



CAS FORMULATIONS™ overview and practical search strategies

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STNext®

 **FIZ Karlsruhe**
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 **CAS**®
A DIVISION OF THE
AMERICAN CHEMICAL SOCIETY

Formulations IP searching is challenging

- **TIME CONSUMING**

- Casting a wide net to ensure comprehensiveness, resulting in a high number of potential hits to review

- **INEFFICIENT**

- Large numbers of full text documents need to be reviewed to eliminate false positives

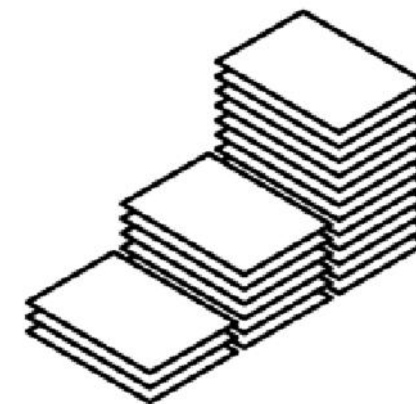
- **MANAGING RISK VS. TIME**

- Concern over leaving yourself and your organization open to risk



Formulations IP searching is challenging

- Hybrid of bibliographic, substance, and brand new formulation content
- Humanly curated formulation data designed for precision searching
- Searchable with STNext[®] power and control



CAS FORMULATIONS is exclusively available on STNext

- Launched September 29, 2019
- Weekly updates
- Log into CAS FORMULATIONS on STNext using its file label:
=> file casformultns

=> file casform and => file casfo - also work!
- Includes most of the features you already enjoy in STN databases
- SDIs are available – weekly, biweekly, monthly



CAS FORMULATIONS offers unparalleled content coverage

Human-indexed
formulations from
patents, journals and
product inserts

Formulations content
originally published in
English, French,
German, Japanese,
Chinese and Korean

Most complete and
comprehensive
source for critical
information on
formulations

Includes oral
medications,
herbicides,
insecticides, flavors,
fragrances and more

20+

years of back file
coverage

CAS FORMULATIONS defines the components of a formulation

- Three main document types in the database
 - Patents (P/DT), Journal articles (J/DT) and Product Inserts (I/DT)
- Each record in CASFORM describes a single formulation
 - Generally **multiple** CASFORM records are extracted out of **one** document
- Every CASFORM record has the following sections
 - Bibliographic details, location, groups with their components, product descriptions, target definition, process notes and experimental data

How to connect CASFORMULTNS to other CAS files

- In CAplus, a record that is covered in CASFORM has an entry in the Other Source field: **CASFORMULTNS/OS**
- In Registry, a substance that is used in CASFORM has an entry in the Locator field: **CASFORMULTNS/LC**
- In CASFORM the accession number of the corresponding CAplus record is posted in the field CAplus Accession Number: **nnnn:nnnnnnn/CPAN**
- In CASFORM the L-number from Registry can be searched to cross-over all CAS RNs

Location information in CASFORM

- The location of every formulation in the document is described
- Broad categories in the LCC field:
 - Claim, example, comparative example, article, SI, table, figure, product insert
- More detailed information is given in the LCD field:
 - Claim 1, 2, 5, 6, 10, 11, 12, 13
 - Example 3, Table 2
 - Article page 2, 4, 5, Figure 3(d)

Moving from the patent text to the CASFORM record

Example 3

Dark Chocolate

[0072] A dark chocolate base with a fat content of 41% and a moisture content of 0.5% was admixed in standard mixing equipment at 100 rpm for 5 minutes at 31° C. was admixed with the following structured liquid [lamellar phase].

58.8%	H ₂ O,
25.6%	erythritol,
8.6%	cocoa butter,
5%	Solec TM8120 (lecithin surfactant) and
2%	butyl lactate

[0073] The result was a dark chocolate matrix with less than 30% fat and 22.7% moisture. The dark chocolate matrix had no off-flavours.

[0074] Subsequently, the composition was varied and it was noted that in the case where the cocoa butter in the structured liquid is replaced with oil, the final product will show a particularly smooth mouth feel. A similar effect can be achieved by increasing the moisture content in the finished

WO2012082866

Group	Group Opt.	Component	Comp Opt.
1	Mandatory	Water	Mandatory
2	Mandatory	Erythritol	Mandatory
3	Mandatory	Cocoa butter	Mandatory
4	Mandatory	Lecithin	Mandatory
5	Mandatory	Butyl lactate	Mandatory
6	Mandatory	Chocolate base	Mandatory
7	Exclude	Flavoring material	Exclude
8	Optional	Oil	Optional

Group definitions in CASFORM

- Groups definitions depend on how the formulation is described
- In most cases, different physical components of the formulation determine the group definition
 - Multi-layered tablets, capsules, phases of an emulsion, agro mixtures
 - In few cases it is grouped by component functions
 - Otherwise every component represents its own group
- Not all components are well-defined specific compounds
- Optionality is captured for both the group and the components
 - Mandatory, Mutually excluding alternatives, One or more, Optional, Preferred, Excluded, Nonpreferred, Undefined

Definitions of groups and components

GROUP G5
GROUP DESCRIPTOR (GDS): disintegrant
COMPONENT LIST: C82-C89
OPTIONALITY (GOP): Mandatory
GROUP VOCABULARY (GVO): Pharmaceutical disintegrants
GROUP AMOUNT (GAM): 0.5-19 wt %

COMPONENT C82
COMPONENT NAME (CNM): polysaccharides
COMPONENT VOCABULARY (CVO): Polysaccharides; Glucides; Polyholosides; Saccharides;
Glycans; Homopolysaccharide
COMPONENT OPTIONALITY (COP): One or more

COMPONENT C83
REGISTRY NUMBER (RN): 9005-25-8
COMPONENT NAME (CNM): starches
PREFERRED CHEM NAME (CN): Starch (8CI, 9CI, ACI)
OTHER NAMES: 1000Y (starch); 1401B; 75A; 75A (polysaccharide);
Amigel 30076; Amijel VA 160
FORM DESCRIPTION (CFR): Desc: starch
COMPONENT OPTIONALITY (COP): One or more

(L)

Words describing the groups and components can be found in the Basic Index

- The (L) operator can be used to link fields within a group/component unit
 - Link a component to its function
 - Link a component to the group description
 - Link the amount availability to a function
 - Link a component to its component or group optionality
- For example:
 - S 9063-38-1 (L) (DISINTEGRA? OR SUPERDISINTEGRA?)
 - S CAM/FA(L)SURFACTANT
 - S ?PARABEN?/CNS (L) EXCLUDE/COP,GOP

Use case 1: Pharmaceutical

- Formulation comprising a magnesium salt, a cannabinoid and at least one additional analgesic compound
 - Defining the magnesium salts as specific or generic components
 - Defining a cannabinoid substance (name and/or structure)
 - Defining the function of an analgesic which doesn't overlap with the first two components
 - Use Registry where possible to define substances
 - Easy crossover of sets of CAS RNs from Registry to CASFORM
 - Combining compounds with functions

=> FILE REG

=> S MG/ELS AND CASFORM?/LC

258432 MG/ELS

2688650 CASFORM?/LC

L1 1344 MG/ELS AND CASFORM?/LC

=> S L1 NOT ALLOY/CI

L2 1192 L1 NOT ALLOY/CI

=> S L2 NOT 1/ELC.SUB

L3 1186 L2 NOT 1/ELC.SUB

<- exclude just magnesium itself

=> S CANNABI?/BI,ENTE

2570 CANNABI?/BI

62 CANNABI?/ENTE

L4 2628 CANNABI?/BI,ENTE

<- Editor notes to Tradenames

=> S L4 AND CASFORM?/LC

L5 154 L4 AND CASFORM?/LC

=> FILE CASFORM

=> S L3 AND L5

421596 L3

9628 L5

L6 1174 L3 AND L5

=> S L6 AND ANALGESIC?(NOTL)(L3 OR L5)

131403 ANALGESIC?

421596 L3

9628 L5

131346 ANALGESIC?(NOTL)(L3 OR L5)

L7 125 L6 AND ANALGESIC?(NOTL)(L3 OR L5)

In these 125 answers the term analgesic is often found in the abstract or product description field. There is an approach to ensure this term is found in the group or component description

```
=> S L6 AND ANALGESIC?(L)CNM/FA(NOTL)(L3 OR L5)
    131403 ANALGESIC?
    4834175 CNM/FA
    421596 L3
    9628 L5
    38744 ANALGESIC?(L)CNM/FA(NOTL)(L3 OR L5)
L8      66 L6 AND ANALGESIC?(L)CNM/FA(NOTL)(L3 OR L5)
```

What if the magnesium salt or the cannabinoid compound were described very generally and not associated to a CAS Registry number?

- We can expand the search to also include more generic names
- When searching **MAGNESIUM?/CNM** the general description has to start with that word. A broader approach is **MAGNESIUM(L)CNM/FA**


```
=> S (L3 OR MAGNESIUM(L)CNM/FA) AND (L5 OR CANNABI?(L)CNM/FA)
L9      2095 (L3 OR MAGNESIUM(L)CNM/FA) AND (L5 OR CANNABI?(L)CNM/FA)
```

```
=> S L9 AND ANALGESIC?(L)CNM/FA(NOTL)(L3 OR L5)
L10     100 L9 AND ANALGESIC(L)CNM/FA(NOTL)(L3 OR L5)
```

```
=> S L10 AND I/DT
      148494 I/DT
L11     6 L10 AND I/DT
```

```
=> S L10 NOT L11
L12     94 L10 NOT L11
```

- There are 6 formulations found in Product Inserts
- The remaining documents will be sorted by patent family using the FSORT command

=> FSORT L12

L13

94 FSO L12

12 Multi-record Families

Answers 1-57

Family 1

Answers 1-11

Family 2

Answers 12-13

Family 3

Answers 14-15

Family 4

Answers 16-17

Family 5

Answers 18-19

Family 6

Answers 20-21

Family 7

Answers 22-25

Family 8

Answers 26-27

Family 9

Answers 28-30

Family 10

Answers 31-47

Family 11

Answers 48-50

Family 12

Answers 51-57

37 Individual Records

Answers 58-94

0 Non-patent Records

AN 2016:281965 CASFORMULTNS

TI Tamper-resistant fixed dose combination providing fast release of two drugs from particles and a matrix

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2016170093	A1	20161027	WO 2016-EP58977	20160422

FD Pharmaceutical Dosage Form: Analgesics

LCD Claim 62, 63, 64, 65, 66

GROUP G1

GDS pharmacologically active ingredient a

GFU active agent; analgesics

GRA 1-1:10-150

CMPS C1-C20

GOP Mandatory

GAM 50 wt %

COMPONENT C3

RN 951260-91-6

CNM **phenylpiperidine derivatives**

CCN Piperidine, phenyl- (ACI)

CFU analgesics

COP One or more

GROUP G2
GDS pharmacologically active ingredient b
GFU active agent; non-opioid analgesic
GRA 10-150:1-1
CMPS C21-C70
GOP Mandatory
GAM 50 wt %

COMPONENT C60
CNM **cannabinoids**
CFU non-opioid analgesic
COP One or more

GROUP G6
GDS lubricant
GFU lubricant
CMPS C90-C91
GOP Mandatory
GAM 0.2-19 wt %

COMPONENT C90
RN **557-04-0**
CNM **magnesium stearate**
CCN **Octadecanoic acid, magnesium salt (2:1)**
CFU lubricant
COP One or more

What were the most common magnesium compounds?

=> ANALYZE HIT CNM L10 1-

ANALYZE IS APPROXIMATELY 83% COMPLETE

L15 ANALYZE L10 1- CNM HIT : 486 TERMS

=> D WITH "MAGNES"

L15 ANALYZE L10 1- CNM HIT : 486 TERMS

TERM #	# OCC	# DOC	% DOC	CNM
14	9	9	9.00	CHOLINE MAGNESIUM SALICYLATE
16	9	9	9.00	MAGNESIUM ALUMINUM SILICATE
17	9	9	9.00	MAGNESIUM SALICYLATE
26	9	7	7.00	MAGNESIUM STEARATE
30	7	7	7.00	MAGNESIUM CARBONATE
33	7	6	6.00	MAGNESIUM OXIDE
44	6	6	6.00	MAGNESIUM CHLORIDE HEXAHYDRATE
45	6	6	6.00	MAGNESIUM SALTS

Impact of using CASFORMULTNS in pharmaceutical use case

- Without CASFORM we would retrieve:
 - CAplus: 205 records, of which 190 patent documents
 - WPINDEX: 226 records (all patent documents); 160 not found in CAplus
 - Total number of patents to review: 350
- With CASFORM we would retrieve:
 - CASFORM: 6 product inserts plus 49 patent documents
 - CAplus: 74 records not covered in CASFORM
 - WPINDEX: 78 records not found in CAplus or CASFORM
 - Total number of patents to review: 201
 - This includes 22 unique patent not found in CAplus/WPINDEX
- Time save is 42% with a higher quality result

Use case 2: Agrochemical

- Formulation comprising a triazole-carbinol substructure as well as a strain of *Clonostachys Rosea* as the active ingredient in a pesticide. Prefer to have enabled (exemplified) formulations where the strain is a required component.
 - Running the substructure search on the triazole-carbinol in Registry
 - Moving answers to CASFORM
 - Combining with Clonostachys linked to the group and component units
 - Linking Clonostachys to the relevant optionality terms
 - Limit to formulations defined in examples
 - Comparing this search result to a query in CAplus

Start in Registry with the structure search

=> FILE REG

=>

Uploading structure file: 2020_0049_Structure

L1 STRUCTURE UPLOADED

=> S L1 SSS FUL

FULL SEARCH INITIATED 09:33:16

100.0% PROCESSED 878482 ITERATIONS

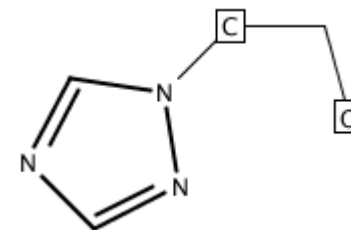
SEARCH TIME: 00.00.02

L2 72016 SEA SSS FUL L1

=> S L2 AND CASFORM?/LC

2688649 CASFORM?/LC

L3 1506 L2 AND CASFORM?/LC



72016 ANSWERS

=> FILE CASFORM

=> S L3

L4 25180 L3

=> S L4 AND CLONOSTACHYS

503 CLONOSTACHYS

L5 344 L4 AND CLONOSTACHYS

=> S L4 AND CLONOSTACHYS(L)MANDATORY/COP,GOP

L6 313 L4 AND CLONOSTACHYS(L)MANDATORY/COP,GOP

=> S L4 AND CLONOSTACHYS(L)(MANDATORY OR MUTUAL? OR PEF?)/COP,GOP

L7 339 L4 AND CLONOSTACHYS(L)(MANDATORY OR MUTUAL? OR PEF?)/COP,GOP

=> S L7 AND P/DT

4396559 P/DT

L8 339 L7 AND P/DT



=> S L8 AND (EXAMPLE OR COMPARATIVE EXAMPLE)/LCC

2695049 EXAMPLE/LCC

60077 COMPARATIVE EXAMPLE/LCC

L10 206 L8 AND (EXAMPLE OR COMPARATIVE EXAMPLE)/LCC

=> FSORT L10

L11 206 FSO L10

3 Multi-record Families	Answers 1-200
Family 1	Answers 1-174
Family 2	Answers 175-187
Family 3	Answers 188-200
6 Individual Records	Answers 201-206

Not all answers are highly relevant

L11 ANSWER 1 OF 206 CASFORMULTNS COPYRIGHT 2020 ACS on STN

TI Preparation of pesticidally active tetracyclic derivatives with sulfur containing substituents

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2017001311	A1	20170105	WO 2016-EP64778	20160627

FD Pesticidal Composition

LCC [Example](#)

LCD Example, Table 2

GROUP G2

GDS additives

GFU additives

CMPS C2-C164; C166-C169; C171-C253;
C1828-C1894; C1897-C1943

GOP Mandatory

COMPONENT	C1226
RN	94361-06-5
CNM	cyproconazole
CCN	1H-1,2,4-Triazole-1-ethanol, α -(4-chlorophenyl)- α -(1-cyclopropylethyl)- (9CI, ACI)
CFU	biologically active compounds
COP	Mutually exclusive alternatives
COMPONENT	C1506
CNM	Clonostachys rosea
CFU	microbials
COP	Mutually exclusive alternatives

L11 ANSWER 175 OF 206 CASFORMULTNS COPYRIGHT 2020 ACS on STN

AN 2015:239829 CASFORMULTNS

TI Compositions comprising a triazole compound and a biopesticide

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

-----	----	-----	-----	----
-------	------	-------	-------	------

WO 2015003908	A1	20150115	WO 2014-EP63412	
---------------	----	----------	-----------------	--

20140625

FD Composition: Fungicides

LCC **Example**

LCD Example 5

GROUP G1

GDS Additional ingredients

CMPS C1-C31

GOP Mandatory

COMPONENT C1

RN **1419875-41-4**

CCN 1H-1,2,4-Triazole-1-ethanol, α -[2-chloro-4-(4-chlorophenoxy)phenyl]- α -1-propyn-1-yl- (ACI)

CAM 2-60 wt %

COP Mandatory

GROUP G2

GFU pesticide

CMPS C32-C66; C68-C82; C84-C98; C100-C153;
C156-C170

GOP **Mandatory**

COMPONENT C46

CNM **Gliocladium roseum**

CAM 2-60 wt %

CFU pesticide

COP **Mandatory**

Top-up search in CAplus excluding CASFORM records

=> FILE CAPLUS

=> TRA L11 CPAN /AN <- transferring CASFORM results to CAplus

L12 TRANSFER L11 1- CPAN : 9 TERMS

L13 9 L12/AN

ALL TERMS IN L12/AN RETRIEVED.

=> S L2 AND CLONOSTACHYS

 27594 L2 <- substructure results for triazole-carbinols

 671 CLONOSTACHYS

L14 77 L2 AND CLONOSTACHYS

=> S L14 NOT CASFORM?/OS

 423391 CASFORM?/OS

L15 14 L14 NOT CASFORM?/OS

The remaining records between L14 and L15 would have the compounds and Clonostachys indexed, but not in the same formulation, or not in the examples

Impact of using CASFORMULTNS in agrochemical use case

- Without CASFORM we would retrieve:
 - CAplus: 77 records, of which 70 patent documents
 - WPINDEX: 17 records (all patent documents); 3 not found in CAplus
 - Total number of patents to review: 73
- With CASFORM we would retrieve:
 - CASFORM: 206 formulations from 9 patent documents
 - CAplus: 14 records not covered in CASFORM
 - WPINDEX: 3 records not found in CAplus or CASFORM
 - Total number of patents to review: 26
 - This includes 4 unique patent not found in CAplus/WPINDEX
- Time save is 64% with a higher quality result

Use case 3: Cosmetics

- Formulation comprising a natural product extract used as skin whitening agents in a cosmetic formulation.
 - Is it helpful to search generic registrations of plant extracts in Registry?
 - Moving answers to CASFORM
 - Searching for formulations that use plant extracts and describe skin whitening
 - Increase precision to require that the extract component has skin whitening function
- What are the more recently used extracts?

Registry has several product extract compounds

RN 8000-78-0 REGISTRY *

* Use of this CAS Registry Number alone as a search term in other STN files may result in incomplete search results. For additional information, enter HELP RN* at an online arrow prompt (=>).

ED Entered STN: 16 Nov 1984

CN Oils, garlic (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Garlic oil

OTHER NAMES:

CN Allium sativum bulb oil

CN Allium sativum oil

CN Garlic oils

CN Oleum bulbus allii

DEF **Extractives** and their physically modified derivatives. Allium sativum, Liliaceae.

MF Unspecified

CI COM, MAN, CTS

LC STN Files: ADISNEWS, BIOSIS, BIOTECHNO, CASFORMULTNS, CHEMCATS, CHEMLIST, CIN, DDFU, DRUGU, EMBASE, IPA, MSDS-OHS, RTECS*, TOXCENTER, USPATFULL, VETU

Other Sources: DSL**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

There are also extracts as tradename compounds

RN 207409-85-6 REGISTRY
ED Entered STN: 18 Jun 1998
CN Citrene (CA INDEX NAME)
ENTE A terpene **extracted** from citrus rinds
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, CASFORMULTNS, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

16 REFERENCES IN FILE CA (1907 TO DATE)

16 REFERENCES IN FILE CAPLUS (1907 TO DATE)

Start the Registry search for both compound types

```
=> S EXTRACTIVES/DEF
```

```
L1          4711 EXTRACTIVES/DEF
```

```
=> S L1 AND CASFORM?/LC
```

```
          2688649 CASFORM?/LC          <- compounds indexed in CASFORMULTNS
```

```
L2          312 L1 AND CASFORM?/LC
```

```
=> S EXTRACT?/ENTE NOT (PETROLEUM OR MINERAL)/ENTE
```

```
L3          2371 EXTRACT?/ENTE NOT (PETROLEUM OR MINERAL)/ENTE
```

```
=> S L3 AND CASFORM?/LC
```

```
          2688649 CASFORM?/LC
```

```
L4          543 L3 AND CASFORM?/LC
```

Start the Registry search for both compound types

```
=> FILE CASFORM
```

```
=> S L2 OR L4
```

```
    259837 L2          <- extractives in generic definitions
```

```
    7844 L4           <- extracts in tradenames
```

```
L5    266203 L2 OR L4
```

```
=> S EXTRACT?(L)CNM/FA <- general extracts not covered by CAS RN
```

```
L6    526231 EXTRACT?(L)CNM/FA
```

```
=> S L5 OR L6
```

```
L7    646171 L5 OR L6
```

```
=> S (BRIGHTEN? OR WHITEN? OR LIGHTEN? OR BLEACHING)(3A)SKIN
```

```
L8    27710 (BRIGHTEN? OR WHITEN? OR LIGHTEN? OR BLEACHING)(3A)SKIN
```

```
=> S L7 AND L8
```

```
L9    14319 L7 AND L8
```

AN 2019:14172 CASFORMULTNS
NDC 31645-196-01; 31645-196-02
ATTR DailyMed® is produced by the National Library of Medicine. DT Insert
FD Organic Wear Work it Marathonista Tinted Moisturizer: Sunscreen
GRPS G1-G40
GRPC 40
CMPC 40
TGTC 3
LCC Product insert
LCD Product insert

COMPONENT C27
CNM **Syzygium leuhmannii (riberry fruit) extract**
CFU inactive agents
COP Mandatory

...quinoa protein blend provides amino acids vitamin A,C and E to boost hydration, support skin elasticity, help defend against skin damage caused by environmental exposure and help **brighten skin** tone. super berry complex rich in antioxidants these super-berries strengthen and help maintain skins instant and long-term hydration.....

Ultimate precision where extracts are whitening agents

=> S L7(L)L8

L11 539 L7(L)L8

AN 2019:356466 CASFORMULTNS

TI Harpagophytum procumbens extract, its production method, and compositions containing same

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2019230233	A1	20191205	WO 2019-JP16339	20190416

LCD Example, Formulation Example 9, Table 3-1, 3-2

GROUP G1

GDS Additional ingredients

GOP Mandatory

COMPONENT C1

CNM **Harpagophytum procumbens extract**

CAM 0.5 wt %

CFU skin-lightening agents; wrinkle-preventing agents; anti-aging agents; active agent

COP Mandatory

Balancing recall and precision: explicit formulation target

=> S L9 AND SKIN/TGT,TGD (L) (BRIGHTEN? OR LIGHTEN? OR BLEACH? OR WHITEN?)/TGR
L13 3825 L9 AND SKIN/TGT,TGD (L) (BRIGHTEN? OR LIGHTEN? OR BLEACH? OR
WHITEN?)/TGR

=> S L13 NOT L11
L14 3661 L13 NOT L11

AN 2019:240394 CASFORMULTNS
TI Composition containing mogroside V for oxidation resistance,
anti-inflammatory effect and **skin whitening**
KR 2015019602

COMPONENT C10
RN **194043-92-0**
CNM shea butter
CAM 3.0 wt %

PRODUCT	PA1
PUP	skin-lightening cosmetics
PF	Desc: cosmetic ointments
DR	topical application
TGR	whitens
TGT	skin

What are the most commonly used extracts?

```
=> S L11(L)CNM/FA AND P/DT AND 2015-2020/PY
L22          354 L11(L)CNM/FA AND P/DT AND 2015-2020/PY
```

```
=> ANA HIT CNM 1-
L23          ANALYZE L22 1- CNM HIT :      150 TERMS
```

TERM #	# OCC	# DOC	% DOC	CNM
1	48	48	13.56	OLEA EUROPAEA EXTRACT
2	35	35	9.89	CHAMOMILE KSQ
3	24	24	6.78	GLUTATHIONE
4	20	20	5.65	LEMON PEEL EXTRACT
5	20	20	5.65	LICORICE EXTRACT
6	20	20	5.65	ORANGE PEEL EXTRACT
7	19	19	5.37	MULBERRY EXTRACT
8	18	18	5.08	BROMELAIN
9	12	12	3.39	CITRUS
10	12	12	3.39	PEONY

Linking with CNM/FA will ensure that all compound names are highlighted

Limited to the most recent patents

Impact of using CASFORMULTNS in cosmetics use case

- Without CASFORM we would retrieve:
 - CAplus: 2677 patent records
 - WPINDEX: 5034 patent records; 3335 not found in CAplus
 - Total number of patents to review: 6012
- With CASFORM we would retrieve:
 - CASFORM: 539 formulations from 150 patent documents
 - CAplus: 2012 records not covered in CASFORM
 - WPINDEX: 2257 records not found in CAplus or CASFORM
 - Total number of patents to review: 4419
 - This includes 99 unique patent not found in CAplus/WPINDEX
- Time save is 26% with a higher quality result

CAS FORMULATIONS provides high precision searching

- **CAS FORMULATIONS will save a lot of valuable time and effort in evaluating the relevant hits for formulation searches**
 - CASFORMULTNS/OS field in CPlus helps to exclude content that was already searched in more detail for top-up searches
- **CAS FORMULATIONS is only available on STNext**
- **First response from IP search professionals is very positive**
 - Finding unique answers not found in other searches
 - Quickly find highly relevant results to get first IP insight
 - Product Inserts add very useful information to patents and journals



For more information ...

CAS

help@cas.org

Support:

www.cas.org

FIZ Karlsruhe

helpdesk@fiz-karlsruhe.de

Support:

www.stn-international.de

Please contact me at: ppeters@acs-i.org



STNNext®

 **FIZ Karlsruhe**
Leibniz Institute for Information Infrastructure

 **CAS**[®]
A DIVISION OF THE
AMERICAN CHEMICAL SOCIETY

Pharma search strategy for CPlus and WPIIndex

FILE 'REGISTRY' ENTERED AT 14:39:03 ON 17 MAY 2020

L1 51263 S MG/ELS NOT (AYS OR TIS)/CI NOT 1/ELC.SUB

L2 922 S L1 AND CASFORM?/LC

L3 2627 S CANNABI?/BI,ENTE

L4 154 S L3 AND CASFORM?/LC

FILE 'HCAPLUS' ENTERED AT 14:52:47 ON 17 MAY 2020

L14 205 S (L1 OR MAGNESIUM) AND (L3 OR CANNABI?) AND ANALGESIC?

L15 190 S L14 AND P/DT

FILE 'WPINDEX' ENTERED AT 14:55:24 ON 17 MAY 2020

L16 226 S L14

Agrochem search strategy for CPlus and WIndex

FILE 'REGISTRY' ENTERED AT 15:38:25 ON 17 MAY 2020

L1 STRUCTURE UPLOADED

L2 72017 S L1 SSS FUL

L3 1506 S L2 AND CASFORM?/LC

FILE 'HCAPLUS' ENTERED AT 15:43:52 ON 17 MAY 2020

L9 77 S L2 AND CLONOSTACHYS

L10 14 S L9 NOT CASFORM?/OS

FILE 'WPINDEX' ENTERED AT 15:51:32 ON 17 MAY 2020

L15 3284 S L1 SSS FUL

L16 5517 S L15/DCR

L18 17 S L16 AND (CLONOSTACHYS? OR GLIOCLADIUM)

Cosmetic search strategy for CPlus and WPIIndex

FILE 'HCAPLUS' ENTERED AT 00:19:32 ON 18 MAY 2020

L12 24424 S L2 OR L4
L13 20467 S EXTRACT?(L)(BRIGHTEN? OR LIGHTEN? OR WHITEN? OR BLEACHING)
L14 112 S L12(L)(BRIGHTEN? OR LIGHTEN? OR WHITEN? OR BLEACHING)
L15 20511 S L13 OR L14
L16 9295 S L15 AND 62/CC,SX
L17 3779 S L16 AND SKIN-LIGHTENING COSMETICS/CT
L18 3539 S L17 AND P/DT
L21 62331 S A61K0008-97/IPC,CPC
L22 2677 S L18 AND L21
L23 2012 S L22 NOT CASFORM?/OS
L24 2677 S L17 AND L21

FILE 'WPINDEX' ENTERED AT 00:36:37 ON 18 MAY 2020

L28 11331 S EXTRACT?(L)(BRIGHTEN? OR LIGHTEN? OR WHITEN? OR BLEACHING)(L)SKIN
L29 6640 S L28 AND L21
L30 790321 S EXTRACT?/NOV
L31 5034 S L30 AND L29