de Recherche Rétrospective, Faculté des Sciences St. Jérôme,
13397 Marseille cédex 13, France*

Received 11 April 1988

Revised 4 July 1988

Abstract. Today, downloading references is a common practice in documentation. Most of the people use this technique to obtain a better presentation of the results or to include them in reports or in home-made databases. In this paper we want to present how, using only the capability of MS/DOS (the most common microcomputer operating system), it is possible to start some simple bibliometric studies. This approach has been successfully used at the CRRM of Marseille in teaching.

1. Introduction

Considering the growing interest in Bibliometry due to the powerful analysis of information and innovation that is possible with it, we developed a method to improve bibliometric teaching and practice of the MS/DOS commands. Since bibliometry will be applied mainly on microcomputers, we felt that a good knowledge of MS/DOS is necessary prior to using any bibliometric software.

Our main goals in this study are to:

- get people involved in the use of MS/DOS commands,
- get people to use bibliometry.

2. What is bibliometry

Bibliometry is a statistical treatment of bibliographies which now is often done on downloaded data. One of the goals of bibliometry is to provide a simple presentation of the results, so that a reader can get, often at a glance, the structure and the main ideas present in her/his bibliography.

Various software has been developed by producers such as Derwent (Patstat) [1] or CNIC (Signes) [2], or by various laboratories such as the SERPIA (Co-words) [3] or the CRRM (Datalink, Pole) [4].

```

USER:
FILE RAPRA

  SS 1 /C?
USER:
REINFORCED PLASTIC/IT AND 8801/IS

PROG:
      OCCURS      TERM
      10504      REINFORCED PLASTIC/IT
      1641      8801/IS

SS 1 PSTG (103)

SS 2 /C?
USER:
GET IT RANK TOP 20

PROG:
THERE ARE 674 UNIQUE VALUES.
OCCURRENCES      TERM
  103      REINFORCED PLASTIC
   93      PLASTIC
   79      COMPANIES
   79      COMPANY
   62      THERMOSET
   61      GLASS FIBRE-REINFORCED PLASTIC
   61      GRP
   52      SHORT ITEM
   41      PRODUCT ANNOUNCEMENT
   40      THERMOPLASTIC
   37      TECHNICAL
   34      COMPOSITE
   29      DATA
   25      UNSATURATED POLYESTER
   21      FIBRE-REINFORCED PLASTIC
   20      MECHANICAL PROPERTIES
   18      POLYESTER RESIN
   18      REINFORCED THERMOPLASTIC
   16      AUTOMOBILE
   15      CARBON FIBRE-REINFORCED PLASTIC

```

Fig. 1. A search using the GET command of Orbit Information Technology.

Even the hosts have developed commands which are the beginning of a statistical approach to the content of a particular field of a reference. For instance GET (5, 7), ZOOM (5, 7), MEM (5, 6, 7) allow such facilities. But, performed online, these commands are not cost effective and also are limited in some cases by the memory size of the buffer associated with the command in the host computer.

An example of a bibliometric analysis using such an online command can be given by looking at the results obtained with the GET command of Orbit Information Technology using the Index Terms of the Rapra file combined with a classification code (see figure 1).

3. What must be analyzed

The material to be analyzed consists of data generally downloaded from various databases. The best approach is to construct a search large enough to retrieve even the side ideas concerned with the subject (8), and to download all the references (without the abstracts) on your micro-computer. The abstracts are not considered in this paper which is just a teaching approach to bibliometry, because of the file size they will generate. When this is done, all the fields may be subjected to offline analysis; words, languages, document types... can be extracted and sorted, and the results presented as tables or graphs.

4. What are the main steps in bibliometry

The main steps in bibliometry are in our opinion the following:

- verification of the downloaded data: are all the fields present, are the letters correct...
- extraction of one particular field for analysis,
- extraction of all the words of that field, according the separator, and subsequent elimination or replacement of words if necessary,
- sorting and counting the remaining words, eventually computing the word pairs present in the same field,
- presentation of the results in the best possible ways.

Most of the time, all these operations are performed by dedicated software, and often the end user would not see all the processing.

5. Simple treatment with MS/DOS

MS/DOS contains very powerful commands and capabilities which allow a beginner in bibliometry or a searcher to extract the main feature of his/her bibliography.

We will present the main operations in a logical order, and we assume only that the MS/DOS directory is included in the PATH command in the file AUTOEXEC.BAT, present on the root directory of the computer. This will allow people to reach any MS/DOS commands from all the other directories.

A. Automatic reading

Most people read a file using the command TYPE XXX where XXX is the name of the file. This is not easy, because the data come too fast, and also because stopping them by CTRL C stops the command type, and obliges the reader to start all over again. CTRL S is better than CTRL C since we remain in the type mode, but because of the scrolling speed it is not possible to stop exactly where necessary.

The best approach is to create a BATCH File, using EDIT or COPY CON which are two simple editors.

Edit works by typing EDIT XXX where XXX is the name of the file to edit, and uses SHIFT F2 for deleting a line, SHIFT F5 to store the file on the current directory and SHIFT F1 allows to exit from the edit mode without storing the file on disk. COPY CON : XXX where XXX is the name of the file to be created works in the same way, but the function keys are not used, just type CTRL Z on the last line (this is the mark for the End Of File), and press carriage return to store the file on the current directory.

The BATCH file is a computer-executable file and has a name of the forms: XXX.BAT; XXX (the name of the file) and .BAT (the extension). When using the file, do not type the extension (.BAT).

The automatic reading of screen after screen is obtained using the batch file read, for instance:

| | |
|---------------------|---|
| COPY CON : READ.BAT | invoke copy con plus file name |
| ECHO OFF | the invoked commands won't appear on screen |
| CLS | clear screen |
| TYPE %1 ; MORE | show file on screen after screen |
| CTRL Z | end the copy con command |

The file is used by typing: READ YYY and return, where YYY is the name of the file to be read. This name, will take the place of parameter %1 in the file.

B. Field extraction

This can be made with the commands SORT and FIND. Two cases have to be considered, depending on the file size (SORT):

- small file, let us say smaller than 60 K
- larger file in the magnitude of 300 K.

This distinction is made because the command used may have memory size problems depending on the size of the files.

1. Small file

Use the SORT command as follows:

SORT XXX where XXX is the name of the file to be sorted. All the lines which compose the file XXX will be sorted according to the ASCII value of the first character of the line.

For these examples, a line size of 60 characters or more is sufficient. Do not forget that the line size can be changed using special features of the host software (e.g. TERM LS 65 with ORBIT).

Then, reading the file, you will see that all the fields which begin with the same letters or groups of letters will be all together. This way to read a set of references is quite unusual. It is meaningless as far as bibliographic references are concerned, but

it gives various details (as the examples at the end of this paper emphasize) on languages, sources, first author, primary section codes... In fact, each time that a field in a reference contains useful information at the beginning, this information will be sorted and compared with the information of the same type contained in the other references:

SO – Bull. Soc. Chim. Belg.
 SO – Bull. Soc. Chim. Japan
 SO – Chem.Com.

.....

Using the syntax SORT XXX, the data sorted will appear directly on the screen. To store the new file (the sorted file) on the repertory, using the syntax:

SORT < XXX > YYY where XXX is the name of the file to be sorted, and YYY the name of the sorted file.

To avoid retyping this syntax all the time, build up a BATCH file in the following way:

```
COPY CON: SORTED.BAT
ECHO OFF
CLS
SORT < %1 > %2
CTRL Z
```

Use this file by typing: SORTED XXX YYY where XXX is the name of the file to be sorted and YYY the name of the resulting file. Note that the name SORT cannot be used for the Batch file, because it is already the name of an MS/DOSQ command.

Extraction of one field: This is done by using the command FIND, and the already sorted file YYY.

Use the following syntax:

FIND "SO" YYY > ZZZ where YYY is the name of the sorted file, and ZZZ the name of the file which contains all the extracted fields. "SO -" is the array to be found in the different lines of the YYY file. All the lines containing SO (e.g. the Source field), will be retrieved and stored in file ZZZ.

Of course, if you do not want to type all the sequence each time, make up a batch file:

```
COPY CON: LOOK.BAT
ECHO OFF
CLS
FIND "%1" %2 > %3
```

Use the file as follows: LOOK SO YYY ZZZ and each parameter %1 %2 %3 will be replaced in the file by SO YYY ZZZ. The only point which remains, is that if you

have many items beginning with the same sequence of letters (SO for instance or SO followed by a journal name) it is necessary to count them. There is no direct counting program in MS/DOS, but it is possible nevertheless to use again the FIND command with the option /N. This option will indicate the line number in the reference file, of the lines containing for instance the SO sequence.

The syntax is as follows:

FIND /N "SO" ZZZ WWW where ZZZ is the file containing all the lines with the SO, and WWW is the file identical to the former one but with all the lines numbered.

This FIND command may be again automatized using a batch file:

```
COPY CON: ANALYS.BAT
ECHO OFF
CLS
FIND /N "%1" %2 %3
```

The syntax will be ANALYS SO ZZZ WWW.

Then, when you read the file, you can count the number of items by simply subtracting the line numbers.

2. Large file

Because the SORT command cannot operate on large file because of memory problems, it is necessary to operate in a different order. The only way is to extract the field with the command FIND. This will give rise to a smaller file, and it is this file which will be sorted. The numbering of the lines will still be performed on the sorted file, using FIND with the option/N.

6. Outline of the drills provided

This simple approach to bibliometry will provide the student with:

- * practice of MS/DOS instructions:
 - Commands: TYPE, EDIT, COPY CON, PATH, ECHO ON/OFF, CLS, DIR,
 - Batch Files (.BAT): including parameter transfer %,
 - MS/DOS special characters: <, >, |,
 - Filter commands: FIND (options), SORT (options), MORE.
- * views on the quality of the format of references,
- * practice of fast bibliography reading,
- * bibliometric practice; for instance application of Bradford's law (using the SO source field),
- * division between languages,
- * division between document types,
- * occurrences of the same author at the first place in the author field,

- * vocabulary and indexing practice by analysis of a key-word or supplementary term field, downloaded after expanded by EXPAND or NBR commands.
- * practice in online commands such as GET, ZOOM, MEM, PRT SEL, EXPAND, NBR.
- * evidence that printed references do not give all the possibilities of a bibliography.

This method, can be used anywhere, because downloading involves microcomputers which most of the time operate with MS/DOS. There is effectively no cost since any bibliography stored as an ASCII file can be used as starting material, and the exercise is conducted offline.

7. Conclusion

The use of MS/DOS commands in conjunction with bibliometric studies has several limits. The main one which is general is that only data occurring first in a field may be sorted. This applies to the most used file format in bibliography. Of course, if the format is such that on the same line data occur at the same place (table format), the data could be sorted at different places on a line using the SORT options (SORT /+ xx where xx is the first column to be sorted).

This limits the use of MS/DOS commands to sort in most cases to the following fields:

Document Type, Languages, Source field (Journal name for instance), first author, first section or codes, dates (if there is an existing data field), and more generally all data which are placed in a unique reference field, or in first position of any fields.

On the other hand, sophisticated bibliometric treatment such as co-occurrences of words or codes is not possible; only a simple count can be made.

This nevertheless constitutes a good approach either to the use of sophisticated software such as cluster analysis, or factorial analysis, or the use on online databases of GET, ZOOM and MEM commands.

Appendix

Extraction with FIND "SO" of the source field of a large file (COAL OXIDATION) of about 500 K:

```

----- A:COALOXID
SO - U.S. 4592814, 12 pp. Cont. - in part of U.S. Ser. No. 496,799, abandoned.,
SO 06.03 PAT APP = 653664, 84.09.21, PAT PRTY = 496799
SO - Thermochim. Acta (THACAS), V 103 (1), p. 157-62, 1986, ISSN 00406031
SO - AIChE J. (AIChEAC), V 32 (?), p. 1132-7, 1986, ISSN 00011541
SO - Reclam. Reves. Res. (RRREDDY), V 4 (4), p. 279-91, 1986, ISSN 0167644X
SO - Jpn. Kokai Tokkyo Koho 8537920, 4 pp., 86.02.22 PAT APP = 84/159021, 84.
SO 31. PCL(IPC) C21D-008/10A C21D-009/08B
SO - Ger. Offen. 3432518, 5 pp., 86.03.13 PAT APP = 3432518, 84.09.05, PCL(I
) G01N-001/28A G01N-033/02B
SO - Urja (URJADF), V 19 (6), p. 401-2, 1986, ISSN 03789535
SO - Fire Sci. Technol. (Tokyo) (FSCITDF), V 5 (2), p. 123-7, 1985, ISSN 02859
SO - Khim. Tverd. Topl. (Moscow) (KTVTBY) (3), p. 60-6, 1986, ISSN 00231177
SO - Khim. Tverd. Topl. (Moscow) (KTVTBY) (3), p. 53-9, 1986, ISSN 00231177
SO - Khim. Tverd. Topl. (Moscow) (KTVTBY) (3), p. 36-9, 1986, ISSN 00231177
SO - Izv. VUZOV, Stroit. Arkhit. (IVSADO) (4), p. 99-103, 1986
SO - U.S. 4588418, 4 pp., 86.05.13 PAT APP = 464617, 83.02.07, PCL 48/197R P
(IPC) C10J-003/46A
SO - Ger. (East) 227979, 6 pp., 85.10.02 PAT APP = 264157, 84.06.14, PCL(IPC
) C10J-003/46A C10J-003/16B
SO - Koks Khim. (KOKKAI) (6), p. 36, 1986, ISSN 00232815
SO - Fuel (FUELAC), V 65 (6), p. 821-5, 1986, ISSN 00162361
SO - Biotechnol. Bioeng. Symp. (BIBSBR), V 15 (Symp. Biotechnol. Fuels Chem.,
th, 1985), p. 307-19, 1986, ISSN 05726565
SO - Nippon Kogyo Kaishi (NIKKAY), V 100 (1158), p. 643-50, 1984, ISSN 036941
SO - Report (IL/SGS/INN-92; Order No. PB85-242089/GAR.), 36 pp., 1985 (From C
[20]SO - Acta Mont. (ACMTCX), V 67, p. 5-21, 1984, ISSN 03651398
[21]SO - Adv. Chem. Ser. (ADCSAJ), V 194 (Moessbauer Spectrosc. Its Chem. Ap
) p. 265-301, 1981, ISSN 00652393
[22]SO - Adv. Hydrogen Energy (AHENDB), V 4 (Hydrogen Energy Prog. 5, Vol. 3)
p. 1135-43, 1984, ISSN 02762412
[23]SO - Afinidad (AFINAE), V 39 (381), p. 413-15, 1982, ISSN 00019704
[24]SO - AIChE J. (AIChEAC), V 27 (6), p. 920-7, 1981, ISSN 00011541
[25]SO - AIChE J. (AIChEAC), V 27 (6), p. 937-45, 1981, ISSN 00011541
[26]SO - AIChE J. (AIChEAC), V 29 (2), p. 338-40, 1983, ISSN 00011541
[27]SO - AIChE J. (AIChEAC), V 31 (6), p. 965-72, 1985, ISSN 00011541
[28]SO - AIChE J. (AIChEAC), V 32 (7), p. 1132-7, 1986, ISSN 00011541
[29]SO - Anal. Chem. (ANChAM), V 55 (3), p. 432-5, 1983, ISSN 00032700
[30]SO - Anal. Chem. (ANChAM), V 55 (9), p. 1564-8, 1983, ISSN 00032700
[31]SO - Anal. Chim. Acta (ACACAM), V 174, p. 211-23, 1985, ISSN 00032670
[32]SO - Appl. Environ. Microbiol. (AEMIDF), V 45 (3), p. 743-7, 1983, ISSN
92240
[33]SO - Appl. Environ. Microbiol. (AEMIDF), V 48 (1), p. 229-31, 1984, ISSN
992240
[34]SO - Aromatikkusu (AROMBO), V 36 (7/8), p. 161-72, 1984, ISSN 03656187
[35]SO - Atmos. Environ. (ATENBP), V 16 (3), p. 455-66, 1982, ISSN 00046981
[36]SO - Atmos. Environ. (ATENBP), V 17 (9), p. 1765-71, 1983, ISSN 00046981
[37]SO - Belg. 894512, 16 pp., 83.01.17 PAT APP = 2091, 82.09.28, PAT PRTY =
5876 (IN US), 81.09.28, PAT PRTY = 305877 (IN US),
[38]SO - Biotechnol. Bioeng. (BIBIAU), V 26 (6), p. 604-12, 1984, ISSN 00063
[39]SO - Biotechnol. Bioeng. Symp. (BIBSBR), V 15 (Symp. Biotechnol. Fuels C)
7th, 1985), p. 307-19, 1986, ISSN 05726565
[40]SO - Braz. Pedido PI 8104706, 19 pp., 83.03.01 PAT APP = 81/4706, 81.07.
PCL(IPC) C07C-079/46
[41]SO - Brit. UK Pat. Appl. 2082171, 5 pp., 82.03.03 PAT APP = 81/21535, 81
.13, PAT PRTY = 80/1755 (IN HU), 80.07.14, PCL(IPC)
[42]SO - Brit. UK Pat. Appl. 2093476, 82.09.02 PAT APP = 81/5262, 81.02.19,
L(IPC) C10J-003/02
[43]SO - Brit. UK Pat. Appl. 2099843, 33 pp., 82.12.15 PAT APP = 82/12202, 8
4.27, PAT PRTY = 272419 (IN US), 81.06.10, PAT PRTY =
[44]SO - Brit. UK Pat. Appl. 2126493, 9 pp., 84.03.28 PAT APP = 82/8225587,
09.08, PCL(IPC) B01J-008/34 F23C-011/02
[45]SO - Brit. UK Pat. Appl. 2145425, 4 pp., 85.03.27 PAT APP = 84/17208, 84
.05, PAT PRTY = 83/18488 (IN GB), 83.07.08, PCL(IPC)
[46]SO - Bull. Chem. Soc. Jpn. (BCSJA8), V 58 (10), p. 3016-20, 1985, ISSN 0
2673
[47]SO - C. R. Acad. Sci., Ser. 2 (CRAMED), V 302 (9), p. 621-6, 1986
[48]SO - Can. J. Chem. Eng. (CJCEA7), V 61 (4), p. 568-74, 1983, ISSN 000840
[49]SO - Can. J. Earth Sci. (CJESAP), V 21 (11), p. 1209-28, 1984, ISSN 0008

```


Same source field after a SORT and a count with FIND /N:

```
(ND), USA, 58202
00162361
00162361
00162361
00162361
00167525
03551398
03574655
04706234
0585430X
1-plate, 1983, ISSN 04354117
1981, ISSN 00301574
1982, ISSN 00231169
1982, ISSN 03801330
1983, ISSN 00456535
1984, ISSN 0016721
1985, ISSN 00231169
1985, ISSN 00298131
1985, ISSN 03783820
1987, (From Energy Res. Abstr. 1987, 12(11), Abstr.
1987, ISSN 00231169
1987, ISSN 00231177
3001
332-41, 1981, ISSN 00073938
540-1, 1986, ISSN 00023469
661-4, 1986
68-9, 1982, ISSN 00023205
68200
812
83.09.12, PCL 44/51 PCL(IPC) C10L-001/32
83/8370, 83.05.20, PCL(IPC) C10G-067/04
99-100, 1985
```

```
-7-
-8-
-9-
AN - CA00-127278(16)
AN - CA00-141700(18)
AN - CA00-159096(20)
AN - CA00-24137(4)
AN - CA00-24177(4)
AN - CA00-36573(6)
AN - CA01-133706(16)
AN - CA01-60732(8)
AN - CA01-75907(10)
AN - CA01-79186(10)
AN - CA02-163337(20)
AN - CA02-205407(24)
AN - CA02-9504(2)
AN - CA03-107232(14)
AN - CA03-153155(20)
AN - CA03-180479(22)
AN - CA03-24541(4)
AN - CA03-73475(10)
AN - CA04-212819(24)
AN - CA05-118576(14)
AN - CA05-121477(14)
AN - CA05-121478(14)
AN - CA06-104894(14)
AN - CA06-182097(22)
AN - CA06-198846(24)
```

Bibliography on (ASPHALTENES OR TARs) AND WATER, of 55K (47 references) after a SORT. Note for instance the language field LA, where at a glance the partition between English and Russian is quite noticeable. Note also the occurrence of the primary section of Chemical Abstracts. See also that the other lines of the bibliography which begins by a lower case or by a figure come first. Other remarks can be made by the reader, and used to generate usefull comments from the students:

FIND "POLY" WSCA

```

----- WSCA
[110] EPOXY/POLYESTER/CN
[111] EPOXY/POLYESTER/CN
[146] HYDROPHILIC POLYMER/CN
[150] INTERPOLYMER/CN
[151] INTERPOLYMER/CN
[218] POLYESTER/CN
[219] POLYESTER/CN
[220] POLYETHYLENE/CN
[221] POLYISOCYANATE/CN
[222] POLYOL/CN
[223] POLYSTYRENE/CN
[224] POLYSTYRENE/CN
[225] POLYTETRAFLUOROETHYLENE/CN
[226] POLYURETHANE RESIN/CN
[227] POLYURETHANE/CN
[228] POLYURETHANE/CN
[229] POLYURETHANE/CN
[230] POLYURETHANE/CN
[231] POLYURETHANE/CN
[232] POLYVINYL ACETATE/CN
[233] POLYVINYL CHLORIDE/CN
[234] POLYVINYL CHLORIDE/CN
[235] POLYVINYL CHLORIDE/CN
[236] POLYVINYL CHLORIDE/CN
[237] POLYVINYL/CN
[3] EPOXY/POLYESTER/CN
[4] EPOXY/POLYESTER/CN
[5] HYDROPHILIC POLYMER/CN
[6] INTERPOLYMER/CN
[7] INTERPOLYMER/CN
[8] POLYESTER/CN
[9] POLYESTER/CN
[10] POLYETHYLENE/CN
[11] POLYISOCYANATE/CN
[12] POLYOL/CN
[13] POLYSTYRENE/CN
[14] POLYSTYRENE/CN
[15] POLYTETRAFLUOROETHYLENE/CN
[16] POLYURETHANE RESIN/CN
[17] POLYURETHANE/CN
[18] POLYURETHANE/CN
[19] POLYURETHANE/CN
[20] POLYURETHANE/CN
[21] POLYURETHANE/CN
[22] POLYVINYL ACETATE/CN
[23] POLYVINYL CHLORIDE/CN
[24] POLYVINYL CHLORIDE/CN
[25] POLYVINYL CHLORIDE/CN
[25] POLYVINYL CHLORIDE/CN
[27] POLYVINYL/CN

```

After a PRT SEL (File WSCA, Orbit Information Technologies) and a SORT, count with the FIND /N command:

```
[1] (METH)ACRYLIC ACID/CN
[2] ACETALDEHYDE/CN
[3] ACETALDEHYDE/CN
[4] ACETONE/CN
[5] ACIDIFIED/CN
[6] ACRYLIC ACID/CN
[7] ACRYLIC LATEX/CN
[8] ACRYLIC/CN
[9] ACRYLIC/CN
[10] ACRYLIC/CN
[11] ACRYLIC/CN
[12] ACRYLIC/CN
[13] ACRYLIC/CN
[14] ACRYLIC/CN
[15] ACRYLIC/CN
[16] ACRYLIC/CN
[17] ACRYLIC/CN
[18] ACRYLIC/CN
[19] ACRYLIC/CN
[20] ACRYLIC/CN
[21] ACRYLIC/CN
[22] ACRYLIC/CN
[23] ACRYLONITRILE/CN
[24] ALANINEAMINOTRANSFERASE/CN
[25] ALCOHOL/CN
[26] ALCOHOL/CN
[27] ALDEHYDE/CN
[28] ALKANE/CN
[29] ALKENES/CN
[30] ALKYD RESIN/CN
[31] ALKYD RESIN/CN
[32] ALKYD RESIN/CN
[33] ALKYD RESIN/CN
[34] ALKYD RESIN/CN
[35] ALKYD RESIN/CN
[36] ALKYD RESIN/CN
[37] ALKYD RESIN/CN
[38] ALKYD/CN
[39] ALKYD/CN
[40] ALKYD/CN
[41] ALKYD/CN
[42] ALKYD/CN
[43] ALKYD/CN
[44] ALKYD/CN
[45] ALKYD/CN
[46] ALKYL/CN
[47] ALKYNE/CN
[48] ALUMINIUM CHLOROHYDRATE/CN
[49] ALUMINIUM OXIDE/CN
[50] ALUMINIUM/CN
[51] AMIDE/CN
[52] AMINE/CN
[53] AMINOPLAST/CN
[54] ANTIMONY/CN
[55] ARSENIC PENTOXIDE/CN
[56] ARSENIC/CN
[57] ARSENIC/CN
[58] ARSENIC/CN
[59] ARSENIC/CN
[60] ARSENICAL/CN
[61] ARSINE/CN
[62] ASBESTOS/CN
[63] ASBESTOS/CN
[64] ASPHALT/CN
[65] BARIUM METABORATE/CN
[66] BARIUM/CN
[67] BEHENIC ACID/CN
[68] BENZENE/CN
[69] BENZENE/CN
[70] BENZENE/CN
[71] BORON CARBIDE/CN
[72] BORON COMPOUND/CN
[73] BORON/CN
[74] BUTANONE/CN
[75] CADMIUM/CN
[76] CADMIUM/CN
[77] CADMIUM/CN
[78] CADMIUM/CN
```


References

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