COMMON NAMES AND LATIN SYNONYMS FOR HUMULUS LUPULUS  SEX FEMALE

BETIGUERA
BINE
HOBLON
HOMBRECILLO
HOP
HOP VINE
HOPFENS
HOPS
HOUBLLOW
LUPIIO
LUPULO
RAZAK
VIDARRIA
HUMULUS LUPULUS (CANNABACEAE) DRIED AERIAL PARTS ENGLAND
USED TO INDUCE SLEEP. STUFFED INTO Pillows.
PLANT * INHALATION * HUMAN ADULT * T09858

HUMULUS LUPULUS (CANNABACEAE) DRIED BUDS ITALY
USED FOR GASTRONOMIC PURPOSES.
BUDS * ORAL * HUMAN ADULT * T16715

HUMULUS LUPULUS (CANNABACEAE) ENTIRE PLANT CHINA
USED AS A SEDATIVE.
DECOCTION * ORAL * HUMAN ADULT * K29113
USED AS A MILD HYPNOTIC.
DECOCTION * ORAL * HUMAN ADULT * K29113

USED FOR TUBERCULOSIS.
DECOCTION * ORAL * HUMAN ADULT * K29113

USED FOR CANCER.
DECOCTION * ORAL * HUMAN ADULT * K29113

USED FOR EXTERNAL ULCERS.
DECOCTION * EXTERNAL * HUMAN ADULT * K29113

USED AS AN APHRODISIAC.
DECOCTION * ORAL * HUMAN ADULT * MALE * K29113

HUMULUS LUPULUS (CANNABACEAE) ENTIRE PLANT USA
USED AS A NERVINE
HOT H2O EXT * ORAL * HUMAN ADULT * T01253
ETHNOMEDICAL INFORMATION ON HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) ENTIRE PLANT USA
USED FOR DYSMENORRHEA
HOT H2O EXT * ORAL * HUMAN ADULT * FEMALE * T01253

HUMULUS LUPULUS (CANNABACEAE) FLOWERING TOPS ITALY
USED FOR FRAIL AND LYMPHATIC CHILDREN.
INFUSION * ORAL * HUMAN ADULT * T16136

HUMULUS LUPULUS (CANNABACEAE) FLOWERS USA
USED AS A SEDATIVE
HOT H2O EXT * ORAL * HUMAN ADULT * L00715

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT USA
USED AS A SEDATIVE
PLANT * SMOKING * HUMAN ADULT * K04641

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT EUROPE
USED TO PROMOTE SLEEP.
H2O EXT * ORAL * HUMAN ADULT * N12648

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT IRAN
USED AS AN ANTIPYRETIC.
INFUSION * ORAL * HUMAN ADULT * I00004
APPLIED IN JOINT PAIN.
INFUSION * EXTERNAL * HUMAN ADULT * I00004
USED AS A HYPNOTIC.
POWDER * ORAL * HUMAN ADULT * I00004
USED AS A SEDATIVE.
POWDER * ORAL * HUMAN ADULT * I00004
USED AS A HYPNOTIC.
INFUSION * ORAL * HUMAN ADULT * I00004
USED FOR ITS TONIC EFFECT.
INFUSION * ORAL * HUMAN ADULT * I00004
ETHNOMEDICAL INFORMATION ON HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT IRAN

USED IN MIGRAINE.
   INFUSION * ORAL * HUMAN ADULT * I00004

USED AS A BLOOD RECTIFIER.
   INFUSION * ORAL * HUMAN ADULT * I00004

USED IN ANEMIA.
   INFUSION * ORAL * HUMAN ADULT * I00004

USED IN ANEMIC YOUNG WOMEN.
   INFUSION * ORAL * HUMAN ADULT * FEMALE * I00004

USED AS A CIRCULATION STIMULANT.
   INFUSION * ORAL * HUMAN ADULT * I00004

USED AS AN ANTHELMINTIC.
   INFUSION * ORAL * HUMAN ADULT * I00004

USED AS A VERMIFUGE.
   INFUSION * ORAL * HUMAN ADULT * I00004

APPLIED ON COLD TUMORS.
   INFUSION * EXTERNAL * HUMAN ADULT * I00004

USED IN ABDOMINAL CRAMPS.
   INFUSION * ORAL * HUMAN ADULT * I00004
HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT IRAN

USED IN RACHITISM.
INFUSION * ORAL * HUMAN ADULT * I00004

USED IN DARTAR.
INFUSION * EXTERNAL * HUMAN ADULT * I00004

USED TO REDUCE LYMPHATIC NODE INFLAMMATION.
INFUSION * ORAL * HUMAN ADULT * I00004

USED IN INFLAMMATORY CONDITIONS.
INFUSION * ORAL * HUMAN ADULT * I00004

USED IN GOUT.
INFUSION * ORAL * HUMAN ADULT * I00004

APPLIED ON GANGRENOUS WOUNDS.
INFUSION * EXTERNAL * HUMAN ADULT * I00004

USED IN SCORBUTIC PATIENTS.
INFUSION * ORAL * HUMAN ADULT * I00004

USED IN DIARRHEA.
INFUSION * ORAL * HUMAN ADULT * I00004

USED AS A DIGESTANT.
INFUSION * ORAL * HUMAN ADULT * I00004

USED AS A DIURETIC.
INFUSION * ORAL * HUMAN ADULT * I00004

USED AS A DIAPHORETIC.
INFUSION * ORAL * HUMAN ADULT * I00004

USED IN EDEMA.
INFUSION * ORAL * HUMAN ADULT * I00004

USED IN JAUNDICE.
INFUSION * ORAL * HUMAN ADULT * I00004
ETHNOMEDICAL INFORMATION ON HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT IRAN

USED IN DERMATITIS.
   INFUSION * EXTERNAL * HUMAN ADULT * I00004

USED IN DYSMENORRHEA.
   INFUSION * ORAL * HUMAN ADULT * FEMALE * I00004

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT ROUMANIA

USED FOR LEUCORRHEA IN ROUMANIAN FOLKMEDICINE.
   HOT H2O EXT * VAGINAL * HUMAN ADULT * FEMALE * T01325

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT USA-WA

USED AS AN ABORTIFACIENT.
   HOT H2O EXT * ORAL * HUMAN(PREGNANT) * T06138

HUMULUS LUPULUS (CANNABACEAE) GLAND(LEAF) USA

USED FOR INSOMNIA
   FLUIDEXTRACT * ORAL * HUMAN ADULT * A05642

USED AS AN ANAPHRODISIAL
   FLUIDEXTRACT * ORAL * HUMAN ADULT * MALE * A05642

HUMULUS LUPULUS (CANNABACEAE) DRIED INFLORESCENCE

USED AS A SEDATIVE.
   HOT H2O EXT * ORAL * HUMAN ADULT * T14395

USED AS AN ANTIAPHRODISIAC.
   T14395

USED FOR GASTROINTESTINAL TROUBLES.
   T14395
ETHNOMEDICAL INFORMATION ON HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED INFLORESCENCE ITALY

USED AS A SEDATIVE.
   INFUSION * ORAL * HUMAN ADULT * T16715

USED FOR INFLAMMATIONS.
   HOT H2O EXT * ROUTE NOT GIVEN * HUMAN ADULT * M17807

HUMULUS LUPULUS (CANNABACEAE) DRIED INFLORESCENCE USA

USED AS A TONIC.
   HOT H2O EXT * ORAL * HUMAN ADULT * W03968

USED AS A FEBRIFUGE. STEEP A TEASPOON OF FLOWERS IN A CUP OF BOILING WATER. COOL, DRINK 1 CUP A DAY.
   HOT H2O EXT * ORAL * HUMAN ADULT * W03968

USED AS PILLOWS STUFFED WITH DRIED FLOWERS TO INDUCE SLEEP.
   FLOWERS * INHALATION * HUMAN ADULT * W03968

USED FOR SEDATIVE OR HYPNOTIC EFFECT. INDUCES SLEEP, CALMS, RELIEVES PAIN, BUT NOT ALWAYS RELIABLE. STEEP A TEASPOON OF FLOWERS IN A CUP OF BOILING WATER. COOL, DRINK 1 CUP.
   HOT H2O EXT * ORAL * HUMAN ADULT * W03968

USED AS AN ANTHELMINIC. STEEP A TEASPOON OF FLOWERS IN A CUP OF WATER. COOL, DRINK 1 CUP A DAY.
   HOT H2O EXT * ORAL * HUMAN ADULT * W03968

USED IN AN OINTMENT FOR SKIN IRRITATION AND ITCHING. BOIL 2 PARTS DATURA STRAMONIUM LEAVES AND 1 PART HOPS IN LARD.
   HOT H2O EXT * EXTERNAL * HUMAN ADULT * W03968 * EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.

USED AS AN EMOLLIENT FOR SKIN IRRITATION AND ITCHING, AND FOR BRUISES.
   HOT H2O EXT * EXTERNAL * HUMAN ADULT * W03968

USED AS AN ANTILITHIC. STEEP A TEASPOON OF FLOWERS IN A CUP OF BOILING WATER. COOL, DRINK 1 CUP A DAY.
   HOT H2O EXT * ORAL * HUMAN ADULT * W03968

HUMULUS LUPULUS (CANNABACEAE) LEAF

USED TO TREAT DIABETES.
   TYPE EXT NOT STATED * ORAL * HUMAN ADULT * J13964
ETHNOMEDICAL INFORMATION ON HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED LEAF EUROPE

USED FOR DIABETES MELLITUS.
DECOCTION * ORAL * HUMAN ADULT * M27518

HUMULUS LUPULUS (CANNABACEAE) FRESH LEAF IRAN

WHOLE LEAF IS PLACED IN BOILING WATER FOR 10 MINUTES AND THEN PLACED ON THE JOINTS TO REDUCE PAIN.
LEAF * EXTERNAL * HUMAN ADULT * I00004
USED AS A BLOOD RECTIFIER.
DECOCTION * ORAL * HUMAN ADULT * I00004

WHOLE LEAF IN PLACED IN BOILING WATER FOR 10 MINUTES AND THEN PLACED ON GANGRENOUS WOUNDS FOR HEALING.
LEAF * EXTERNAL * HUMAN ADULT * I00004

USED AS A DIURETIC.
DECOCTION * ORAL * HUMAN ADULT * I00004

HUMULUS LUPULUS (CANNABACEAE) PART NOT SPECIFIED USA

USED AS AN ABORTIVE
HOT H2O EXT * ORAL * HUMAN(PREGNANT) * A04603
USED AS AN ABORTIVE
TYPE EXT NOT STATED * ROUTE NOT GIVEN * HUMAN(PREGNANT) * A04603

DECOCT WITH CEDAR SPROUTS AND BEARBERRY AS AN ABORTIFACIENT
HOT H2O EXT * ORAL * HUMAN(PREGNANT) * A05549 * EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.

HUMULUS LUPULUS (CANNABACEAE) DRIED ROOT IRAN

USED AS A BLOOD RECTIFIER.
DECOCTION * ORAL * HUMAN ADULT * I00004
ETHNOMEDICAL INFORMATION ON HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED ROOT IRAN

USED AS A DIURETIC.
DECOCTION * ORAL * HUMAN ADULT * I00004

HUMULUS LUPULUS (CANNABACEAE) DRIED SHOOTS IRAN

YOUNG SHOOTS ARE DECOCTED IN BOILING WATER AND PLACED ON PAINFUL LESIONS.
SHOOTS * EXTERNAL * HUMAN ADULT * I00004

YOUNG SHOOTS ARE DECOCTED IN BOILING WATER AND PLACED ON GANGRENOUS WOUNDS FOR HEALING.
SHOOTS * EXTERNAL * HUMAN ADULT * I00004

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS GERMANY

USED FOR INSOMNIA.
H2O EXT * ORAL * HUMAN ADULT * K23856 * THESE DATA ARE FROM A REVIEW ARTICLE.

HUMULUS LUPULUS SEX FEMALE (CANNABACEAE) INFLORESCENCE ARGENTINA

USED AS A SEXUAL STIMULANT: INFUSE 20 GMS OF PLANT MATERIAL IN 1 L OF HOT WATER AND DRINK.
HOT H2O EXT * ORAL * HUMAN ADULT * MALE * W01322

USED AS A DIURETIC: INFUSE 20 GMS OF PLANT MATERIAL IN 1 L OF HOT WATER AND DRINK.
HOT H2O EXT * ORAL * HUMAN ADULT * W01322
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED AERIAL PARTS SOUTH KOREA

TYROSINASE INHIBITION * MEOH(80%) * CONC USED 100.0 MCG/ML * INACTIVE * J16249 *

CYCLOOXYGENASE INHIBITION * MEOH EXT * CONC USED 100.0 MCG/ML * EQUIVOCAL * L24543 *

HUMULUS LUPULUS (CANNABACEAE) DRIED BRACTS

TOXIC EFFECT(GENERAL) * CHROMATOGRAPHIC FRACTION * RAT * INTRAGASTRIC * DOSE 5.0 GM/KG * INACTIVE * L30254 *
ACUTE DOSING STUDY

TOXIC EFFECT(GENERAL) * CHROMATOGRAPHIC FRACTION * RAT * INTRAGASTRIC * DOSE 2.0 GM/KG * INACTIVE * L30254 *
90 DAY DOSING STUDY

SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS (CANNABACEAE) DRIED BRACTS JAPAN(CULT)

ANTIADHESION EFFECT * ETOH(30%)EXT * AGAR PLATE * IC50 2.7 MCG/ML * ACTIVE * STREPTOCOCCUS MUTANS * L03035 *
HIGH MOLECULAR WEIGHT POLYPHENOL FRACTION TESTED.

SEE ARTICLE FOR OTHER TEST RESULTS.

ANTIADHESION EFFECT * ETOH(30%)EXT * AGAR PLATE * IC50 5.7 MCG/ML * ACTIVE * STREPTOCOCCUS SOBRINUS *
L03035 * HIGH MOLECULAR WEIGHT POLYPHENOL FRACTION TESTED.

SEE ARTICLE FOR OTHER TEST RESULTS.

GLUCOSYLTRANSFERASE INHIBITION * ETOH(30%)EXT * AGAR PLATE * CONC USED 0.1 MG/ML * ACTIVE *
STREPTOCOCCUS MUTANS * L03035 * HIGH MOLECULAR WEIGHT POLYPHENOL FRACTION TESTED.

GLUCOSYLTRANSFERASE INHIBITION * ETOH(30%)EXT * CONC USED 0.1 MG/ML * ACTIVE *
STREPTOCOCCUS SOBRINUS * L03035 * POLYPHENOL FRACTION TESTED.

HUMULUS LUPULUS (CANNABACEAE) ENTIRE PLANT

ANTIMYCOBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED NOT STATED * ACTIVE *
MYCOBACTERIUM TUBERCULOSIS * A15179 * ACTIVITY IS LOST IN THE PRESENCE OF WHOLE BLOOD.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) ENTIRE PLANT

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED NOT STATED * ACTIVE * STAPHYLOCOCCUS AUREUS * A15179 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED NOT STATED * ACTIVE * ESCHERICHIA COLI * A15179 *

ANTIMYCOBACTERIAL ACTIVITY * HOT H2O EXT * AGAR PLATE * CONC USED NOT STATED * ACTIVE * MYCOBACTERIUM TUBERCULOSIS * A15179 * ACTIVITY LOST IN PRESENCE OF WHOLE BLOOD.

ANTIBACTERIAL ACTIVITY * H2O EXT * AGAR PLATE * CONC USED NOT STATED * ACTIVE * STAPHYLOCOCCUS AUREUS * A15179 *

ANTIBACTERIAL ACTIVITY * H2O EXT * AGAR PLATE * CONC USED NOT STATED * INACTIVE * ESCHERICHIA COLI * A15179 *

HUMULUS LUPULUS (CANNABACEAE) DRIED ENTIRE PLANT

RADICAL SCAVENGING EFFECT * ETOH-H2O(1:1) EXT * CONC USED 5.0 MCG/ML * WEAK ACTIVITY * K21650 * VS.SUPEROXIDE ANION. ESTIMATED BY THE NEOTETRAZOLIUM METHOD.

HUMULUS LUPULUS (CANNABACEAE) DRIED ENTIRE PLANT GERMANY

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * BACILLUS SUBTILIS * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * STAPHYLOCOCCUS AUREUS * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * BACILLUS GLOBIFER * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * BACILLUS GLOBIFER (ERYTHROMYCIN-RESISTANT) * T06571 *
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED ENTIRE PLANT GERMANY

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * BACILLUS MYCOIDES * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * BACILLUS GLOBIFER (TETRACYCLINE RESISTANT) * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * ESCHERICHIA COLI * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * ESCHERICHIA COLI (STREPTOMYCIN RESISTANT) * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * Serratia marcescens * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * Pseudomonas aeruginosa * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * Proteus vulgaris * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * Proteus morganii * T06571 *

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * Aerobacter aerogenes * T06571 *

ANTIMYOcobacterial activity * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * Mycobacterium smegmatis * T06571 *

ANTIMYOcobacterial activity * ETOH(95%)EXT * AGAR PLATE * CONC USED VAR INACTIVE * Mycobacterium phlei * T06571 *
GLUTATHIONE-S-TRANSFERASE INDUCTION * ESSENTIAL OIL * MOUSE * INTRAGASTRIC * DOSE 30.0 MG/ANIMAL * ACTIVE * INTESTINE(SMALL) * M30046 * DOSE GIVEN EVERY 2 DAYS FOR A TOTAL OF 3 DOSES.

HUMULUS LUPULUS (CANNABACEAE) ESSENTIAL OIL

ANTIVIRAL ACTIVITY * ESSENTIAL OIL * CELL CULTURE * CONC USED NOT STATED * INACTIVE * SEVERAL VIRUSES * L25902 *

GLUTATHIONE-S-TRANSFERASE INDUCTION * ESSENTIAL OIL * MOUSE * INTRAGASTRIC * DOSE 30.0 MG/ANIMAL * ACTIVE * INTESTINE(SMALL) * M30046 * DOSE GIVEN EVERY 2 DAYS FOR A TOTAL OF 3 DOSES.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) ESSENTIAL OIL

GLUTATHIONE-S-TRANSFERASE INDUCTION * ESSENTIAL OIL * MOUSE * INTRAGASTRIC * DOSE 30.0 MG/ANIMAL * ACTIVE * LIVER * M30046 * DOSE GIVEN EVERY 2 DAYS FOR A TOTAL OF 3 DOSES.

GLUTATHIONE-S-TRANSFERASE INDUCTION * ESSENTIAL OIL * MOUSE * INTRAGASTRIC * DOSE 30.0 MG/ANIMAL * INACTIVE * STOMACH * M30046 * DOSE GIVEN EVERY 2 DAYS FOR A TOTAL OF 3 DOSES.

HUMULUS LUPULUS (CANNABACEAE) ESSENTIAL OIL GERMANY

CNS DEPRESSANT ACTIVITY * ESSENTIAL OIL * PIGEON * NASOGASTRIC * DOSE NOT STATED * WEAK ACTIVITY * A15488 * DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

HUMULUS LUPULUS (CANNABACEAE) DRIED FLOWERS

TRANQUILIZING EFFECT * TYPE EXT NOT STATED * HUMAN ADULT * ORAL * DOSE 375.0 MG/PERSON * ACTIVE * M24875 * 27 SUBJECTS WITH SLEEP DIFFICULTIES TOOK PREPARATIONS OF HUMULUS LUPULUS, MELISSA OFFICINALIS AND EITHER HIGH OR TRACK LEVELS OF VALERIAN. THE HIGH DOSE PREPARATION IS SAID TO BE HIGH IN SESQUITERPENES. SUBJECTS TOOK EACH DOSAGE LEVEL ON A SINGLE NIGHT IN A RANDOMIZED DOUBLE-BLIND CROSSOVER TRAIL. 44% REPORTED PERFECT SLEEP AND 89% REPORTED IMPROVED SLEEP WITH THE HIGH VALERIAN DOSAGE. NIGHTMARES AND OTHER SIDE EFFECTS WERE NOT SEEN.

DOSE EXPRESSED AS DRY WEIGHT OF PLANT.

CYTOTOXIC ACTIVITY * H2O EXT * CELL CULTURE * CONC USED 10.0% INACTIVE * HELA CELLS * T09507 *

ANTIVIRAL ACTIVITY * H2O EXT * CELL CULTURE * CONC USED 10.0% INACTIVE * VIRUS-HERPES TYPE 2 * T09507 *

ANTIVIRAL ACTIVITY * H2O EXT * CELL CULTURE * CONC USED 10.0% INACTIVE * VIRUS-INFLUENZA A2(MANHEIM 57) * T09507 *

ANTIVIRAL ACTIVITY * H2O EXT * CELL CULTURE * CONC USED 10.0% INACTIVE * VIRUS-VACCINIA * T09507 *

ANTIVIRAL ACTIVITY * H2O EXT * CELL CULTURE * CONC USED 10.0% INACTIVE * VIRUS-POLIOVIRUS II * T09507 *
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) FRUIT

ESTROGENIC EFFECT * ETOH(95%)EXT * MOUSE(INFANT) * FEMALE * SC * DOSE NOT STATED * ACTIVE * A04725 *
EXTRACT "A" WAS FOUND TO CONTAIN 10,000 UNITS OF ACTIVITY PER GRAM EXTRACT "B" WAS FOUND TO CONTAIN
12,500 UNITS OF ACTIVITY PER GRAM ALLEN-DOISY ASSAY WAS USED

ESTROGENIC EFFECT * TYPE EXT NOT STATED * MOUSE(OVARIECTOMIZED) * FEMALE * SC * DOSE VAR ACTIVE * T06788 *
ACTIVITY = 1-300 MCG 17-BETA-OESTRADIOL/GM
THESE DATA ARE FROM A REVIEW ARTICLE.

HUMULUS LUPULUS (CANNABACEAE) FRUIT CZECHOSLOVAKIA

ESTROGENIC EFFECT * ETOH(95%)EXT * RAT(OVARIECTOMIZED) * FEMALE * SC * DOSE NOT STATED * ACTIVE * A04667 *
ESTROGENIC ACTIVITY = 1050-2000 MCG/KG PLANT

ESTROGENIC EFFECT * ETOH(95%)EXT * MOUSE(INFANT) * FEMALE * DOSE NOT STATED * ACTIVE * A04667 * ESTROGENIC
ACTIVITY = 1050-2000 MCG/KG PLANT

ESTROGENIC EFFECT * ETOH(95%)EXT * MOUSE(INFANT) * FEMALE * SC * DOSE NOT STATED * ACTIVE * A04790 *

HUMULUS LUPULUS (CANNABACEAE) FRUIT GERMANY

ESTROGENIC EFFECT * H2O EXT * MOUSE(INFANT) * FEMALE * SC * DOSE NOT STATED * ACTIVE * A04876 *

SLEEP EFFECTS * HYDRO-ALCOHOLIC EXT * HUMAN ADULT * GIVEN TO BOTH SEXES * ORAL * DOSE VAR ACTIVE * L04287 *
A MULTICENTER CLINICAL TRIAL INVOLVING 225 PATIENTS ASSESSED THE EFFECT OF A VALERIAN, HOPS & BALM
COMBINATION ON SLEEPING DISORDERS DUE TO NERVOUS UNREST. AFTER 2 WEEKS OF TREATMENT, 80% OF SUBJECTS
REPORTED SIGNIFICANT SUBJECTIVE AND OBJECTIVE IMPROVEMENTS IN THE ABILITY TO FALL ALSEEP, SLEEPING TIME
AND A DECREASE IN ANXIETY.
EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.

TOXIC EFFECT(GENERAL) * HYDRO-ALCOHOLIC EXT * HUMAN ADULT * GIVEN TO BOTH SEXES * ORAL * DOSE VAR
INACTIVE * L04287 *
EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) FRUIT JAPAN

FEEDING DETERRENT (INSECT) * BENZENE EXT * DOSE 5.0% ACTIVE * SPODOPTERA LITURA, FEMALE * L02465 *

HUMULUS LUPULUS (CANNABACEAE) FRUIT SPAIN

ESTROGENIC EFFECT * TYPE EXT NOT STATED * MOUSE * FEMALE * SC * DOSE NOT STATED * INACTIVE * A05984 *

SEVERAL VARIETIES OF HOPS TESTED

HUMULUS LUPULUS (CANNABACEAE) FRUIT USA

ESTROGENIC EFFECT * SAPONIFIABLE FRACTION * MOUSE (INFANT) * FEMALE * SC * DOSE 51.0 MG/KG * INACTIVE * A04877 *

ESTROGENIC EFFECT * ETHER EXT * MOUSE (INFANT) * FEMALE * SC * DOSE 30.0 MG/ANIMAL * INACTIVE * A04877 *

HUMULUS LUPULUS (CANNABACEAE) FRUIT USSR

ESTROGENIC EFFECT * TYPE EXT NOT STATED * MOUSE (INFANT) * FEMALE * SC * DOSE NOT STATED * WEAK ACTIVITY * A00381 *

ESTROGENIC EFFECT * ETOH(95%)EXT * MOUSE (INFANT) * FEMALE * SC * DOSE NOT STATED * ACTIVE * W01124 *

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT

ESTROGENIC EFFECT * TYPE EXT NOT STATED * MOUSE (INFANT) * FEMALE * SC * DOSE NOT STATED * ACTIVE * W01848 *

THESE DATA ARE FROM A REVIEW ARTICLE.

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT EUROPE

CNS DEPRESSANT ACTIVITY * ESSENTIAL OIL * MOUSE * IM * DOSE NOT STATED * ACTIVE * N12648 *

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT JAPAN

ANTIEDEMA ACTIVITY * MEOH EXT * MOUSE * EXTERNAL * DOSE 2.0 MG/EAR * ACTIVE * K11173 * INHIBITION RATIO (IR) WAS 90.

VS.12-O-TETRADECANYLPHORBOL-13-ACETATE (TPA)-INDUCED EAR INFLAMMATION.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT JAPAN

ANTIHYPERGLYCEMIC(ANTIDIABETIC) ACTIVITY * FRUIT * HUMAN ADULT * ORAL * DOSE NOT STATED * ACTIVE * M22017 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
   BIOLOGICAL ACTIVITY REPORTED HAS BEEN PATENTED.

ANTIHYPERGLYCEMIC(ANTIDIABETIC) ACTIVITY * TYPE EXT NOT STATED * HUMAN ADULT * ORAL * DOSE NOT STATED *
   ACTIVE * M22017 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
   BIOLOGICAL ACTIVITY REPORTED HAS BEEN PATENTED.

SUNSCREEN EFFECT * DECOCTION * HUMAN ADULT * EXTERNAL * CONC USED 0.5% ACTIVE * M31188 *
   EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
   BIOLOGICAL ACTIVITY REPORTED HAS BEEN PATENTED.

SKIN PIGMENTATION EFFECT * DECOCTION * HUMAN ADULT * EXTERNAL * CONC USED 0.5% ACTIVE * M31188 *
   MIXTURE CONTAINING EXTRACT LIGHTENED SKIN.
   EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
   BIOLOGICAL ACTIVITY REPORTED HAS BEEN PATENTED.

LUTEAL SUPPRESSANT EFFECT * CHROMATOGRAPHIC FRACTION * RAT * FEMALE * ROUTE NOT GIVEN * DOSE 5.0 MG/ANIMAL *
   ACTIVE * T09034 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

ANTI-PREGNANT MARE SERUM GONADOTROPIN ACTIVITY * CHROMATOGRAPHIC FRACTION * RAT * FEMALE * ROUTE NOT GIVEN *
   DOSE 5.0 MG/ANIMAL * ACTIVE * T09034 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

HUMULUS LUPULUS (CANNABACEAE) DRIED FRUIT ROUMANIA

ANTITRICHOMONAL ACTIVITY * TYPE EXT NOT STATED * BROTH CULTURE * CONC USED NOT STATED * ACTIVE *
   TRICHOMONAS VAGINALIS * T01325 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

ANTHELMIINTIC ACTIVITY * TYPE EXT NOT STATED * CONC USED NOT STATED * INACTIVE * ASCARIS SUILLA * T01325 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

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**BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS**

**HUMULUS LUPULUS (CANNABACEAE) DRIED INFLORESCENCE**

*ANTI-PREGNANT MARE SERUM GONADOTROPIN ACTIVITY* *H2O EXT* *RAT* *FEMALE* *SC* *DOSE 20-50 MG/ANIMAL* *ACTIVE* *T07805*

*ANTIYEAST ACTIVITY* *ETOH-H2O(1:1) EXT* *AGAR PLATE* *CONC USED 333.0 MG/ML* *INACTIVE* *SACCHAROMYCES PASTORIANUS* *T16238*

  DOSE EXPRESSED AS DRY WEIGHT OF PLANT.

*ANTIYEAST ACTIVITY* *ETOH-H2O(1:1) EXT* *AGAR PLATE* *CONC USED 333.0 MG/ML* *INACTIVE* *CANDIDA ALBICANS* *T16238*

  DOSE EXPRESSED AS DRY WEIGHT OF PLANT.

*ANTIFUNGAL ACTIVITY* *ETOH-H2O(1:1) EXT* *AGAR PLATE* *CONC USED 333.0 MG/ML* *ACTIVE* *RHIZOPUS NIGRICANS* *T16238*

  DOSE EXPRESSED AS DRY WEIGHT OF PLANT.

*ANTIFUNGAL ACTIVITY* *ETOH-H2O(1:1) EXT* *AGAR PLATE* *CONC USED 333.0 MG/ML* *INACTIVE* *ASPERGILLUS FUMIGATUS* *T16238*

  DOSE EXPRESSED AS DRY WEIGHT OF PLANT.

*ANTIFUNGAL ACTIVITY* *ETOH-H2O(1:1) EXT* *AGAR PLATE* *CONC USED 333.0 MG/ML* *INACTIVE* *ASPERGILLUS NIGER* *T16238*

  DOSE EXPRESSED AS DRY WEIGHT OF PLANT.

*ANTIFUNGAL ACTIVITY* *ETOH-H2O(1:1) EXT* *AGAR PLATE* *CONC USED 333.0 MG/ML* *INACTIVE* *PENICILLIUM DIGITATUM* *T16238*

  DOSE EXPRESSED AS DRY WEIGHT OF PLANT.

*ANTIFUNGAL ACTIVITY* *ETOH-H2O(1:1) EXT* *AGAR PLATE* *CONC USED 333.0 MG/ML* *INACTIVE* *BOTRYTIS CINEREA* *T16238*

  DOSE EXPRESSED AS DRY WEIGHT OF PLANT.

*ANTIFUNGAL ACTIVITY* *ETOH-H2O(1:1) EXT* *AGAR PLATE* *CONC USED 333.0 MG/ML* *INACTIVE* *TRICHERYTON MENTAGROPHYTES* *T16238*

  DOSE EXPRESSED AS DRY WEIGHT OF PLANT.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED INFLORESCENCE ITALY

ANTIBACTERIAL ACTIVITY * ETOH(80%)EXT * AGAR PLATE * CONC USED 250.0 MCG/ML * INACTIVE * BACILLUS SUBTILIS * L04038 *

ANTIBACTERIAL ACTIVITY * ETOH(80%)EXT * AGAR PLATE * CONC USED 250.0 MCG/ML * INACTIVE * STAPHYLOCOCCUS AUREUS * L04038 *

ANTIBACTERIAL ACTIVITY * ETOH(80%)EXT * AGAR PLATE * CONC USED 250.0 MCG/ML * INACTIVE * STREPTOCOCCUS HEMOLYTICUS * L04038 *

ANTIBACTERIAL ACTIVITY * ETOH(80%)EXT * AGAR PLATE * CONC USED 250.0 MCG/ML * INACTIVE * ESCHERICHIA COLI * L04038 *

ANTIBACTERIAL ACTIVITY * ETOH(80%)EXT * AGAR PLATE * CONC USED 250.0 MCG/ML * INACTIVE * SALMONELLA TYPHI * L04038 *

ANTIBACTERIAL ACTIVITY * ETOH(80%)EXT * AGAR PLATE * CONC USED 250.0 MCG/ML * INACTIVE * KLEBSIELLA PNEUMONIAE * L04038 *

ANTIBACTERIAL ACTIVITY * ETOH(80%)EXT * AGAR PLATE * CONC USED 250.0 MCG/ML * INACTIVE * PSEUDOMONAS AERUGINOSA * L04038 *

ANTIBACTERIAL ACTIVITY * ETOH(80%)EXT * AGAR PLATE * CONC USED 250.0 MCG/ML * INACTIVE * PROTEUS MIRABILIS * L04038 *

ANTIINFLAMMATORY ACTIVITY * ETOH(80%)EXT * RAT * MALE * GASTRIC INTUBATION * DOSE 100.0 MG/KG * INACTIVE * M17807 * 3% INHIBITION OF EDEMA.

VS.CARRAGEENAN-INDUCED PEDAL EDEMA.

HUMULUS LUPULUS (CANNABACEAE) DRIED LEAF EUROPE

ANTIHYPERGLYCEMIC(ANTIDIABETIC) ACTIVITY * PLANT * MOUSE * MALE * IN RATION * CONC USED 6.25 % OF DIET/INACTIVE * M27518 * DOSING FOR 28 DAYS.

VS.STREPTOZOTOCIN-INDUCED HYPERGLYCEMIA.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED LEAF EUROPE

HYPOGLYCEMIC ACTIVITY * PLANT * MOUSE * MALE * IN RATION * CONC USED 6.25 % OF DIET/INACTIVE * M27518 * DOSING FOR 28 DAYS.

HUMULUS LUPULUS (CANNABACEAE) DRIED NECK

ALLERGENIC ACTIVITY * PLANT * HUMAN ADULT * EXTERNAL * FULL STRENGTH APPLICATION NOT STATED * ACTIVE * E02351 * A CASE OF A TWENTY NINE YEAR MAN WHO PREVIOUSLY HAD 3 EPISODES OF URTICARIA-ANGIOEDEMA AFTER PEANUTS, CHESTNUT AND BANANA INTAKE DEVELOPED URTICARIA OF THE HANDS.

SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS (CANNABACEAE) PART NOT SPECIFIED

ANTIMYCOBACTERIAL ACTIVITY * ETOH(95%)EXT * BROTH CULTURE * CONC USED NOT STATED * ACTIVE * MYCOBACTERIUM TUBERCULOSIS H37RVT MC 102 * M27150 * THE EXTRACT WAS USED IN A DILUTION OF 1:80.

HUMULUS LUPULUS (CANNABACEAE) PART NOT SPECIFIED CHINA

SUPER OXIDE SCAVENGING ACTIVITY INCREASE * H2O EXT * CONC USED 0.005 %/ACTIVE * L18427 * VS.NBT.

RADICAL SCAVENGING EFFECT * H2O EXT * CONC USED 0.025 %/ACTIVE * L18427 * VS.DPPH RADICALS.

HUMULUS LUPULUS (CANNABACEAE) PART NOT SPECIFIED USSR

ANTIBACTERIAL ACTIVITY * ETOH(95%)EXT * AGAR PLATE * CONC USED NOT STATED * ACTIVE * STAPHYLOCOCCUS AUREUS * W00311 *
DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

HUMULUS LUPULUS (CANNABACEAE) STROBILUS

CNS DEPRESSANT ACTIVITY * TYPE EXT NOT STATED * HUMAN ADULT * GIVEN TO BOTH SEXES * ORAL * DOSE VARIABLE NOT STATED * ACTIVE * E02310 * A REVIEW OF DRUGS USED TO TREAT INSOMNIA IN THE ELDERLY.

SEE ARTICLE FOR OTHER TEST RESULTS.

 THESE DATA ARE FROM A REVIEW ARTICLE.

ANTIPYRETIC ACTIVITY * MEOH-H2O(1:1) EXT * MOUSE * MALE * INTRAGASTRIC * DOSE 500.0 MG/KG * ACTIVE * L30189 * EFFECT WAS ANTAGONIZED BY MELATONIN.

SEE ARTICLE FOR OTHER TEST RESULTS.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) STROBILUS CANADA

   ANTIBACTERIAL ACTIVITY * TYPE EXT NOT STATED * AGAR PLATE * CONC USED NOT STATED * ACTIVE * BACTERIAL SPECIES NOT STATED * K25596 * ORAL CARE COMPNS. HOP ACIDS OR THEIR SALTS ARE EFFECTIVE IN INHIBITING GRAM POS. BACTERIA WHICH CAN CAUSE PLAQUE OR PERIODONTAL DISEASE. A REPRESENTATIVE COMPN. IS A TOOTHPASTE CONTG. TETRAHYDROISOHUMULONE.
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
   BIOLOGICAL ACTIVITY REPORTED HAS BEEN PATENTED.

HUMULUS LUPULUS (CANNABACEAE) STROBILUS JAPAN

   ELASTASE INHIBITION * ETOH-H2O(1:1) EXT * CONC USED NOT STATED * ACTIVE * L17332 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
   BIOLOGICAL ACTIVITY REPORTED HAS BEEN PATENTED.

HUMULUS LUPULUS (CANNABACEAE) STROBILUS POLAND

   ANTIOXIDANT ACTIVITY * MEOH EXT * CONC USED NOT STATED * ACTIVE * L18878 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
   ANTIOXIDANT ACTIVITY * H2O EXT * CONC USED NOT STATED * ACTIVE * L18878 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

HUMULUS LUPULUS (CANNABACEAE) COMMERCIAL SAMPLE OF STROBILUS

   MISCELLANEOUS EFFECTS * HYDRO-ALCOHOLIC EXT * HUMAN ADULT * GIVEN TO BOTH SEXES * ORAL * DOSE VAR ACTIVE * E01719 * THE AIM OF THE STUDY WAS TO DEMONSTRATE COMPETITION BETWEEN CAFFEINE AND A FIXED VALERIAN/HOP EXTRACT COMBINATION (ZE91019) BY THE CENTRAL ADENOSINE MECHANISM. EEG WAS USED TO DESCRIBE THE ACTION OF CAFFEINE ON THE CENTRAL NERVOUS SYSTEM AFTER ORAL ADMINISTRATION (200 MG) IN HEALTHY VOLUNTEERS. IN ADDITION TO CAFFEINE, THE VOLUNTEERS (16 IN EACH GROUP) RECEIVED EITHER PLACEBO OR VERUM (2 AND 6 TABLETS CONTAINING THE VALERIAN/HOP EXTRACT). THE EEG RESPONSES WERE RECORDED EVERY 30 MIN THEREAFTER. THE VERUM MEDICATION WAS CAPABLE OF REDUCING (2 TABLETS) OR INHIBITING (6 TABLETS) THE AROUSAL INDUCED BY CAFFEINE. THIS PHARMACODYNAMIC ACTION WAS OBSERVED 60 MINUTES AFTER ORAL ADMINISTRATION, INDICATING NOT ONLY COMPETITION BETWEEN THE ANTAGONIST CAFFEINE AND THE PARTIAL AGONIST, I.E. THE VALERIAN/HOP EXTRACT BUT ALSO BIO-AVAILABILITY OF THE COMPOUNDS RESPONSIBLE FOR THE AGONISTIC ACTION. IN CONCLUSION, THE VALERIAN/HOP EXTRACT ACTS VIA A CENTRAL ADENOSINE MECHANISM WHICH IS POSSIBLY THE REASON FOR ITS SLEEP-INDUCING AND MAINTAINING ACTIVITY.
   EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) COMMERCIAL SAMPLE OF STROBILUS

RECEPTOR BINDING STIMULANT * ETOH(40%)EXT * CONC USED VAR ACTIVE * L26696 * THE BINDING OF VALERIAN, HOPS AND THEIR FIXED COMBINATION EXTRACT(ZE91019) ON 14 SUBTYPES OF FIVE CLASSES OF CENTRAL RECEPTORS WERE STUDIED.

EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.

SEE ARTICLE FOR OTHER TEST RESULTS.

ANTIPROLIFERATION ACTIVITY * TYPE EXT NOT STATED * CELL CULTURE * CONC USED VAR %/WEAK ACTIVITY * CA-T47D * L29430 * VS. NEGATIVE CONTROL. CELLS WERE INCUBATED WITH EXTRACT FOR 48 HOURS, RESULTS EXPRESSED AS % INHIBITION OF GROWTH.

SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS (CANNABACEAE) COMMERCIAL SAMPLE OF STROBILUS SWITZERLAND

HYPOTHERMIC ACTIVITY * TYPE EXT NOT STATED * MOUSE * IP * DOSE 250.0 MG/KG * ACTIVE * K27659 *

ANTICONVULSANT ACTIVITY * TYPE EXT NOT STATED * MOUSE * IP * DOSE 500.0 MG/KG * ACTIVE * K27659 *

VS.PENTYLENETETRAZOLE-INDUCED CONVULSIONS.

BARBITURATE POTENTIATION * TYPE EXT NOT STATED * MOUSE * IP * DOSE 250.0 MG/KG * ACTIVE * K27659 *

SPONTANEOUS ACTIVITY REDUCTION * TYPE EXT NOT STATED * MOUSE * IP * DOSE 100.0 MG/KG * ACTIVE * K27659 *

ANALGESIC ACTIVITY * TYPE EXT NOT STATED * MOUSE * IP * DOSE 100.0 MG/KG * ACTIVE * K27659 *

VS.HOT PLATE METHOD.

HUMULUS LUPULUS (CANNABACEAE) COMMERCIAL SAMPLE OF STROBILUS USA

NITRIC OXIDE SYNTHESIS INHIBITION * ETOAC EXT * CONC USED NOT STATED * ACTIVE * H32723 *

SEE ARTICLE FOR OTHER TEST RESULTS.
MISCELLANEOUS EFFECTS * TYPE EXT NOT STATED * HUMAN ADULT * GIVEN TO BOTH SEXES * ORAL * DOSE 120.0 MG/DAY * ACTIVE * E00686 * AN INVESTIGATION TO OBJECTIFY THE PHARMACODYNAMIC EFFECTS OF DIFFERENT DOSAGES OF A COMMERCIAL PLANT EXTRACT MIXTURE OF VALERIAN AND HOPS BY MEANS OF THE QUANTITATIVE TOPOGRAPHICAL EEG (QEEG) IN HEALTHY YOUNG ADULTS IN COMPARISON TO PLACEBO. TWO DIFFERENT DOSAGES WERE APPLIED IN TWO SINGLE-BLIND, CROSS-OVER DESIGNED OBSERVATION TRIALS IN 12 HEALTHY VOLUNTEERS (1ST DOSAGE: 500 MG VALERIAN AND 120 MG HOPS, VERSUS PLACEBO, FIRST CLINICAL TRIAL; 2ND DOSAGE: 1500 MG VALERIAN AND 360 MG HOPS, VERSUS PLACEBO, SECOND CLINICAL TRIAL). QEEG WAS RECORDED BIPOLARLY FROM 17 SURFACE ELECTRODES ACCORDING TO THE 10:20 SYSTEM AND ANALYSED USING THE FAST FOURIER TRANSFORMATION PRIOR TO, 1, 2 AND 4 HOURS AFTER DRUG INTAKE IN THE RECORDING CONDITIONS EYES OPEN, EYES CLOSED AND UNDER MENTAL DEMAND. THE EEG-SPECTRA WERE CUT INTO SIX FREQUENCY BANDS. BOTH RESTING CONDITIONS (EYES OPEN AND EYES CLOSED) WERE ANALYSED TOGETHER. AFTER APPLICATION OF THE LOW DOSAGE QEEG POWER CHANGES REMAINED MORE OR LESS WITHIN PLACEBO RANGE FOLLOWING THE NORMAL CIRCADIAN RHYTHMICS, EXCEPT FOR A TENDENTIOUS REDUCTION OF ALPHA- AND BETA-POWER 4 H AFTER DRUG INTAKE. THE HIGH DOSAGE LED TO POWER INCREASES IN DELTA, DECREASES IN ALPHA AND A WEAK DECREASE IN BETA-POWER. UNDER MENTAL PERFORMANCE ONLY WEAK DIFFERENCES TO PLACEBO WERE SEEN WHICH ARE NOT DISCUSSED HERE. IN THE CPT (COMPLETION OF COMPLICATED ADDITIONS AND SUBTRACTIONS) THE CONCENTRATION AND PERFORMANCE CAPABILITY WERE HARDLY INFLUENCED. HOWEVER, A MINIMAL INCREASE OF MEAN ANSWER TIME AND MEAN OK TIME (TIME FOR CORRECT ANSWERS) WAS OBSERVED 4 HOURS AFTER INTAKE OF 2 TABLETS AND 1 HOUR AFTER 6 TABLETS OF VALERIAN AND HOPS MIXTURE WITH MORE PRONOUNCED CHANGES AFTER THE LOW DOSAGE RATHER THAN THE HIGH ONE.

EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS

**MISCELLANEOUS EFFECTS** * TYPE EXT NOT STATED * HUMAN ADULT * GIVEN TO BOTH SEXES * ORAL * DOSE 360.0 MG/DAY * ACTIVE * E00686 * AN INVESTIGATION TO OBJECTIFY THE PHARMACODYNAMIC EFFECTS OF DIFFERENT DOSAGES OF A COMMERCIALLY AVAILABLE PLANT EXTRACT MIXTURE OF VALERIAN AND HOPS BY MEANS OF THE QUANTITATIVE TOPOGRAPHICAL EEG (QEEG) IN HEALTHY YOUNG ADULTS IN COMPARISON TO PLACEBO. TWO DIFFERENT DOSAGES WERE APPLIED IN TWO SINGLE-BLIND, CROSS-OVER DESIGNED OBSERVATION TRIALS IN 12 HEALTHY VOLUNTEERS (1ST DOSAGE: 500 MG VALERIAN AND 120 MG HOPS, VERSUS PLACEBO, FIRST CLINICAL TRIAL; 2ND DOSAGE: 1500 MG VALERIAN AND 360 MG HOPS, VERSUS PLACEBO, SECOND CLINICAL TRIAL). QEEG WAS RECORDED BIPOLARLY FROM 17 SURFACE ELECTRODES ACCORDING TO THE 10:20 SYSTEM AND ANALYSSED USING THE FAST FOURIER TRANSFORMATION PRIOR TO, 1, 2 AND 4 HOURS AFTER DRUG INTAKE. THE EEG-SPECTRA WERE CUT INTO SIX FREQUENCY BANDS. BOTH RESTING CONDITIONS (EYES OPEN AND EYES CLOSED) WERE ANALYSED TOGETHER. AFTER APPLICATION OF THE LOW DOSAGE QEEG POWER CHANGES REMAINED MORE OR LESS WITHIN PLACEBO RANGE FOLLOWING THE NORMAL CIRCADIAN RHYTHMICS, EXCEPT FOR A TENDENTIOUS REDUCTION OF ALPHA- AND BETA-POWER 4 H AFTER DRUG INTAKE. THE HIGH DOSAGE LED TO POWER INCREASES IN DELTA, DECREASES IN ALPHA AND A WEAK DECREASE IN BETA-POWER. UNDER MENTAL PERFORMANCE ONLY WEAK DIFFERENCES TO PLACEBO WERE SEEN WHICH ARE NOT DISCUSSED HERE. IN THE CPT (COMPLETION OF COMPLICATED ADDITIONS AND SUBTRACTIONS) THE CONCENTRATION AND PERFORMANCE CAPABILITY WERE HARDLY INFLUENCED. HOWEVER, A MINIMAL INCREASE OF MEAN ANSWER TIME AND MEAN OK TIME (TIME FOR CORRECT ANSWERS) WAS OBSERVED 4 HOURS AFTER INTAKE OF 2 TABLETS AND 1 HOUR AFTER 6 TABLETS OF VALERIAN AND HOPS MIXTURE WITH MORE PRONOUNCED CHANGES AFTER THE LOW DOSAGE RATHER THAN THE HIGH ONE.

**EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.**

CNS DEPRESSANT ACTIVITY * TYPE EXT NOT STATED * HUMAN ADULT * GIVEN TO BOTH SEXES * ORAL * DOSE 120.0 MG/DAY * ACTIVE * E00687 * A PILOT STUDY WITH A FIXED EXTRACT COMBINATION ZE 91019 OF VALERIAN AND HOP WAS CONDUCTED IN 30 PATIENTS SUFFERING FROM MILD-MODERATE, NON-ORGANIC INSOMNIA. THE DIAGNOSIS WAS CONFIRMED BY POLYSOMNOGRAPHIC STANDARD EXAMINATIONS. THE PATIENTS WERE TREATED WITH 2 TABLETS IN THE EVENING. EACH TABLET CONTAINS 250 MG VALERIAN EXTRACT AND 60 MG HOP EXTRACT. A POLYSOMNOGRAPHIC RE-EXAMINATION AFTER 2 WEEKS OF TREATMENT REVEALED DECLINES IN THE SLEEP LATENCY AND THE WAKE TIME. AS A CONSEQUENCE THE SLEEP EFFICIENCY INCREASED. SLEEP STAGE 1 (S1) WAS REDUCED AND THE SLOW WAVE SLEEP INCREASED. IN ADDITION, THE PATIENTS JUDGED THEIR BEING REFRESHED IN THE MORNING BY ASSIGNING A RATING OF 1 TO 6. THEY REPORTED AN IMPROVEMENT AFTER 2 WEEKS OF TREATMENT. NO ADVERSE EVENTS WERE OBSERVED. BASED ON THESE FINDINGS A PIVOTAL STUDY CAN BE DESIGNED.

**EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.**

SLEEP EFFECTS * TYPE EXT NOT STATED * HUMAN ADULT * GIVEN TO BOTH SEXES * ORAL * DOSE 30.0 MG/PERSON * ACTIVE * E01185 * IN 484 PATIENTS (MEAN AGE 49.5 YEARS; 63% FEMALE). ASSESSMENT OF SLEEP QUALITY AND SLEEP LATENCY REVEALED RELEVANT IMPROVEMENTS.

**EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.**

DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS

MENOPAUSE SYMPTOMS RELIEF * TYPE EXT NOT STATED * HUMAN ADULT * FEMALE * ORAL * DOSE 100.0 MCG/DAY * ACTIVE * E01918 * A PROSPECTIVE, RANDOMIZED, DOUBLE-BLIND, PLACEBO CONTROLLED STUDY OVER 12 WEEKS WITH 67 MENOPAUSAL WOMEN, WHO WERE ADMINISTERED A HOP EXTRACT STANDARDIZED ON 8PN (100 OR 250 MCG). THE RESPONSES WERE DETERMINED BY MEANS OF A MODIFIED KUPPERMAN INDEX (KI) AND A PATIENTS' QUESTIONNAIRE. ALL GROUPS, INCLUDING PLACEBO, SHOWED A SIGNIFICANT REDUCTION OF THE KI, BOTH AFTER 6 AND 12 WEEKS. THE HOP EXTRACT AT 100 MCG 8PN WAS SIGNIFICANTLY SUPERIOR TO PLACEBO AFTER 6 WEEKS (P=0.023) BUT NOT AFTER 12 WEEKS (P=0.086). NO DOSE-RESPONSE RELATIONSHIP COULD BE ESTABLISHED, AS THE HIGHER DOSE (250 MCG) WAS LESS ACTIVE THAN THE LOWER DOSE, BOTH AFTER 6 AND 12 WEEKS. STILL, A TRENDS FOR A MORE RAPID DECREASE OF KI WAS NOTICED FOR BOTH ACTIVE GROUPS AS COMPARED WITH PLACEBO. IN PARTICULAR, THE DECREASE IN HOT FLUSH SCORE (ISOLATED FROM THE KI) WAS FOUND SIGNIFICANT FOR BOTH TREATMENT GROUPS AFTER 6 WEEKS (P<0.01) WITH RESPECT TO PLACEBO. RESULTS OF THE PATIENTS' QUESTIONNAIRE WERE CONSISTENT WITH THOSE OF THE KI, WITH THE MOST PRONOUNCED EFFECTS BEING OBSERVED FOR THE 100 MCG TREATMENT.

SEE ARTICLE FOR OTHER TEST RESULTS.

CNS DEPRESSANT ACTIVITY * HYDRO-ALCOHOLIC EXT * HUMAN ADULT * GIVEN TO BOTH SEXES * ORAL * DOSE 84.0 MG/DAY * ACTIVE * E01919 * A MULTICENTER, RANDOMIZED, PLACEBO-CONTROLLED,PARALLEL-GROUP STUDY CONDUCTED IN NINE SLEEP DISORDERS CENTERS THROUGHOUT THE U.S.A. A TOTAL OF 184 ADULTS WITH MILD INSOMNIA WERE INCLUDED IN THE STUDY. THE FINDINGS SHOWED A MODEST HYPNOTIC EFFECT FOR A VALERIAN-HOPS COMBINATION AND DIPHENHYDRAMINE RELATIVE TO PLACEBO.

EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.

SEE ARTICLE FOR OTHER TEST RESULTS.

CNS DEPRESSANT ACTIVITY * TYPE EXT NOT STATED * HUMAN ADULT * ORAL * DOSE 200.0 MG/DAY * ACTIVE * E02124 * THE COMBINATION ACTS THROUGH A CENTRAL ADENOSINE MECHANISM.

EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.

SEE ARTICLE FOR OTHER TEST RESULTS.

MENOPAUSE SYMPTOMS RELIEF * TYPE EXT NOT STATED * HUMAN ADULT * FEMALE * ORAL * DOSE VARIABLE NOT STATED * INACTIVE * E02259 * A REVIEW (121 REFERENCES) OF ALL COMPLEMENTARY AND ALTERNATIVE THERAPIES FOR CLIMACTERIC SYMPTOMS. CONCLUSION: INSUFFICIENT CLINICAL DATA TO SUPPORT THE USE.

SEE ARTICLE FOR OTHER TEST RESULTS.

THESE DATA ARE FROM A REVIEW ARTICLE.

ESTROGENIC EFFECT * TINCTURE * HUMAN ADULT * FEMALE * VAGINAL * CONC USED 1.0% ACTIVE * E02272 * STUDY IN 10 POST-MENOPAUSAL WOMEN. APPLICATION WAS DAILY FOR 30 DAYS. VAGINAL DRYNESS WAS IMPROVED.

EFFECTS DESCRIBED ARE FROM A MULTI-COMPONENT RX.

SEE ARTICLE FOR OTHER TEST RESULTS.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS

MENOPAUSE SYMPTOMS RELIEF * TYPE EXT NOT STATED * HUMAN ADULT * FEMALE * ORAL * DOSE NOT GIVEN NOT STATED * . * E02285 * A REVIEW (16 REF.) OF THE EFFECT OF HOPS IN ALLEVIATING HOT FLASHES.
   THESE DATA ARE FROM A REVIEW ARTICLE.

NITRIC OXIDE RELEASE INHIBITION * ETOAC SOLUBLE FRACTION * CELL CULTURE * CONC USED 25.0 MCG/ML * ACTIVE * MACROPHAGE CELL LINE RAW 264.7 * H31111 *

DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

NITRIC OXIDE RELEASE INHIBITION * BUTANOL EXT * CELL CULTURE * CONC USED 50.0 MCG/ML * ACTIVE * H31111 *

DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

NITRIC OXIDE RELEASE INHIBITION * ALKALOID FREE H2O EXTRACT * CONC USED 100.0 MCG/ML * EQUIVOCAL * H31111 *

DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

ANALGESIC ACTIVITY * TYPE EXT NOT STATED * MOUSE * IP * DOSE 250.0 MG/KG * ACTIVE * J15371 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

HYPOTHERMIC ACTIVITY * TYPE EXT NOT STATED * MOUSE * IP * DOSE 500.0 MG/KG * ACTIVE * J15371 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

ANTICONVULSANT ACTIVITY * TYPE EXT NOT STATED * MOUSE * IP * DOSE 250.0 MG/KG * ACTIVE * J15371 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

TRANQUILIZING EFFECT * TYPE EXT NOT STATED * MOUSE * IP * DOSE 250.0 MG/KG * ACTIVE * J15371 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

BARBITURATE POTENTIATION * TYPE EXT NOT STATED * MOUSE * IP * DOSE 250.0 MG/KG * ACTIVE * J15371 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

SPONTANEOUS ACTIVITY REDUCTION * TYPE EXT NOT STATED * MOUSE * IP * DOSE 250.0 MG/KG * ACTIVE * J15371 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

ESTROGENIC EFFECT * TYPE EXT NOT STATED * RAT(OVARIECTOMIZED) * FEMALE * IN RATION * DOSE NOT STATED *
   ACTIVE * SERUM * J16511 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

RECEPTOR BINDING(ESTROGEN) DECREASED * ETOH(95%)EXT * RAT * FEMALE * CONC USED NOT STATED * ACTIVE *
   UTERUS(UNSPEC.COND) * J16511 *
   DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBUS

TOXIC EFFECT (GENERAL) * TYPE EXT NOT STATED * HUMAN ADULT * ORAL * DOSE NOT STATED * ACTIVE * K20205 * TAKEN IN COMBINATION WITH "SLEEP QIK".

MENOPAUSE SYMPTOMS RELIEF * TYPE EXT NOT STATED * HUMAN ADULT * FEMALE * DOSE NOT STATED * INACTIVE * L03971 * NO SCIENTIFIC EVIDENCE TO SUPPORT USE FOR THE TREATMENT OF MENOPAUSAL SYMPTOMS.

THESE DATA ARE FROM A REVIEW ARTICLE.

ALKALINE PHOSPHATASE STIMULATION * POLYPHENOLIC FRACTION * CELL CULTURE * CONC USED 1.0 MCG/ML * ACTIVE * L04448 * VS.HUMAN ENDOMETRIAL CELLS, ISHIKAWA VAR I.

ESTROGENIC EFFECT * POLYPHENOLIC FRACTION * CELL CULTURE * CONC USED 0.2 MCG/ML * ACTIVE * L14681 * IN ISHIKAWA CELLS.

ANTIOXIDANT ACTIVITY * MEOH EXT * CONC USED 1.0 MGM %/LITER * ACTIVE * L15248 * VS.2,2'-AZOBIS(2-AMIDINOPROPANE) DIHYDROCHLORIDE-INDUCED OXIDATION OF AN AQUEOUS-DISPERSION OF LINOLEIC ACID.

SEE ARTICLE FOR OTHER TEST RESULTS.

ADENOSINE A1 RECEPTOR AGONIST ACTIVITY * MEOH EXT * CONC USED NOT STATED * INACTIVE * L22410 * VS.CHO-HAI CELLS.

ANTIVIRAL ACTIVITY * CO2 EXTRACT * CELL CULTURE * IC50 8.6 MCG/ML * ACTIVE * VIRUS-CYTOMEGALOVIRUS * L25902 *

ANTIVIRAL ACTIVITY * CO2 EXTRACT * CELL CULTURE * IC50 29.0 MCG/ML * WEAK ACTIVITY * VIRUS-HEPATITIS B * L25902 *

ANTIVIRAL ACTIVITY * CO2 EXTRACT * CELL CULTURE * CONC USED NOT STATED * INACTIVE * SEVERAL VIRUSES * L25902 *

ESTROGENIC EFFECT * MEOH EXT * CONC USED VAR ACTIVE * L26318 *

SEE ARTICLE FOR OTHER TEST RESULTS.

GASTRIC SECRETORY STIMULATION * TYPE EXT NOT STATED * RAT * MALE * INTRAGASTRIC * DOSE 2.0 ML/KG * ACTIVE * L30186 * EFFECT BLOCKED BY ATROPINE IN RAT PYLORUS-LIGATED MODEL.

SEE ARTICLE FOR OTHER TEST RESULTS.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS

ANTIINFLAMMATORY ACTIVITY * CO2 EXTRACT * MOUSE * MALE * INTRAGASTRIC * DOSE 1.25 MG/KG * INACTIVE * L30190 *
VS. ZYMOSAN SWELLING.

SEE ARTICLE FOR OTHER TEST RESULTS.

CYCLOOXYGENASE 1 INHIBITION * CO2 EXTRACT * CONC USED 30.0 MCG/ML * INACTIVE * L30190 *

SEE ARTICLE FOR OTHER TEST RESULTS.

CYCLOOXYGENASE 2 INHIBITION * CO2 EXTRACT * CONC USED 25.0 MCG/ML * ACTIVE * L30190 *

SEE ARTICLE FOR OTHER TEST RESULTS.

ADENOSINE RECEPTOR ANTAGONIST * CELL CULTURE * VNS ACTIVE * L30251 * IN RAT CORTICAL NEURONS

SEE ARTICLE FOR OTHER TEST RESULTS.

ANTIALLERGENIC ACTIVITY * LYO PHILIZED EXTRACT * MOUSE * FEMALE * IN RATION * DOSE 25.0 % OF DIET/ACTIVE *
L30256 * SEVEN DAY DOSING STUDY. VS COMPOUND 48/80 STIMULATED VASCULAR PERMEABILITY. EVANS BLUE
LEAKAGE IN SKIN WAS MEASURED.

SEE ARTICLE FOR OTHER TEST RESULTS.

ANTIALLERGENIC ACTIVITY * LYO PHILIZED EXTRACT * MOUSE * FEMALE * IN RATION * DOSE 500.0 MG/KG * ACTIVE *
L30256 * VS. INHIBITION OF HISTAMINE RELEASE IN OVA-SENSITIED ANIMALS

SEE ARTICLE FOR OTHER TEST RESULTS.

ANTIOSTEOPOROSIS ACTIVITY * POWDER * RAT * FEMALE * IN RATION * DOSE 100 GM/KG * INACTIVE * L30342 * EFFECT OF
EXERCISE AND/OR HOPS DIET ON VARIOUS PARAMETERS, INCLUDING BONE MINERAL DENSITY, UTERINE RELATIVE
WEIGHT, CALCIUM (CA) INTAKE, FECAL CA, URINARY CA EXCRETION, NET CA ABSORPTION, PLASMA CA.

SEE ARTICLE FOR OTHER TEST RESULTS.

EPSTEIN-BARR VIRUS EARLY ANTIGEN ACTIVATION INHIBITION * ETOH(95%)EXT * CELL CULTURE * CONC USED 100.0
MCG/ML * ACTIVE * CELLS-RAJI * L32057 *

VS. 12-O-TETRADECAN OYLPHORBOL-13-ACETATE (TPA)-INDUCED EARLY ANTIGEN ACTIVATION.

SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS BELGIUM

ANTIOXIDANT ACTIVITY * CO2 EXTRACT * CONC USED NOT STATED * ACTIVE * L20065 * INHIBITED LINOLEIC ACID
OXIDATION.

DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS FINLAND

CALCIUM ION UPTAKE INHIBITION * PHENOLIC FRACTION * CELL CULTURE * CONC USED 20.0 MCG/ML * ACTIVE * CELLS-RAT-PITUITARY * L21468 *

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS GERMANY

CNS DEPRESSANT ACTIVITY * TYPE EXT NOT STATED * PIGEON * ROUTE NOT GIVEN * DOSE VAR INACTIVE * A15488 *
FRACTION TESTED WAS FREE FROM HOP ACIDS.
DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.
ASTRINGENT EFFECT * TYPE EXT NOT STATED * HUMAN ADULT * ROUTE NOT GIVEN * DOSE NOT STATED * ACTIVE *
K23856 *
THESE DATA ARE FROM A REVIEW ARTICLE.
ANTIBACTERIAL ACTIVITY * TYPE EXT NOT STATED * HUMAN ADULT * ROUTE NOT GIVEN * DOSE NOT STATED * ACTIVE *
K23856 * USED AS ANTISEPTIC.
THESE DATA ARE FROM A REVIEW ARTICLE.
TRANQUILIZING EFFECT * TYPE EXT NOT STATED * HUMAN ADULT * ROUTE NOT GIVEN * DOSE NOT STATED * ACTIVE *
K23856 *
THESE DATA ARE FROM A REVIEW ARTICLE.
GABA RECEPTOR BLOCKING EFFECT * TYPE EXT NOT STATED * CONC USED 2.0 MCG/ML * ACTIVE * K23856 * A AND B
RECEPTORS ASSAYED.

GLUTAMATE RECEPTOR BLOCKER * TYPE EXT NOT STATED * CONC USED 2.0 MCG/ML * ACTIVE * K23856 * QUISQUALATE
RECEPTOR ASSAYED.

GLUTAMATE RECEPTOR BLOCKER * TYPE EXT NOT STATED * CONC USED 2.0 MCG/ML * ACTIVE * K23856 * KAINATE
RECEPTOR ASSAYED.

CHOLECYSTOKININ RECEPTOR BINDING EFFECT * TYPE EXT NOT STATED * CONC USED 2.0 MCG/ML * ACTIVE * K23856 *
A AND B RECEP'TORS ASSAYED.

GLUTAMATE RECEPTOR BLOCKER * TYPE EXT NOT STATED * CONC USED 2.0 MCG/ML * ACTIVE * K23856 * NMBA
RECEPTOR ASSAYED.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBLUS GERMANY

RECEPTOR BINDING (GLYCINE) ACTIVITY * TYPE EXT NOT STATED * CONC USED 2.0 MCG/ML * ACTIVE * K23856 *

RECEPTOR BINDING (CHLORIDE) ACTIVITY * TYPE EXT NOT STATED * CONC USED 2.0 MCG/ML * ACTIVE * K23856 *

CNS DEPressANT ACTIVITY * ETOH(95%) EXT * MOUSE * INTRAGASTRIC * DOSE 100.0 MG/KG * ACTIVE * L29089 *

SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBLUS JAPAN

ANTIALLERGENIC ACTIVITY * H2O EXT * HUMAN ADULT * ORAL * CNS * E01976 *

DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

BIOLOGICAL ACTIVITY REPORTED HAS BEEN PATENTED.

RADICAL SCAVENGING EFFECT * MEOH EXT * CONC USED NOT STATED * ACTIVE * K22625 *

LH-SYNTHESIS INHIBITION * H2O EXT * RAT * FEMALE * SC * DOSE 5.0 MG/ANIMAL * ACTIVE * L20811 *

SEE ARTICLE FOR OTHER TEST RESULTS.

THYMIDINE KINASE INHIBITION * H2O EXT * RAT * FEMALE * SC * DOSE 5.0 MG/ANIMAL * ACTIVE * L20811 *

SEE ARTICLE FOR OTHER TEST RESULTS.

ANTIGONADOTROPIN EFFECT (UNSPECIFIED) * H2O EXT * RAT * FEMALE * SC * DOSE 5.0 MG/ANIMAL * ACTIVE * L20811 *

SEE ARTICLE FOR OTHER TEST RESULTS.

OVULATION INHIBITION EFFECT * H2O EXT * RAT * FEMALE * SC * DOSE 5.0 MG/ANIMAL * ACTIVE * L20811 *

SEE ARTICLE FOR OTHER TEST RESULTS.

LH-RELEASE INHIBITION * H2O EXT * CELL CULTURE * CONC USED VAR INACTIVE * L20811 *

SEE ARTICLE FOR OTHER TEST RESULTS.

ANTIALLERGENIC ACTIVITY * H2O EXT * CELL CULTURE * CONC USED 100.0 MG/ML * ACTIVE * L29088 * VS. HISTAMINE RELEASE FROM RAT PERITONEAL MAST CELLS INDUCED BY COMPOUND 48/80.

SEE ARTICLE FOR OTHER TEST RESULTS.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS JAPAN

ANTIALLERGENIC ACTIVITY * H2O EXT * DOSE 100.0 MG/KG * ACTIVE * L29088 * INHIBITED NASAL RUBBING AND SNEEZING.

SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS POLAND

ALLERGENIC ACTIVITY * PLANT * HUMAN ADULT * FEMALE * EXTERNAL * CONCENTRATION NOT GIVEN NOT STATED * ACTIVE * E02278 * A CASE OF OCCUPATIONAL AIRBORNE AND HAND DERMATITIS WITH NON-OCCUPATIONAL RELAPSES.

SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS SLOVENIA

ANTIMUTAGENIC ACTIVITY * DIETHYL ETHER * AGAR PLATE * CONCENTRATION NOT GIVEN NOT STATED * ACTIVE * SALMONELLA TYPHIMURIUM TA98 * L30636 *

SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS USA

ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 40.0 MG/LITER * ACTIVE * RHIZOPUS NIGRICANS * A15628 *

ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 500.0 MG/LITER * WEAK ACTIVITY * PYTHIUM SPECIES * A15628 *

ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 150.0 MG/LITER * WEAK ACTIVITY * RHIZOCTONIA SOLANI * A15628 *

ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 80.0 MG/LITER * ACTIVE * A15628 * VS.SCLEROTIUM BATATICOLA.

ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 1600 MG/LITER * EQUIVOCAL * ASPERGILLUS NIGER * A15628 *

ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 200.0 MG/LITER * WEAK ACTIVITY * ASPERGILLUS ORYZAE * A15628 *

ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 600.0 MG/LITER * WEAK ACTIVITY * PHYTOPHTHORA CITROPHthora * A15628 *

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS

SEE ARTICLE FOR OTHER TEST RESULTS.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS USA

- ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 300.0 MG/LITER * WEAK ACTIVITY * FUSARIUM LYCOPERSICI * A15628 *

- ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 250.0 MG/LITER * WEAK ACTIVITY * PENICILLIUM DIGITATUM * A15628 *

- ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 200.0 MG/LITER * WEAK ACTIVITY * BOTRYTIS CINERE * A15628 *

- ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 900.0 MG/LITER * EQUIVOCAL * ALTERNARIA CITRI * A15628 *

- ANTIFUNGAL ACTIVITY * MEOH EXT * AGAR PLATE * IC50 40.0 MG/LITER * ACTIVE * SCLEROTINIA FRUITICOLA * A15628 *

- ESTROGEN RECEPTOR(ALPHA) BINDING EFFECT * MEOH EXT * IC50 30.0 MCG/ML * ACTIVE * L14613 *

- ESTROGEN RECEPTOR(BETA) BINDING EFFECT * MEOH EXT * IC50 27.0 MCG/ML * ACTIVE * L14613 *

- ALKALINE PHOSPHATASE STIMULATION * MEOH EXT * CELL CULTURE * IC50 13.1 MCG/ML * ACTIVE * L14613 * IN ISHIKAWA CELLS.

- PROTEIN EXPRESSION STIMULATION * MEOH EXT * CELL CULTURE * CONC USED 20.0 MCG/ML * ACTIVE * L14613 * VS.PROGESTERONE RECEPTOR MRNA IN ISHIKAWA CELLS.

- PROTEIN EXPRESSION STIMULATION * MEOH EXT * CELL CULTURE * CONC USED 20.0 MCG/ML * ACTIVE * L14613 * VS.PRESENELIN-2 EXPRESSION IN S-30 CELLS.

- CYTOTOXIC ACTIVITY * MEOH EXT * CELL CULTURE * IC50 2.5 MCG/ML * ACTIVE * L14613 * VS.ISHIKAWA CELLS.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS USA

CYTOTOXIC ACTIVITY * MEOH EXT * CELL CULTURE * IC50 >20.0 MCG/ML * INACTIVE * L14613 * VS. S-30 CELLS.

ESTROGEN RECEPTOR BINDING EFFECT * ETOH-H2O(50%)EXT * CONC USED VAR ACTIVE * L20688 *

PROGESTERONE RECEPTOR BINDING ACTIVITY * ETOH-H2O(50%)EXT * CONC USED VAR INACTIVE * L20688 *

CELL GROWTH ENHANCEMENT EFFECT * ETOH-H2O(50%)EXT * CELL CULTURE * CONC USED VAR EQUIVOCAL * L20688 * IN THE ER(+) T47D CELLS.

ANTIPROLIFERATION ACTIVITY * ETOH-H2O(50%)EXT * CELL CULTURE * CONC USED VAR INACTIVE * L20688 * IN THE ER(-) MDA468 BREAST CANCER.

ANTIOXIDANT ACTIVITY * CHCL3 EXT * CONC USED 200.0 MCG/ML * ACTIVE * L29296 * VS. DPPH ASSAY

SEE ARTICLE FOR OTHER TEST RESULTS.

QUINONE REDUCTASE INHIBITION * CHCL3 EXT * CELL CULTURE * CONC USED 3.2 MICROMOLS/ACTIVE * L29296 *

SEE ARTICLE FOR OTHER TEST RESULTS.

CYTOTOXIC ACTIVITY * CHCL3 EXT * CELL CULTURE * IC50 >20.0 MCG/ML * INACTIVE * L29296 * VS. HEP-G-2 ARE-C-8 CELLS

SEE ARTICLE FOR OTHER TEST RESULTS.

ANTIOXIDANT ACTIVITY * CONC USED 200.0 MICROMOLS/WEAK ACTIVITY * L29296 * VS. DPPH ASSAY

SEE ARTICLE FOR OTHER TEST RESULTS.

ANTIOXIDANT ACTIVITY * CHROMATOGRAPHIC FRACTION * CONC USED 200.0 MICROMOLS/ACTIVE * L30193 * VS. DPPH ASSAY

SEE ARTICLE FOR OTHER TEST RESULTS.

CYTOTOXIC ACTIVITY * CHROMATOGRAPHIC FRACTION * CELL CULTURE * LD50 >20.0 MICROMOLS/INACTIVE * HEPATOMA-HEPA-1C1C7 * L30193 *

SEE ARTICLE FOR OTHER TEST RESULTS.
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE) DRIED STROBILUS USA

QUINONE REDUCTASE INDUCTION * CHROMATOGRAPHIC FRACTION * CELL CULTURE * CONC USED 3.2 MICROMOLS/ACTIVE * HEPATOMA-HEPA-1C1C7 * L30193 * CONCENTRATION REQUIRED TO DOUBLE QR INDUCTION
SEE ARTICLE FOR OTHER TEST RESULTS.

QUINONE REDUCTASE INDUCTION * MEOH EXT * CELL CULTURE * CONC USED <20.0 MCG/ML * EQUIVOCAL * HEPATOMA-HEPA-1C1C7 * L30218 * METHANOLIC EXTRACT OF SPENT HOP PELLETS. ASSAY USED TO DETERMINE THE CONCENTRATION REQUIRED TO DOUBLE QUINONE REDUCTASE ACTIVITY.
SEE ARTICLE FOR OTHER TEST RESULTS.

QUINONE REDUCTASE INDUCTION * CHROMATOGRAPHIC FRACTION * CELL CULTURE * CONC USED 3.5 MCG/ML * HEPATOMA-HEPA-1C1C7 * L30218 * CHLOROFORM FRACTION OF METHANOLIC EXTRACT OF SPENT HOP PELLETS. ASSAY USED TO DETERMINE THE CONCENTRATION REQUIRED TO DOUBLE QUINONE REDUCTASE ACTIVITY.
SEE ARTICLE FOR OTHER TEST RESULTS.

CARCINOGENESIS INHIBITION * MEOH EXT * NOT STATED * EQUIVOCAL * L30218 * A METHANOLIC EXTRACT OF SPENT HOP PELLETS WAS EVALUATED USING AN ONLINE LC/MS SCREENING ASSAY BASED ON THE MASS SPECTROMETRIC IDENTIFICATION OF COMPOUNDS THAT ALKYLATE THE CYTOPLASMIC ACTIN-BINDING KEAP1 PROTEIN, LEADING TO THE UPREGULATION OF ANTIOXIDANT RESPONSE ELEMENT-MEDIATED INDUCTION OF PHASE II DETOXIFYING AND ANTIOXIDATIVE STRESS ENZYME NRF2
SEE ARTICLE FOR OTHER TEST RESULTS.

CARCINOGENESIS INHIBITION * CHROMATOGRAPHIC FRACTION * NOT STATED * ACTIVE * L30218 * A CHLOROFORM PARTITION OF A METHANOLIC EXTRACT OF SPENT HOP PELLETS WAS EVALUATED USING AN ONLINE LC/MS SCREENING ASSAY BASED ON THE MASS SPECTROMETRIC IDENTIFICATION OF COMPOUNDS THAT ALKYLATE THE CYTOPLASMIC ACTIN-BINDING KEAP1 PROTEIN, LEADING TO THE UPREGULATION OF ANTIOXIDANT RESPONSE ELEMENT-MEDIATED INDUCTION OF PHASE II DETOXIFYING AND ANTIOXIDATIVE STRESS ENZYME NRF2
SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS (CANNABACEAE) FRESH STROBILUS JAPAN

ANTIOXIDANT ACTIVITY * MEOH EXT * CONC USED NOT STATED * ACTIVE * K18347 *
DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

HUMULUS LUPULUS CULTIVARS (CANNABACEAE) ESSENTIAL OIL BELGIUM(CULT)

ANTIBACTERIAL ACTIVITY * ESSENTIAL OIL * AGAR PLATE * CONC USED 2.5 MICROLITERS/DISC * ACTIVE * ESCHERICHIA COLI * K09698 *
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS CULTIVARS

HUMULUS LUPULUS CULTIVARS (CANNABACEAE) ESSENTIAL OIL BELGIUM(CULT)

ANTIBACTERIAL ACTIVITY * ESSENTIAL OIL * AGAR PLATE * CONC USED 2.5 MICROLITERS/DISC * ACTIVE * BACILLUS SUBTILIS * K09698 *

ANTIBACTERIAL ACTIVITY * ESSENTIAL OIL * AGAR PLATE * CONC USED 2.5 MICROLITERS/DISC * ACTIVE * STAPHYLOCOCCUS AUREUS * K09698 *

ANTIYEAST ACTIVITY * ESSENTIAL OIL * AGAR PLATE * CONC USED 2.5 MICROLITERS/DISC * ACTIVE * CANDIDA ALBICANS * K09698 *

ANTIFUNGAL ACTIVITY * ESSENTIAL OIL * AGAR PLATE * CONC USED 2.5 MICROLITERS/DISC * ACTIVE * TRICHOPHYTON INTERDIGITALE * K09698 *

HUMULUS LUPULUS CULTIVARS (CANNABACEAE) DRIED STROBILUS BELGIUM(CULT)

ANTIBACTERIAL ACTIVITY * SOLVENT PARTITION FRACTION * AGAR PLATE * CONC USED 20.0 MG/ML * ACTIVE * ESCHERICHIA COLI * K09698 *

ANTIBACTERIAL ACTIVITY * SOLVENT PARTITION FRACTION * AGAR PLATE * CONC USED 20.0 MG/ML * ACTIVE * BACILLUS SUBTILIS * K09698 *

ANTIBACTERIAL ACTIVITY * SOLVENT PARTITION FRACTION * AGAR PLATE * CONC USED 20.0 MG/ML * ACTIVE * STAPHYLOCOCCUS AUREUS * K09698 *

ANTIYEAST ACTIVITY * SOLVENT PARTITION FRACTION * AGAR PLATE * CONC USED 20.0 MG/ML * ACTIVE * CANDIDA ALBICANS * K09698 *

ANTIFUNGAL ACTIVITY * SOLVENT PARTITION FRACTION * AGAR PLATE * CONC USED 20.0 MG/ML * ACTIVE * TRICHOPHYTON INTERDIGITALE * K09698 *
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS CV.WYE TARGET

HUMULUS LUPULUS CV.WYE TARGET (CANNABACEAE) ESSENTIAL OIL NETHERLANDS

ANTIBACTERIAL ACTIVITY * ESSENTIAL OIL * AGAR PLATE * CONC USED 2.5 MICROLITERS/DISC * INACTIVE * ESCHERICHIA COLI * K19321 *

ANTIBACTERIAL ACTIVITY * ESSENTIAL OIL * AGAR PLATE * CONC USED 2.5 MICROLITERS/DISC * ACTIVE * BACILLUS SUBTILIS * K19321 *

ANTIBACTERIAL ACTIVITY * ESSENTIAL OIL * AGAR PLATE * CONC USED 2.5 MICROLITERS/DISC * ACTIVE * STAPHYLOCOCCUS AUREUS * K19321 *

ANTIMICROBIAL ACTIVITY * ESSENTIAL OIL * AGAR PLATE * CONC USED 2.5 MICROLITERS/DISC * INACTIVE * ESCHERICHIA COLI * K19321 *

HUMULUS LUPULUS GENOTYPES (CANNABACEAE) DRIED STROBILUS SERBIA

DRUG INTERACTION * ETOH(70%) EXT * MOUSE * ROUTE NOT GIVEN * DOSE 0.5 %/ACTIVE * L30227 * IN THE SPONTANEOUS MOTILITY TEST, HOPS EXTRACT DOSED AT 24, 16, 2 AND 0.5 HOURS PRIOR TO IP COCAINE ADMINISTRATION. REDUCTION IN THE EFFECT OF COCAINE ON SPONTANEOUS MOTILITY WAS OBSERVED.

SEE ARTICLE FOR OTHER TEST RESULTS.

DRUG INTERACTION * ETOH(70%) EXT * MOUSE * ROUTE NOT GIVEN * DOSE 0.5 %/ACTIVE * L30227 * IN THE HOT-PLATE TEST, HOPS EXTRACT DOSED AT 24, 16, 2 AND 0.5 HOURS PRIOR TO IP PARACETAMOL ADMINISTRATION. POTENTIATION OF THE ANALGESIC EFFECT OF PARACETAMOL WAS OBSERVED.

SEE ARTICLE FOR OTHER TEST RESULTS.

HUMULUS LUPULUS SEX FEMALE (CANNABACEAE) DRIED INFLORESCENCE JAPAN

ANTIBACTERIAL ACTIVITY * MEOH EXT * AGAR PLATE * MIC 0.13 MG/ML * WEAK ACTIVITY * HELICOBACTER PYLORI * L13887 *
BIOLOGICAL ACTIVITIES FOR EXTRACTS OF HUMULUS LUPULUS SEX FEMALE

HUMULUS LUPULUS SEX FEMALE (CANNABACEAE) DRIED INFLORESCENCE USA

NITRIC OXIDE SYNTHASE INHIBITION * PROANTHOCYANIDIN FRACTION * IC50 7.15 MCG/ML * ACTIVE * L19987 * WITH 0.01 MM CACL2.

NITRIC OXIDE SYNTHASE INHIBITION * PROANTHOCYANIDIN FRACTION * IC50 2.4 MCG/ML * ACTIVE * L19987 * WITH 1.0 MM CACL2.

LDL OXIDATION INHIBITION * PROANTHOCYANIDIN FRACTION * CONC USED 0.1 MCG/ML * ACTIVE * L19987 * VS. SIN-1 INDUCED LDL OXIDATION.

HUMULUS LUPULUS SEX MALE (CANNABACEAE) CALLUS DERIVED FROM STEM JAPAN

ANTITUMOR ACTIVITY * H2O EXT * MOUSE * IP * DOSE 100.0 MG/KG * ACTIVE * SARCOMA 180(ASC) * N11897 *
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS

ASTRAGALIN * FLAVONOL * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

CHLOROGENIC ACID * PHENYLPROPANOID * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

COHUMULONE * ALICYCLIC * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

CYNAROSIDE * FLAVONE * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

HESPERIDIN * FLAVANONE * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

HIMYB-3 * PROTEID * STROBILUS * YIELD NOT STATED * H38152

HUMULINONE * ALICYCLIC * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

HUMULONE * ALICYCLIC * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

LUPULONE * ALICYCLIC * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

MALTOSE * CARBOHYDRATE * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

NICOTIFLORIN * FLAVONOL * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS

RUTIN * FLAVONOL * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632
SPIRAEOSIDE * FLAVONOL * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632
XANTHOHUMOL,DEMETHYL: * FLAVONOID * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632
XANTHOHUMOL,ISO: * FLAVANONE * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30632

HUMULUS LUPULUS (CANNABACEAE)

ACETONE * ALKANONE TO C4 * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017
ACETONE * ALKANONE TO C4 * DRIED FRUIT * EUROPE * YIELD NOT STATED * N12648
ADENYLATE-ISO-PENTENYL-TRANSFERASE * PROTEID * FRESH STROBILUS * JAPAN * YIELD NOT STATED * L28211
ADHULUPONE * ALICYCLIC * DRIED STROBILUS * SWEDEN * YIELD NOT STATED * A15514
ADHUMULONE * ALICYCLIC * FRESH STROBILUS * USA * YIELD NOT STATED * A15505
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * A15508
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * YIELD NOT STATED * A15510
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * CANADA * YIELD NOT STATED * A15511
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15519
ADHUMULONE * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS * YIELD NOT STATED * J11311
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
ADHUMULONE * ALICYCLIC * FRESH STROBILUS * NETHERLANDS * YIELD NOT STATED * J17969
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

ADHUMULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * K19124
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * K19132

ADHUMULONE * ALICYCLIC * DRIED STROBILUS * USA-OR(CULT) * YIELD NOT STATED * K21550
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * YIELD NOT STATED * K22034
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * K23838
ADHUMULONE * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * GERMANY * YIELD NOT STATED * L13153
ADHUMULONE * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * * YIELD NOT STATED * L13330
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L23184
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238
ADHUMULONE * ALICYCLIC * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017
ADHUMULONE * ALICYCLIC * DRIED ENTIRE PLANT * TURKEY * YIELD NOT STATED * M31419
ADLUPULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * A15508
ADLUPULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15623
ADLUPULONE * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS * YIELD NOT STATED * J11311
ADLUPULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
ADLUPULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * K19124
ADLUPULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * YIELD NOT STATED * K22034
ADLUPULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * K23838
## PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

**HUMULUS LUPULUS (CANNABACEAE)**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Type</th>
<th>Source</th>
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<td>Adlupulone</td>
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<td>Dried Leaf</td>
<td>Germany</td>
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<td>Dried Strobilus</td>
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PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

ASTRAGALIN * FLAVONOL * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15504
ASTRAGALIN * FLAVONOL * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953

ASTRAGALIN * FLAVONOL * DRIED BRACTS * JAPAN(CULT) * YIELD NOT STATED * L03035

ASTRAGALIN * FLAVONOL * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239

BEHENIC ACID * LIPID * COMMERCIAL SAMPLE OF STROBILUS * YIELD NOT STATED * L30585

BENZYLAMINE, TRI: * ALKALOID-MISC * FRESH STROBILUS * CHINA * 0.00042% * H32196
BERGAMOTENE, ALPHA: * SESQUITERPENE * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403
BETA ACIDS * ALICYCLIC * STROBILUS * CHINA * YIELD NOT STATED * L15315
BUT-3-EN-1-OL, 2-METHYL: * ALKANOL TO C4 * DRIED STROBILUS * YIELD NOT STATED * K23838
BUT-3-EN-2-OL, 2-METHYL: * ALKANOL TO C4 * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017
BUT-3-EN-2-OL, 2-METHYL: * ALKANOL TO C4 * DRIED FRUIT * GERMANY * YIELD NOT STATED * M12982
BUT-3-EN-2-OL, 2-METHYL: * ALKANOL TO C4 * DRIED FRUIT * GERMANY * 0.1% * M13604
BUT-3-EN-2-OL, 2-METHYL: * ALKANOL TO C4 * DRIED FRUIT * EUROPE * YIELD NOT STATED * N12648
BUT-3-EN-2-OL, 2-METHYL: * ALKANOL TO C4 * DRIED FRUIT * YIELD NOT STATED * N16040
BUTANOIC ACID, 2-METHYL: ETHYL ESTER * ALKANE TO C4 * STROBILUS * GERMANY * YIELD NOT STATED * L17300
BUTANOIC ACID, 2-METHYL: METHYL ESTER * ALKANE TO C4 * STROBILUS * GERMANY * YIELD NOT STATED * L17300
BUTANOIC ACID, 2-METHYL: PROPYL ESTER * ALKANE TO C4 * STROBILUS * GERMANY * YIELD NOT STATED * L17300
BUTYRATE, ISO: 2-METHYL-BUTYL: * ALKANOL TO C4 * STROBILUS ESSENT OIL * USA * 0.41-2.32% * L17403
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

BUTYRIC ACID, ISO: 2-METHYL-BUTYL: * ALKANE TO C4 * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793

CADINENE * SESQUITERPENE * LEAF ESSENTIAL OIL * GERMANY * YIELD NOT STATED * L03340

CADINENE * SESQUITERPENE * STROBILUS ESSENT OIL * USA * 00.75-1.53% * L17403

CADINENE, ALPHA: * SESQUITERPENE * STROBILUS ESSENT OIL * ARGENTINA * 00.6% * L10793

CADINENE, DELTA: * SESQUITERPENE * STROBILUS ESSENT OIL * ARGENTINA * 04.1% * L10793

CADINENE, DELTA: * SESQUITERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793

CADINENE, GAMMA: * SESQUITERPENE * STROBILUS ESSENT OIL * ARGENTINA * 05.5% * L10793

CADINENE, GAMMA: * SESQUITERPENE * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403

CADINOL, DELTA: * SESQUITERPENE * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403

CANNABIDIOL * MONOTERPENE * LEAF * ENGLAND * YIELD NOT STATED * J09694

CARYOPHYLLA-3(12)-6-DIEN-4-OL * SESQUITERPENE * ESSENTIAL OIL * JAPAN * YIELD NOT STATED * T07092

CARYOPHYLLA-3(8(13))-DIEN-5-ALA-OL * SESQUITERPENE * ESSENTIAL OIL * JAPAN * YIELD NOT STATED * M15205

CARYOPHYLLA-3(8(13))-DIEN-5-BETA-OL * SESQUITERPENE * ESSENTIAL OIL * JAPAN * YIELD NOT STATED * M15205

CARYOPHYLLA-4(12)-8(13)-DIEN-5-ALA-OL * SESQUITERPENE * ESSENTIAL OIL * JAPAN * YIELD NOT STATED * M15205

CARYOPHYLLENE * SESQUITERPENE * STROBILUS ESSENT OIL * USA * 06.92-15.32% * L17403

CARYOPHYLLENE * SESQUITERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793

CARYOPHYLLENE * SESQUITERPENE * DRIED ENTIRE PLANT * TURKEY * YIELD NOT STATED * M31419
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

CARYOPHYLLENEOXIDE*SESQUITERPENE*STROBILUS ESSENT OIL*ARGENTINA*00.3%*L10793
CARYOPHYLLENEOXIDE*SESQUITERPENE*ESSENTIAL OIL*USA(CULT)*YIELD NOT STATED*M13411
CARYOPHYLLENEOXIDE*SESQUITERPENE*ESSENTIAL OIL*JAPAN*YIELD NOT STATED*T07092
CARYOPHYLLENE,4-5-EPI-THIO:*SESQUITERPENE*ESSENTIAL OIL*YIELD NOT STATED*N04531
CARYOPHYLLENE,BETA:*SESQUITERPENE*ESSENTIAL OIL*USA*YIELD NOT STATED*A15496
CARYOPHYLLENE,BETA:*SESQUITERPENE*STROBILUS ESSENT OIL*ARGENTINA*09.8%*L10793
CARYOPHYLLENE,BETA:*SESQUITERPENE*ESSENTIAL OIL*USA(CULT)*YIELD NOT STATED*M13411
CARYOPHYLLENE,BETA: (?) * SESQUITERPENE * ESSENTIAL OIL * FRANCE * YIELD NOT STATED * A15509
CARYOPHYLLENE,BETA: OXIDE * SESQUITERPENE * LEAF ESSENTIAL OIL * GERMANY * YIELD NOT STATED * L03340
CARYOPHYLLENE,BETA: TRANS: * SESQUITERPENE * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
CARYOPHYLLENE,GAMMA: * SESQUITERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * A15496
CARYOPHYLLENE,TRANS:*SESQUITERPENE*ESSENTIAL OIL*YIELD NOT STATED*L12722
CARYOPHYLOLENE,BETA:*SESQUITERPENE*LEAF ESSENTIAL OIL*GERMANY*YIELD NOT STATED*L03340
CATECHIN,(+): * FLAVONOIDS * DRIED BRACTS * JAPAN(CULT) * YIELD NOT STATED * L03035
CATECHIN,(+): * FLAVONOIDS * DRIED FRUIT * IRELAND * YIELD NOT STATED * N14050
CATECHIN,EPI: (-): * FLAVONOIDS * DRIED BRACTS * JAPAN(CULT) * YIELD NOT STATED * L03035
CATECHIN,EPI: (-): * FLAVONOIDS * DRIED FRUIT * IRELAND * YIELD NOT STATED * N14050
CHALCONARINGENIN,3′-5′-DIPRENYL: * FLAVONOIDS * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

CHALCONARINGENIN,3'-GERANYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
CHALCONARINGENIN,3'-GERANYL: * FLAVONOID * DRIED STROBILUS * * YIELD NOT STATED * L08929

CHALCONARINGENIN,4'-6'-DI-O-METHYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662

CHALCONE,2'-4'-4'-6'-TETRAHYDROXY-3'-GERANYL: * FLAVONOID * DRIED STROBILUS * USA-OR * YIELD NOT STATED * L03979

CHALCONE,2'-4'-4'-6'-TETRAHYDROXY-3'-PRENYL: * FLAVONOID * DRIED STROBILUS * USA-OR * YIELD NOT STATED * L03979

CHALCONE,2'-6'-DIMETHOXY-4-4'-DIHYDROXY: * FLAVONOID * FROZEN FRUIT * JAPAN * 00.0075% * M19982
CHALCONE,3'-ISO-PRENYL)-2'-4-DIHYDROXY-4'-6'-DIMETHOXY: * FLAVONOID * FROZEN FRUIT * JAPAN * 00.002755 * M19982
CHLOROGENIC ACID * PHENYLPROPANOID * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239

CITRAL * MONOTERPENE * ESSENTIAL OIL * USA(CULT) * YIELD NOT STATED * M13411
CODEINE (?) * ISOQUINOLINE ALKALOID * DRIED STROBILUS * RUSSIA * YIELD NOT STATED * L15018
COHULUPONE * ALICYCLIC * DRIED STROBILUS * SWEDEN * YIELD NOT STATED * A15514
COHUMULONE * ALICYCLIC * ESSENTIAL OIL * USA * YIELD NOT STATED * A15496
COHUMULONE * ALICYCLIC * FRESH STROBILUS * USA * YIELD NOT STATED * A15505
COHUMULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * A15508
COHUMULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * YIELD NOT STATED * A15510
COHUMULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15519
COHUMULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15623
COHUMULONE * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS * YIELD NOT STATED * J11311
**PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS**

**HUMULUS LUPULUS (CANNABACEAE)**

- COHUMULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
- COHUMULONE * ALICYCLIC * FRESH STROBILUS * NETHERLANDS * YIELD NOT STATED * J17969

- COHUMULONE * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * K03530

- COHUMULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * K19124

- COHUMULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * K19132

- COHUMULONE * ALICYCLIC * DRIED STROBILUS * USA-OR(CULT) * YIELD NOT STATED * K21550
- COHUMULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * YIELD NOT STATED * K22034
- COHUMULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * K23838

- COHUMULONE * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * GERMANY * YIELD NOT STATED * L13153
- COHUMULONE * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * YIELD NOT STATED * L13330
- COHUMULONE * ALICYCLIC * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L23184
- COHUMULONE * ALICYCLIC * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
- COHUMULONE * ALICYCLIC * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238
- COHUMULONE * ALICYCLIC * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239

- COHUMULONE * ALICYCLIC * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017

- COHUMULONE * ALICYCLIC * DRIED ENTIRE PLANT * TURKEY * YIELD NOT STATED * M31419
- COHUMULONE, 4-DEOXY: * BENZENOID * ENTIRE PLANT * YIELD NOT STATED * J07908
- COHUMULONE, 4-DEOXY: * BENZENOID * ENTIRE PLANT * YIELD NOT STATED * K04590
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

COHUMULONE,DEOXY: * BENZENOID * FRESH STROBILUS * NETHERLANDS(CULT) * YIELD NOT STATED * J18378
COHUMULONE,DEOXY: * BENZENOID * ENTIRE PLANT * YIELD NOT STATED * K03530

COLUPULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * A15508

COLUPULONE * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * J07908

COLUPULONE * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS * YIELD NOT STATED * J11311

COLUPULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
COLUPULONE * ALICYCLIC * FRESH STROBILUS * NETHERLANDS * YIELD NOT STATED * J17969
COLUPULONE * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * K03530
COLUPULONE * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * K04590
COLUPULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * K19124
COLUPULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * YIELD NOT STATED * K22034
COLUPULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * K23838
COLUPULONE * ALICYCLIC * DRIED LEAF * GERMANY * YIELD NOT STATED * L03340
COLUPULONE * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * GERMANY * YIELD NOT STATED * L13153
COLUPULONE * ALICYCLIC * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L23184
COLUPULONE * ALICYCLIC * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
COLUPULONE * ALICYCLIC * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30192
COLUPULONE * ALICYCLIC * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

COLUPULONE * ALICYCLIC * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017
COLUPULONE * ALICYCLIC * DRIED ENTIRE PLANT * TURKEY * YIELD NOT STATED * M31419

COLUPULONE * ALICYCLIC * DRIED FRUIT * * YIELD NOT STATED * W01848

COPAENE,ALPHA: * SESQUITERPENE * STROBILUS ESSENT OIL * ARGENTINA * 01.5% * L10793

CUBEBENE,BETA: * SESQUITERPENE * STROBILUS ESSENT OIL * ARGENTINA * 00.3% * L10793

CUBEBENE,BETA: * SESQUITERPENE * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403
CYCLOHEPT-5-ENE,1-2-3-TRITHIA: 5-(4-METHYL-PENT-3-ENYL): * MONOTERPENE * ESSENTIAL OIL * ENGLAND * YIELD NOT STATED * H00078
CYCLOHEX-4-ENE,1-2-DITHIA: 4-(4-METHYL-PENT-3-ENYL): * MONOTERPENE * ESSENTIAL OIL * ENGLAND * YIELD NOT STATED * H00078
CYCLOOCT-6-ENE,1-2-3-4-TETRATHIA: 6-(4-METHYL-PENT-3-ENYL): * MONOTERPENE * ESSENTIAL OIL * ENGLAND * YIELD NOT STATED * H00078
CYCLOPENT-4-EN-1-3-DIONE,2-2-DI-(3-METHYL-BUT-2-ENYL)-4-5-DIHYDROXY: * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * H31111
CYCLOXANTHOHUMOL,DEHYDRO: * FLAVONOID * DRIED STROBILUS * USA-OR * YIELD NOT STATED * L03979
CYCLOXANTHOHUMOL,DEHYDRO: HYDRATE * FLAVONOID * DRIED STROBILUS * USA-OR * YIELD NOT STATED * L03979
CYCLOXANTHOHUMOL,ISO: DEHYDRO: * FLAVONOID * COMMERCIAL SAMPLE OF STROBILUS * GERMANY * YIELD NOT STATED * H24654
CYMENE,ALLO: * MONOTERPENE * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226
CYNAROSIDE * FLAVONE * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
DEC-4-ENOIC ACID METHYL ESTER * LIPID * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403
DECA-4-8-DIENOIC ACID METHYL ESTER * LIPID * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403
DECAN-1-AL * ALKANAL C5 OR MORE * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

DECAN-2-ONE * ALKANONE C5 OR MORE * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
DECANOIC ACID 4-METHYL ESTER * LIPID * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793

DECANOIC ACID METHYL ESTER * LIPID * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403

DEC-TRANS-2-EN-1-AL,4-5-EPOXY: TRANS: * ALKENAL C5 OR MORE * STROBILUS * GERMANY * YIELD NOT STATED * L17300

DIPHENYLMETHANOL,(4-METHOXY-PHENYL): * QUINOID * FRESH STROBILUS * CHINA * 00.00022% * H32196

DITHINE,1-2: 3-6-DIHYDRO: 4-(4-METHYL-PENT-3-ENYL): * SULFUR COMPOUND * FRUIT * * YIELD NOT STATED * N03108
DODECA-3-6-DIENOIC ACID METHYL ESTER * LIPID * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403
DODECA-3-6-DIENOIC ACID METHYL ESTER * LIPID * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793
ERGOSTEROL * STEROID * DRIED STROBILUS * * YIELD NOT STATED * L30148
ESTRADIOL * STEROID * FRUIT * * YIELD NOT STATED * A00063
ESTRADIOL * STEROID * DRIED FRUIT * ITALY * YIELD NOT STATED * W02428
ESTRONE * STEROID * FRUIT * * YIELD NOT STATED * A00063
ESTRONE * STEROID * DRIED FRUIT * ITALY * YIELD NOT STATED * W02428
ETHYLAMINE * ALKALOID-MISC * DRIED INFLORESCENCE * GERMANY * 05.20 PPM * T07979
EUGENOL * PHENYLPROPANOID * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226
FARNESENE * SESQUITERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793
FARNESENE * SESQUITERPENE * ESSENTIAL OIL * USA(CULT) * YIELD NOT STATED * M13411
FARNESENE,BETA: * SESQUITERPENE * STROBILUS ESSENT OIL * USA * TRACES-8.59% * L17403
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

FARNESENE, BETA: * SESQUITERPENE * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
FARNESENE, BETA: TRANS: * SESQUITERPENE * CALLUS TISSUE * * YIELD NOT STATED * M20922

FARNESOL * SESQUITERPENE * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226

FLAVORINGS * STRUCTURE UNKNOWN * STROBILUS * ENGLAND * YIELD NOT STATED * L18575

FRUCTOSE * CARBOHYDRATE * DRIED STROBILUS * ENGLAND * YIELD NOT STATED * A15491

FURANO-(2''-3''-B)-4,4'-DIHYDROXY-6''CHALCONE,DIHYDRO: 5''-(2'''-HYDROXY-ISO-PROPYL): (-): * FLAVONOID * DRIED STROBILUS * CHINA * YIELD NOT STATED * H34291

GERANIC ACID METHYL ESTER * MONOTERPENE * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403

GERANIOL * MONOTERPENE * STROBILUS ESSENT OIL * ARGENTINA * 01.5% * L10793

GERANIOL * MONOTERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793

GERANIL * MONOTERPENE * ESSENTIAL OIL * USA(CULT) * YIELD NOT STATED * M13411

GERANYL-ISO-BUTYRATE * MONOTERPENE * ESSENTIAL OIL * USA(CULT) * YIELD NOT STATED * M13411

GERMACRATRIENE * SESQUITERPENE * ESSENTIAL OIL * ENGLAND * YIELD NOT STATED * A13541

GERMACRENE D * SESQUITERPENE * ESSENTIAL OIL * STROBILUS ESSENT OIL * ARGENTINA * 00.6% * L10793

GLUCOSE * CARBOHYDRATE * DRIED STROBILUS * ENGLAND * YIELD NOT STATED * A15491

GLUTAMIC ACID * PROTEID * DRIED STROBILUS * RUSSIA * YIELD NOT STATED * L15018

GUAIACOL, 4-VINYL: * BENZENOID * STROBILUS * GERMANY * YIELD NOT STATED * L17300

HESPERIDIN * FLAVANONE * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239

HEXAN-1-AL * ALKANAL C5 OR MORE * STROBILUS * GERMANY * YIELD NOT STATED * L17300

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PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

HUMULENE * SESQUITERPENE * DRIED ENTIRE PLANT * TURKEY * YIELD NOT STATED * M31419
HUMULENE * SESQUITERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * L17300
HUMULENE * SESQUITERPENE * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226
HUMULENE * SESQUITERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793
HUMULENE * SESQUITERPENE * LEAF ESSENTIAL OIL * GERMANY * YIELD NOT STATED * L03340
HUMULENE * SESQUITERPENE * STROBILUS ESSENTIAL OIL * USA (CULT) * YIELD NOT STATED * M13411
HUMULENE DIEPOXIDE A * SESQUITERPENE * ESSENTIAL OIL * USA (CULT) * YIELD NOT STATED * M13411

HISTAMINE * ALKALOID * FRESH STROBILUS * GERMANY * 30-40 MCG/GM * A15503

HOPS BITTER ACIDS * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * L25907

HULUPINIC ACID * ALICYCLIC * DRIED STROBILUS * ENGLAND * YIELD NOT STATED * A15513

HULUPINIC ACID * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
HULUPONE * ALICYCLIC * DRIED STROBILUS * SWEDEN * YIELD NOT STATED * A15514
HULUPONE * ALICYCLIC * DRIED FRUIT * POLAND * 02.1-3.9% * M13244
HUMULENE * SESQUITERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * A15496
HUMULENE * SESQUITERPENE * ESSENTIAL OIL * FRANCE * YIELD NOT STATED * A15509
HUMULENE * SESQUITERPENE * DRIED STROBILUS * YIELD NOT STATED * H31111
HUMULENE * SESQUITERPENE * FLOWERS * USA * YIELD NOT STATED * L00715
HUMULENE * SESQUITERPENE * LEAF ESSENTIAL OIL * GERMANY * YIELD NOT STATED * L03340
HUMULENE * SESQUITERPENE * STROBILUS ESSENTIAL OIL * USA * 22.66-35.14% * L17403
HUMULENE * SESQUITERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793
HUMULENE * SESQUITERPENE * DRIED ENTIRE PLANT * TURKEY * YIELD NOT STATED * M31419
HUMULENE * SESQUITERPENE * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226
HUMULENE DIEPOXIDE A * SESQUITERPENE * ESSENTIAL OIL * USA (CULT) * YIELD NOT STATED * M13411
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

HUMULENE EPOXIDE * SESQUITERPENE * CONE ESSENTIAL OIL * YUGOSLAVIA * YIELD NOT STATED * K21158
HUMULENE EPOXIDE II * SESQUITERPENE * ESSENTIAL OIL * JAPAN * YIELD NOT STATED * T07092

HUMULENE MONOEP OXIDE I * SESQUITERPENE * ESSENTIAL OIL * USA(CULT) * YIELD NOT STATED * M13411

HUMULENE,1-2-EPI-THIO: * SESQUITERPENE * ESSENTIAL OIL * YIELD NOT STATED * N04531

HUMULENE,8-9-EPI-THIO: * SESQUITERPENE * ESSENTIAL OIL * YIELD NOT STATED * N04531

HUMULENE,ALPHA: * SESQUITERPENE * STROBILUS ESSENTIAL OIL * ARGENTINA * 36.7% * L10793
HUMULENE,ALPHA: * SESQUITERPENE * ESSENTIAL OIL * YIELD NOT STATED * L12722
HUMULENE,ALPHA: * SESQUITERPENE * STROBILUS * GERMANY * YIELD NOT STATED * L17300
HUMULENE,ALPHA: * SESQUITERPENE * ESSENTIAL OIL * USA(CULT) * YIELD NOT STATED * M13411
HUMULENE,ALPHA: * SESQUITERPENE * ESSENTIAL OIL * NETHERLANDS * 40.0% * M29436
HUMULENE,METHYL-THIO: * SESQUITERPENE * ESSENTIAL OIL * YIELD NOT STATED * N08538

HUMULENOL II * SESQUITERPENE * ESSENTIAL OIL * USA(CULT) * YIELD NOT STATED * M13411
HUMULENOL II * SESQUITERPENE * ESSENTIAL OIL * JAPAN * YIELD NOT STATED * T07092
HUMULINONE * ALICYCLIC * STROBILUS * ENGLAND * YIELD NOT STATED * A15497
HUMULINONE * ALICYCLIC * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
HUMULOL * ALICYCLIC * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
HUMULONE * ALICYCLIC * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15487
HUMULONE * ALICYCLIC * DRIED STROBILUS * CANADA * YIELD NOT STATED * A15489

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PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

HUMULONE * ALICYCLIC * DRIED STROBILUS * FRANCE * YIELD NOT STATED * A15490
HUMULONE * ALICYCLIC * STROBILUS * GERMANY * YIELD NOT STATED * A15493

HUMULONE * ALICYCLIC * ESSENTIAL OIL * USA * YIELD NOT STATED * A15496

HUMULONE * ALICYCLIC * FRESH STROBILUS * USA * YIELD NOT STATED * A15505

HUMULONE * ALICYCLIC * DRIED STROBILUS * JAPAN * YIELD NOT STATED * A15506

HUMULONE * ALICYCLIC * DRIED STROBILUS * FRANCE * YIELD NOT STATED * A15508
HUMULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * YIELD NOT STATED * A15510
HUMULONE * ALICYCLIC * DRIED STROBILUS * CANADA * YIELD NOT STATED * A15511
HUMULONE * ALICYCLIC * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15518
HUMULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15519
HUMULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15623
HUMULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15628
HUMULONE * ALICYCLIC * STROBILUS * GERMANY * YIELD NOT STATED * A15632
HUMULONE * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * J07908
HUMULONE * ALICYCLIC * INFLORESCENCE * JAPAN(CULT) * YIELD NOT STATED * J11112
HUMULONE * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS * YIELD NOT STATED * J11311
HUMULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
HUMULONE * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * K03530
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

HUMULONE * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * K04588
HUMULONE * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * K04590

HUMULONE * ALICYCLIC * DRIED FRUIT * JAPAN * YIELD NOT STATED * K11173

HUMULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * K19124

HUMULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * K19132

HUMULONE * ALICYCLIC * DRIED STROBILUS * USA-OR(CULT) * YIELD NOT STATED * K21550
HUMULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * <0.50% * K22033
HUMULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * YIELD NOT STATED * K22034
HUMULONE * ALICYCLIC * DRIED STROBILUS * JAPAN * YIELD NOT STATED * K22625
HUMULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * K23836
HUMULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * K23838
HUMULONE * ALICYCLIC * FLOWERS * USA * YIELD NOT STATED * L00715
HUMULONE * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * GERMANY * YIELD NOT STATED * L13153
HUMULONE * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * YIELD NOT STATED * L13330
HUMULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * L25695
HUMULONE * ALICYCLIC * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
HUMULONE * ALICYCLIC * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238
HUMULONE * ALICYCLIC * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

HUMULONE * ALICYCLIC * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017
HUMULONE * ALICYCLIC * DRIED ENTIRE PLANT * TURKEY * YIELD NOT STATED * M31419

HUMULONE,4-DEOXY: * ALICYCLIC * STROBILUS * GERMANY * YIELD NOT STATED * A15498
HUMULONE,4-DEOXY: * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * A15508
HUMULONE,4-DEOXY: * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * J07908

HUMULONE,4-DEOXY: * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * K04589
HUMULONE,4-DEOXY: * ALICYCLIC * ENTIRE PLANT * YIELD NOT STATED * K04590
HUMULONE,4-DEOXY: * ALICYCLIC * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017
HUMULONE,DEOXY: * BENZENOID * FRESH STROBILUS * NETHERLANDS(CULT) * YIELD NOT STATED * J18378
HUMULONE,DEOXY: * BENZENOID * ENTIRE PLANT * YIELD NOT STATED * K03530
HUMULONE,ISO: * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * A15624
HUMULONE,ISO: CIS: * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * L30337
HUMULONE,ISO: TRANS: * ALICYCLIC * FLOWERS * YIELD NOT STATED * K14637
HUMULONE,N: * ALICYCLIC * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L23184
HUMULONE,POST: * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * A15508
HUMULONE,POST: * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS * YIELD NOT STATED * J11311
HUMULONE,POST: * ALICYCLIC * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
HUMULONE,PRE: * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * A15508
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

HUMULONE, PRE: * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS * YIELD NOT STATED * J11311

HUMULONE, PRE: * ALICYCLIC * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161

HUMULONE, PRE: * ALICYCLIC * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161

HUMULONE, TRICYCLO-DEHYDO: * DITERPENE * FRUIT * * 00.3% * N02464

HUMULUS LUPULONE DERIVATIVE 10 * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * H31111

HUMULUS LUPULONE DERIVATIVE 11 * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * H31111

HUMULUS LUPULONE DERIVATIVE 9 * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * H31111

HUMULUS LUPULUS CHALCONE DERIVATIVE 7 * FLAVONOID * DRIED STROBILUS * * YIELD NOT STATED * H31111

HYPEROSIDE * FLAVONOL * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953

HYPEROSIDE * FLAVONOL * DRIED STROBILUS * RUSSIA * YIELD NOT STATED * L15018

IONONE, GAMMA: * SESQUITERPENE * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226

KAEMPFEROL-3-RHAMNOGLUCOSIDE * FLAVONOL * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15504

KAEMPFEROL-3-RHAMNOGLUCOSIDE * FLAVONOL * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15504

KAEMPFEROL-3-RHAMSIDE * FLAVONOL * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953

LEUCOCYANIDIN * FLAVONOID * DRIED STROBILUS * FRANCE * YIELD NOT STATED * A15502

LEUCODELPHINIDIN * FLAVONOID * DRIED STROBILUS * FRANCE * YIELD NOT STATED * A15502

LIGNOCERIC ACID * LIPID * COMMERCIAL SAMPLE OF STROBILUS * * YIELD NOT STATED * L30585

LIMONENE * MONOTERPENE * ESSENTIAL OIL * FRANCE * YIELD NOT STATED * A15509
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

LIMONENE * MONOTERPENE * CONE ESSENTIAL OIL * YUGOSLAVIA * YIELD NOT STATED * K21158
LIMONENE * MONOTERPENE * STROBILUS ESSENT OIL * ARGENTINA * 00.5% * L10793

LIMONENE * MONOTERPENE * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226

LINALOOL * MONOTERPENE * CONE ESSENTIAL OIL * YUGOSLAVIA * YIELD NOT STATED * K21158

LINALOOL * MONOTERPENE * LEAF ESSENTIAL OIL * GERMANY * YIELD NOT STATED * L03340

LINALOOL * MONOTERPENE * STROBILUS ESSENT OIL * ARGENTINA * 01.1% * L10793
LINALOOL * MONOTERPENE * STROBILUS * GERMANY * YIELD NOT STATED * L17300
LINALOOL * MONOTERPENE * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403
LINALOOL * MONOTERPENE * ESSENTIAL OIL * USA * YIELD NOT STATED * L23793
LINALOOL * MONOTERPENE * ESSENTIAL OIL * USA(CULT) * YIELD NOT STATED * M13411
LINOLEIC ACID * LIPID * COMMERCIAL SAMPLE OF STROBILUS * YIELD NOT STATED * L30585
LINOLEIC ACID * LIPID * COMMERCIAL SAMPLE OF STROBILUS * YIELD NOT STATED * L30585
LUPULIN * STRUCTURE UNKNOWN * FRUIT * YIELD NOT STATED * J09437
LUPULONE * ALICYCLIC * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15487
LUPULONE * ALICYCLIC * DRIED STROBILUS * CANADA * YIELD NOT STATED * A15489
LUPULONE * ALICYCLIC * STROBILUS * GERMANY * YIELD NOT STATED * A15493
LUPULONE * ALICYCLIC * DRIED STROBILUS * JAPAN * YIELD NOT STATED * A15506
LUPULONE * ALICYCLIC * DRIED STROBILUS * YIELD NOT STATED * A15508
HUMULUS LUPULUS (CANNABACEAE)

LUPULONE * ALICYCLIC * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15518
LUPULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15624

LUPULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15628
LUPULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * A15629
LUPULONE * ALICYCLIC * STROBILUS * GERMANY * YIELD NOT STATED * A15632
LUPULONE * ALICYCLIC * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * H31111
LUPULONE * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
LUPULONE * ALICYCLIC * ENTIRE PLANT * * YIELD NOT STATED * J07908
LUPULONE * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS * YIELD NOT STATED * J11311
LUPULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
LUPULONE * ALICYCLIC * FRESH STROBILUS * NETHERLANDS * YIELD NOT STATED * J17969
LUPULONE * ALICYCLIC * ENTIRE PLANT * * YIELD NOT STATED * K03530
LUPULONE * ALICYCLIC * ENTIRE PLANT * * YIELD NOT STATED * K04588
LUPULONE * ALICYCLIC * ENTIRE PLANT * * YIELD NOT STATED * K04589
LUPULONE * ALICYCLIC * ENTIRE PLANT * * YIELD NOT STATED * K04590
LUPULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * K19124
LUPULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * >0.13% * K22033
LUPULONE * ALICYCLIC * DRIED STROBILUS * GERMANY * YIELD NOT STATED * K22034
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

LUPULONE * ALICYCLIC * DRIED STROBILUS * JAPAN * YIELD NOT STATED * K22625
LUPULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * K23836

LUPULONE * ALICYCLIC * DRIED STROBILUS * * YIELD NOT STATED * K23838

LUPULONE * ALICYCLIC * FLOWERS * USA * YIELD NOT STATED * L00715

LUPULONE * ALICYCLIC * DRIED LEAF * GERMANY * YIELD NOT STATED * L03340

LUPULONE * ALICYCLIC * COMMERCIAL SAMPLE OF STROBILUS * GERMANY * YIELD NOT STATED * L13153
LUPULONE * ALICYCLIC * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
LUPULONE * ALICYCLIC * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30192
LUPULONE * ALICYCLIC * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238
LUPULONE * ALICYCLIC * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
LUPULONE * ALICYCLIC * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017
LUPULONE * ALICYCLIC * DRIED ENTIRE PLANT * TURKEY * YIELD NOT STATED * M31419
LUPULONE * ALICYCLIC * DRIED FRUIT * * YIELD NOT STATED * W01848
LUPULONE A * OXYGEN HETEROCYCLE * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
LUPULONE B * OXYGEN HETEROCYCLE * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
LUPULONE C * OXYGEN HETEROCYCLE * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
LUPULONE D * OXYGEN HETEROCYCLE * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
LUPULONE E * OXYGEN HETEROCYCLE * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

LUPULONE F * OXYGEN HETEROCYCLE * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
LUPULONE,N: * ALICYCLIC * DRIED STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L23184

LUPULONE,POST: * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS * YIELD NOT STATED * J11311

LUPULONE,PRE: * ALICYCLIC * FRUIT * YIELD NOT STATED * A04725

LUPULONE,PRE: * ALICYCLIC * DRIED STROBILUS YIELD NOT STATED * A15508

LUPULONE,PRE: * ALICYCLIC * FEMALE FLOWERS * NETHERLANDS YIELD NOT STATED * J11311
MALTOSE * CARBOHYDRATE * DRIED STROBILUS * SPAIN YIELD NOT STATED * L30239
METHIONAL * PROTEID * STROBILUS * GERMANY YIELD NOT STATED * L17300
METHYLAMINE * ALKALOID-MISC * DRIED INFLORESCENCE * GERMANY 03.70 PPM T07979
METHYL-NONYL-KETONE * ALKANONE C5 OR MORE * ESSENTIAL OIL USA YIELD NOT STATED * A15496
METHYL-NONYL-KETONE * ALKANONE C5 OR MORE * ESSENTIAL OIL * FRANCE YIELD NOT STATED * A15509
MUUROLENE,ALPHA: * SESQUITERPENE * STROBILUS ESSENT OIL ARGENTINA 03.0% L10793
MUUROLENE,GAMMA: * SESQUITERPENE * LEAF ESSENTIAL OIL GERMANY YIELD NOT STATED L03340
MUUROLENE,GAMMA: * SESQUITERPENE * STROBILUS ESSENT OIL USA 00.10-0.36% L17403
MYRCENE * MONOTERPENE * ESSENTIAL OIL USA YIELD NOT STATED A15496
MYRCENE * MONOTERPENE * ESSENTIAL OIL * FRANCE YIELD NOT STATED A15509
MYRCENE * MONOTERPENE * ESSENTIAL OIL YIELD NOT STATED K04634
MYRCENE * MONOTERPENE * ESSENTIAL OIL * YIELD NOT STATED * K04634
### PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

**HUMULUS LUPULUS (CANNABACEAE)**

- MYRCENE: MONOTERPENE: ESSENTIAL OIL: YIELD NOT STATED: K04634
- MYRCENE: MONOTERPENE: FRESH STROBILUS: CHINA: YIELD NOT STATED: K14934
- MYRCENE: MONOTERPENE: CONE ESSENTIAL OIL: YUGOSLAVIA: YIELD NOT STATED: K21158
- MYRCENE: MONOTERPENE: LEAF ESSENTIAL OIL: GERMANY: YIELD NOT STATED: L03340
- MYRCENE: MONOTERPENE: STROBILUS ESSENT OIL: ARGENTINA: 25.4%: L10793
- MYRCENE: MONOTERPENE: ESSENTIAL OIL: YIELD NOT STATED: L12722
- MYRCENE: MONOTERPENE: STROBILUS: GERMANY: YIELD NOT STATED: L17300
- MYRCENE: MONOTERPENE: ESSENTIAL OIL: USA: YIELD NOT STATED: L23793
- MYRCENE: MONOTERPENE: INFLORESCENCE: GERMANY: YIELD NOT STATED: M12017
- MYRCENE: MONOTERPENE: ESSENTIAL OIL: USA(CULT): YIELD NOT STATED: M13411
- MYRCENE: MONOTERPENE: DRIED ENTIRE PLANT: TURKEY: YIELD NOT STATED: M31419
- MYRCENE: MONOTERPENE: DRIED FRUIT: EUROPE: YIELD NOT STATED: N12648
- MYRCENE: MONOTERPENE: ESSENTIAL OIL: CHINA: YIELD NOT STATED: T13226
- MYRCENE: BETA: MONOTERPENE: STROBILUS ESSENT OIL: USA: 27.6-49.5%: L17403
- MYRICETIN, 5-7-DI-O-METHYL: FLAVANONE: DRIED STROBILUS: USA: YIELD NOT STATED: H28662
- NARINGENIN, 5-7-DI-O-METHYL: FLAVANONE: DRIED STROBILUS: USA: YIELD NOT STATED: H28662
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

NARINGENIN,6-8-DIPRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
NARINGENIN,6-GERANYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662

NARINGENIN,6-GERANYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * L17592

NARINGENIN,6-ISO-PENTENYL: * FLAVANONE * DRIED RESIN * JAPAN * 00.23750% * H00180

NARINGENIN,6-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662

NARINGENIN,6-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * L04448
NARINGENIN,6-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * L17592
NARINGENIN,6-PRENYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * L30338
NARINGENIN,7-O-METHYL-6-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
NARINGENIN,7-O-METHYL-8-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
NARINGENIN,8-GERANYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
NARINGENIN,8-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
NARINGENIN,8-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * L04448
NARINGENIN,8-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * L17592
NARINGENIN,8-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * L30338
NARINGENIN,8-PRENYL: * FLAVANONE * STROBILUS * USA * YIELD NOT STATED * L30633
NEROL * MONOTERPENE * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226
NH3 * INORGANIC * DRIED INFLORESCENCE * GERMANY * 10660 PPM * T07979
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

NICOTIFLORIN * FLAVONOL * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
NICOTIFLORIN * FLAVONOL * DRIED BRACTS * JAPAN(CULT) * YIELD NOT STATED * L03035

NICOTIFLORIN * FLAVONOL * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239

NONAN-1-AL * ALKANAL C5 OR MORE * STROBILUS * GERMANY * YIELD NOT STATED * L17300

NONAN-1-OL * ALKANOL C5 OR MORE * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403

NONAN-2-OL * ALKANOL C5 OR MORE * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403
NONANEDIOIC ACID * LIPID * COMMERCIAL SAMPLE OF STROBILUS * 0.05120 % * L30585
NONA-TRANS-2-CIS-6-DIEN-1-AL * ALKENAL C5 OR MORE * STROBILUS * GERMANY * YIELD NOT STATED * L17300

O * LEUCOANTHOCYANINS PRESENT * PART NOT SPECIFIED * ROUMANIA * YIELD NOT STATED * W00784
OCIMENE,BETA: * MONOTERPENE * STROBILUS ESSENT OIL * USA * 00.078-1.27% * L17403
OCIMENE,TRANS: * MONOTERPENE * STROBILUS ESSENT OIL * ARGENTINA * 01.0% * L10793

OCT-1-EN-3-ONE * ALKENONE C5 OR MORE * STROBILUS * GERMANY * YIELD NOT STATED * L17300

OCTA-CIS-1-5-DIEN-3-ONE * ALKENONE C5 OR MORE * STROBILUS * GERMANY * YIELD NOT STATED * L17300

OCTADECA NOIC ACID METHYL ESTER * LIPID * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161

OCTAN-1-AL * ALKANAL C5 OR MORE * STROBILUS * GERMANY * YIELD NOT STATED * L17300

OCTANOIC ACID METHYL ESTER * LIPID * STROBILUS ESSENT OIL * USA * 00.10-1.26% * L17403

OLEIC ACID * LIPID * COMMERCIAL SAMPLE OF STROBILUS * YIELD NOT STATED * L30585

PALMITIC ACID * LIPID * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

PALMITIC ACID * LIPID * COMMERCIAL SAMPLE OF STROBILUS * 0.10240 % * L30585

PAPAVERINE (?) * ISOQUINOLINE ALKALOID * DRIED STROBILUS * RUSSIA * YIELD NOT STATED * L15018

PENTADECAN-2-ONE * ALKANONE C5 OR MORE * LEAF ESSENTIAL OIL * GERMANY * YIELD NOT STATED * L03340

PENTANE,2-3-4-TRITHIA: * SULFUR COMPOUND * ESSENTIAL OIL * ENGLAND * YIELD NOT STATED * L02773

PEROXIDASE * PROTEID * FRESH LEAF * YIELD NOT STATED * L24897

PHENYL]-3-(4-HYDROXY-PHENYL)-PROPENONE.1-[2,4-DIHYDROXY-3-(3-HYDROXY-2-METHOXY-3-METHYL-BUTYL)-6-METHOXY: * FLAVONOID * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723

PHENYLETHANOL * BENZENOID * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226

PHLORISOBUTYROPHENONE * ALICYCLIC * FRESH STROBILUS * NETHERLANDS * YIELD NOT STATED * J17969

PHLORISOBUTYROPHENONE.4-PRENYL: * BENZENOID * FRESH STROBILUS * NETHERLANDS(CULT) * YIELD NOT STATED * J18378

PHLOR-ISO-VALEROPHENONE * BENZENOID * FRESH STROBILUS * NETHERLANDS * YIELD NOT STATED * J17969

PHLOR-ISO-VALEROPHENONE.4-PRENYL: * BENZENOID * FRESH STROBILUS * NETHERLANDS(CULT) * YIELD NOT STATED * J18378

PINENE,ALPHA: * MONOTERPENE * CONE ESSENTIAL OIL * YUGOSLAVIA * YIELD NOT STATED * K21158

PINENE,ALPHA: * MONOTERPENE * STROBILUS ESSENT OIL * ARGENTINA * 00.3% * L10793

PINENE,BETA: * MONOTERPENE * CONE ESSENTIAL OIL * YUGOSLAVIA * YIELD NOT STATED * K21158

PINENE,BETA: * MONOTERPENE * STROBILUS ESSENT OIL * ARGENTINA * 00.4% * L10793

PINENE,BETA: * MONOTERPENE * DRIED ENTIRE PLANT * TURKEY * YIELD NOT STATED * M31419

PINENE,GAMMA: * MONOTERPENE * ESSENTIAL OIL * FRANCE * YIELD NOT STATED * A15509

PIPERIDINE * ALKALOID * DRIED INFLORESCENCE * GERMANY * 02.50 PPM * T07979
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

POLYPHENOLIC SUBSTANCES * STRUCTURE UNKNOWN * STROBILUS * JAPAN * YIELD NOT STATED * L15882
POSTHUMULONE * BENZENOID * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017

PREHUMULONE * BENZENOID * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017

PRELUPULONE * ALICYCLIC * INFLORESCENCE * GERMANY * YIELD NOT STATED * M12017

PROANTHOCYANIDIN * FLAVONOID * FRESH STROBILUS * GERMANY * YIELD NOT STATED * A15512

PROCYANIDIN B-1 * FLAVONOID * DRIED FRUIT * IRELAND * YIELD NOT STATED * N14050
PROCYANIDIN B-2 * FLAVONOID * DRIED FRUIT * IRELAND * YIELD NOT STATED * N14050
PROCYANIDIN B-3 * FLAVONOID * DRIED FRUIT * IRELAND * YIELD NOT STATED * N14050
PROCYANIDIN B-3 * FLAVONOID * DRIED FRUIT * IRELAND * YIELD NOT STATED * N14050
PROCYANIDIN B-4 * FLAVONOID * DRIED FRUIT * IRELAND * YIELD NOT STATED * N14050
PRODELPHINIDIN B-3 * FLAVONOID * DRIED FRUIT * IRELAND * YIELD NOT STATED * N14050
PROPANOATE,2-METHYL: ETHYL: * ALKANE TO C4 * STROBILUS * GERMANY * YIELD NOT STATED * L17300
PYRROLIDINE * ALKALOID * DRIED INFLORESCENCE * GERMANY * 01.00 PPM * T07979
QUERCETIN * FLAVONOL * DRIED STROBILUS * RUSSIA * YIELD NOT STATED * L15018
QUERCETIN-3-RHAMNODIGLUCOSIDE * FLAVONOL * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15504
QUERCITRIN * FLAVONOL * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
QUERCITRIN,ISO: * FLAVONOL * DRIED STROBILUS * GERMANY * YIELD NOT STATED * A15494
QUERCITRIN,ISO: * FLAVONOL * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15504
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

QUERCITRIN,ISO: * FLAVONOL * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
QUERCITRIN,ISO: * FLAVONOL * DRIED BRACTS * JAPAN(CULT) * YIELD NOT STATED * L03035

RAFFINOSE * CARBOHYDRATE * DRIED STROBILUS * ENGLAND * YIELD NOT STATED * A15491

RESVERATROL,TRANS: * STILBENE * FRESH GLAND(MOLTING) * USA * YIELD NOT STATED * L30139
RESVERATROL,TRANS: * STILBENE * FRESH STROBILUS * CZECH REPUBLIC * YIELD NOT STATED * L30139
RESVERATROL,TRANS: * STILBENE * FRESH STROBILUS * GERMANY * YIELD NOT STATED * L30139
RUTIN * FLAVONOL * DRIED STROBILUS * GERMANY * YIELD NOT STATED * A15494
RUTIN * FLAVONOL * DRIED STROBILUS * CZECHOSLOVAKIA * YIELD NOT STATED * A15504
RUTIN * FLAVONOL * DRIED STROBILUS * BELGIUM(CULT) * YIELD NOT STATED * J16953
RUTIN * FLAVONOL * DRIED BRACTS * JAPAN(CULT) * YIELD NOT STATED * L03035
RUTIN * FLAVONOL * DRIED STROBILUS * RUSSIA * YIELD NOT STATED * L15018
RUTIN * FLAVONOL * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
SABINENE * MONOTERPENE * STROBILUS ESSENT OIL * ARGENTINA * 01.4% * L10793
SELINANE-3-7(11)-DIENE * SESQUITERPENE * DRIED FRUIT * ENGLAND * YIELD NOT STATED * A13561
SELINA-4(14)-7(11)-DIENE * SESQUITERPENE * DRIED FRUIT * ENGLAND * YIELD NOT STATED * A13561
SELINENE,ALPHA: * SESQUITERPENE * LEAF ESSENTIAL OIL * GERMANY * YIELD NOT STATED * L03340
SELINENE,ALPHA: * SESQUITERPENE * STROBILUS ESSENT OIL * ARGENTINA * 01.0% * L10793
SELINENE,BETA: * SESQUITERPENE * LEAF ESSENTIAL OIL * GERMANY * YIELD NOT STATED * L03340
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

- Selinene, Beta: * Sesquiterpene * Strobilus Essential Oil * Argentina * 01.2% * L10793
- Selinene, Beta: * Sesquiterpene * Strobilus Essential Oil * USA * 00.12-1.75% * L17403
- Selinene, Gamma: * Sesquiterpene * Strobilus Essential Oil * USA * 00.36-1.75% * L17403
- Sitosterol, Beta: * Steroid * Entire Plant * Yield Not Stated * K04590
- Sitosterol, Beta: * Steroid * Dried Strobilus * Estonia * Yield Not Stated * L30161
- Spiraeoside: * Flavonol * Dried Strobilus * Spain * Yield Not Stated * L30239
- Squalene: * Triterpene * Entire Plant * Yield Not Stated * K04590
- Stachyose: * Carbohydrate * Dried Strobilus * England * Yield Not Stated * A15491
- Stearic Acid: * Lipid * Commercial Sample of Strobilus * Yield Not Stated * L30585
- Sucrose: * Carbohydrate * Dried Strobilus * England * Yield Not Stated * A15491
- Terpinene, Alpha: * Monoterpenes * Strobilus Essential Oil * Argentina * 00.5% * L10793
- Terpineol, Alpha: * Monoterpenes * Essential Oil * USA (Cult) * Yield Not Stated * M13411
- Thia-hex-2-ene, 5: 2-Methyl: * Sulfur Compound * Essential Oil * Yield Not Stated * N08538
- Thiophene, 3-(4-Methyl-Pent-3-Enyl): * Sulfur Compound * Essential Oil * England * Yield Not Stated * H00078
- Thiophene, 3-(4-Methyl-Pent-3-Enyl): * Sulfur Compound * Fruit * Yield Not Stated * N03108
- Tocopherol, Alpha: * Oxygen Heterocycle * Fresh Strobilus * Japan * Yield Not Stated * K18347
- Tocopherol, Alpha: * Oxygen Heterocycle * Dried Strobilus * Japan * Yield Not Stated * K18347
- Toluene, Butylated-Hydroxy: * Benzenoid * Fresh Strobilus * China * Yield Not Stated * K14934
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

TRICYCLOISOHUMULONE * DITERPENE * DRIED INFLORESCENCE * YIELD NOT STATED * N05181

TRIDECAN-2-ONE * ALKANONE C5 OR MORE * STROBILUS ESSENT OIL * USA * YIELD NOT STATED * L17403

TYROSINE * PROTEID * DRIED STROBILUS * RUSSIA * YIELD NOT STATED * L15018

UNDECA-1-TRANS-3-CIS-5-9-TETRAENE * ALKENE C5 OR MORE * STROBILUS * GERMANY * YIELD NOT STATED * L17300

UNDECA-1-TRANS-3-CIS-5-TRIENE * ALKENE C5 OR MORE * STROBILUS * GERMANY * YIELD NOT STATED * L17300

UNDECAN-2-AL * ALKANAL C5 OR MORE * ESSENTIAL OIL * CHINA * YIELD NOT STATED * T13226

VALEROPHENONE SYNTHASE * PROTEID * FRESH STROBILUS * GERMANY * YIELD NOT STATED * J19772

XANTHOGALENOL * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662

XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * ENGLAND * YIELD NOT STATED * A15513

XANTHOHUMOL * FLAVONOID * DRIED RESIN * JAPAN * 07.87500% * H00180

XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * CZECHOSLOVAKIA * 00.03495% * H20962

XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662

XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * YIELD NOT STATED * H31111

XANTHOHUMOL * FLAVONOID * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723

XANTHOHUMOL * FLAVONOID * INFLORESCENCE * JAPAN(CULT) * YIELD NOT STATED * J11112

XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * GERMANY * <0.03% * K22033

XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * YIELD NOT STATED * K23836

XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * YIELD NOT STATED * K23838

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PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * USA-OR * YIELD NOT STATED * L03979
- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * * YIELD NOT STATED * L04448

- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * * YIELD NOT STATED * L08929

- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * * YIELD NOT STATED * L14681

- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * L17592

- XANTHOHUMOL * FLAVONOID * STROBILUS * GERMANY * YIELD NOT STATED * L18555
- XANTHOHUMOL * FLAVONOID * FRESH SPLEEN * GERMANY * YIELD NOT STATED * L26912
- XANTHOHUMOL * FLAVONOID * FRESH STROBILUS * GERMANY * YIELD NOT STATED * L26914
- XANTHOHUMOL * FLAVONOID * FRESH STROBILUS * GERMANY * YIELD NOT STATED * L28199
- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161
- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * * YIELD NOT STATED * L30188
- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30192
- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238
- XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
- XANTHOHUMOL * FLAVONOID * FROZEN FRUIT * JAPAN * 00.00155 * M19982
- XANTHOHUMOL * FLAVONOID * FRESH STROBILUS * * YIELD NOT STATED * T13849
- XANTHOHUMOL B * FLAVONOID * DRIED STROBILUS * CZECHOSLOVAKIA * 00.0019% * H20962
- XANTHOHUMOL B * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

XANTHOHUMOL B * FLAVONOID * DRIED STROBILUS * YIELD NOT STATED * H31111
XANTHOHUMOL B * FLAVONOID * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723

XANTHOHUMOL C * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662

XANTHOHUMOL D * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H31111

XANTHOHUMOL D * FLAVONOID * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
XANTHOHUMOL E * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
XANTHOHUMOL,4'-O-METHYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
XANTHOHUMOL,5'-PRENYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
XANTHOHUMOL,ALPHA-BETA-DIHYDRO: * FLAVONOID * COMMERCIAL SAMPLE OF STROBILUS * GERMANY * YIELD NOT STATED * H24654
XANTHOHUMOL,DEMETHYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
XANTHOHUMOL,DEMETHYL: * FLAVONOID * DRIED STROBILUS * YIELD NOT STATED * L14681
XANTHOHUMOL,DEMETHYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * L17592
XANTHOHUMOL,DEMETHYL: * FLAVONOID * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
XANTHOHUMOL,DEMETHYL: * FLAVONOID * FRESH STROBILUS * YIELD NOT STATED * T13849
XANTHOHUMOL,DIHYDRO: * FLAVONOID * COMMERCIAL SAMPLE OF STROBILUS * USA * YIELD NOT STATED * H32723
XANTHOHUMOL,DIHYDROXY: * FLAVONOID * DRIED STROBILUS * YIELD NOT STATED * H31111
XANTHOHUMOL,ISO: * FLAVANONE * DRIED RESIN * JAPAN * 04.25000% * H00180
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS

HUMULUS LUPULUS (CANNABACEAE)

XANTHOHUMOL,ISO: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
XANTHOHUMOL,ISO: * FLAVANONE * DRIED STROBILUS * USA-OR * YIELD NOT STATED * L03979

XANTHOHUMOL,ISO: * FLAVANONE * FRESH STROBILUS * GERMANY * YIELD NOT STATED * L26914

XANTHOHUMOL,ISO: * FLAVANONE * DRIED STROBILUS * ESTONIA * YIELD NOT STATED * L30161

XANTHOHUMOL,ISO: * FLAVANONE * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30192

XANTHOHUMOL,ISO: * FLAVANONE * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238
XANTHOHUMOL,ISO: * FLAVANONE * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
XANTHOHUMOL,ISO: * FLAVANONE * FROZEN FRUIT * JAPAN * 00.18375% * M19982
XANTHOHUMOL,ISO: * FLAVANONE * FROZEN FRUIT * USA * YIELD NOT STATED * L17592

XANTHOHUMUL,DEMETHYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * L08929
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * USA-OR * YIELD NOT STATED * L03979
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * USA-OR * YIELD NOT STATED * L03979
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H28662
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * SPAIN * YIELD NOT STATED * L30239
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * USA-OR * YIELD NOT STATED * L03979
XANTHOHUMUL,ISO: * FLAVANONE * DRIED STROBILUS * SLOVENIA * YIELD NOT STATED * L30238

HUMULUS LUPULUS CULTIVARS (CANNABACEAE)

CADINENE,DELTA: * SESQUITERPENE * ESSENTIAL OIL * BELGIUM(CULT) * 01.2-3.1% * K09698
CADINENE,GAMMA: * SESQUITERPENE * ESSENTIAL OIL * BELGIUM(CULT) * 00.9-2.7% * K09698
CARYOPHYLLENE,BETA: * SESQUITERPENE * ESSENTIAL OIL * BELGIUM(CULT) * 09.2-18.6% * K09698
CARYOPHYLLENE,BETA: OXIDE * SESQUITERPENE * ESSENTIAL OIL * BELGIUM(CULT) * 00.2-2.8% * K09698
HUMULENE OXIDE,ALPHA: * SESQUITERPENE * ESSENTIAL OIL * BELGIUM(CULT) * 00.4-5.9% * K09698
HUMULENE,ALPHA: * SESQUITERPENE * ESSENTIAL OIL * BELGIUM(CULT) * 01.6-53.8% * K09698
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS CULTIVARS

HUMULUS LUPULUS CULTIVARS (CANNABACEAE)

- HUMULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L30237
- MYRCENE,BETA: * MONOTERPENE * ESSENTIAL OIL * BELGIUM(CULT) * 01.0-65.6% * K09698
- PICEID,CIS: * STILBENE * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L30237
- PICEID,TRANS: * STILBENE * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L30237
- RESVERATROL,TRANS: * STILBENE * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L30237
- SELINENE,ALPHA: * SESQUITERPENE * ESSENTIAL OIL * BELGIUM(CULT) * 00.8-8.5% * K09698

HUMULUS LUPULUS CV,TOMAHAWK (CANNABACEAE)

- CATECHIN,(+): * FLAVONOID * DRIED STROBILUS * YIELD NOT STATED * L30495
- CATECHIN,EPI: (-): * FLAVONOID * DRIED STROBILUS * YIELD NOT STATED * L30495
- KAEMPFEROL * FLAVONOL * DRIED STROBILUS * YIELD NOT STATED * L30495
- MYRCETIN * FLAVONOL * DRIED STROBILUS * YIELD NOT STATED * L30495
- PICEID,CIS: * STILBENE * DRIED STROBILUS * YIELD NOT STATED * L30495
- PICEID,TRANS: * STILBENE * DRIED STROBILUS * YIELD NOT STATED * L30495
- QUERCETIN * FLAVONOL * DRIED STROBILUS * YIELD NOT STATED * L30495
- RESVERATROL,TRANS: * STILBENE * DRIED STROBILUS * YIELD NOT STATED * L30495
- RUTIN * FLAVONOL * DRIED STROBILUS * YIELD NOT STATED * L30495
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS CV. NUGGET

HUMULUS LUPULUS CV. NUGGET (CANNABACEAE)

NARINGENIN, 6-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * L27210
NARINGENIN, 8-PRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * L27210

XANTHOHUMOL, DEMETHYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * L27210

HUMULUS LUPULUS CV. AURORA (CANNABACEAE)

BERGAMOTENE, ALPHA: * SESQUITERPENE * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661
CADINENE, GAMMA: * SESQUITERPENE * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661

DEC-TRANS-4-ENOIC ACID METHYL ESTER * LIPID * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661

HUMULENE, ALPHA: * SESQUITERPENE * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661

LINALOOL * MONOTERPENE * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661
MUUROLENE, GAMMA: * SESQUITERPENE * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661
MYRCENE * MONOTERPENE * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661
NONANOIC ACID METHYL ESTER * LIPID * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661
OCTANOIC ACID METHYL ESTER * LIPID * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661
SELINENE, ALPHA: * SESQUITERPENE * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661
UNDECAN-2-ONE * ALKANE C5 OR MORE * STROBILUS ESSENT OIL * SLOVENIA * YIELD NOT STATED * L14661

HUMULUS LUPULUS CV. BULLION (CANNABACEAE)

COHUMULONE * ALICYCLIC * DRIED STROBILUS * ENGLAND * YIELD NOT STATED * A15492
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS CV.EASTWELL GOLDINGS

HUMULUS LUPULUS CV.EASTWELL GOLDINGS (CANNABACEAE)
XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * ENGLAND * YIELD NOT STATED * A15515

HUMULUS LUPULUS CV.HALLERTAU (CANNABACEAE)
HUMULONE * ALICYCLIC * FRESH STROBILUS * YIELD NOT STATED * K19075

HUMULUS LUPULUS CV.HALLERTAUER MAGNUM (CANNABACEAE)
HUMULONE * ALICYCLIC * FRESH ENTIRE PLANT * GERMANY * YIELD NOT STATED * L26193
LUPULONE * ALICYCLIC * FRESH ENTIRE PLANT * GERMANY * YIELD NOT STATED * L26193

HUMULUS LUPULUS CV.HALLERTAUER TAURUS (CANNABACEAE)
HUMULONE * ALICYCLIC * FRESH SPROUTS * GERMANY * YIELD NOT STATED * L04327

HUMULUS LUPULUS CV.HERSBRUCKER SPAET (CANNABACEAE)
AROMADENDRENE * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0098% * N17006
AROMADENDRENE EPOXIDE * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0020% * N17006
AROMADENDRENE,ALLO: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0077% * N17006
AROMADENDRENE,ALLO: EPOXIDE * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0012% * N17006
BICYCLOGERMACRENE * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0010% * N17006
BULNESENE,ALPHA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0020% * N17006
CADALENE * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0002% * N17006
CADINENE,ALPHA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0010% * N17006
CADINENE,DELTA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0060% * N17006
CADINENE,GAMMA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0060% * N17006
CADINOL,ALPHA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0015% * N17006
CADINOL,DELTA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0036% * N17006
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS CV. HERSBRUCKER SPAET

HUMULUS LUPULUS CV. HERSBRUCKER SPAET (CANNABACEAE)

CADINOL, T: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0009% * N17006
CALAMENE * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0002% * N17006

CARYOLAN-1-OL * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0005% * N17006

CARYOPHYLLENE OXIDE * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0024% * N17006

CARYOPHYLLENE, BETA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.052% * N17006

COPAENE, ALPHA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0015% * N17006
CUBEBENE, ALPHA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0005% * N17006
CUBEBENE, BETA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0005% * N17006
CUBELENOL * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0017% * N17006
CUBENOL, EPI: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0013% * N17006

ELEMENE, GAMMA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0016% * N17006
EUDESIMOL, ALPHA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0065% * N17006
EUDESIMOL, BETA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0060% * N17006
EUDESIMOL, GAMMA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0018% * N17006
FARNESENE, BETA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0035% * N17006
FARNESOL * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0017% * N17006
GERMACRENE B * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0105% * N17006
GERMACRENE D * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0015% * N17006
### PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS CV.HERSBRUCKER SPAET

**HUMULUS LUPULUS CV.HERSBRUCKER SPAET (CANNABACEAE)**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Type</th>
<th>Source</th>
<th>Concentration</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLOBULOL</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0027%</td>
<td>N17006</td>
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<tr>
<td>GLOBULOL,EPI</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0005%</td>
<td>N17006</td>
</tr>
<tr>
<td>GUAINE,ALPHA</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0016%</td>
<td>N17006</td>
</tr>
<tr>
<td>GURJUNENE,ALPHA</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0011%</td>
<td>N17006</td>
</tr>
<tr>
<td>HUMULENE</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.12%</td>
<td>N17006</td>
</tr>
<tr>
<td>HUMULENE EPOXIDE I</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0007%</td>
<td>N17006</td>
</tr>
<tr>
<td>HUMULENE EPOXIDE II</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0071%</td>
<td>N17006</td>
</tr>
<tr>
<td>HUMULENOL II</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0015%</td>
<td>N17006</td>
</tr>
<tr>
<td>JUNIPER CAMPHOR</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0013%</td>
<td>N17006</td>
</tr>
<tr>
<td>LEDOL</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0008%</td>
<td>N17006</td>
</tr>
<tr>
<td>MUUROLENE,ALPHA</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0035%</td>
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<tr>
<td>MUUROLENE,GAMMA</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0017%</td>
<td>N17006</td>
</tr>
<tr>
<td>PALUSTROL</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0007%</td>
<td>N17006</td>
</tr>
<tr>
<td>SELIN-11-EN-4-OL</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0029%</td>
<td>N17006</td>
</tr>
<tr>
<td>SELINA-3-7-DIENE</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0195%</td>
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<tr>
<td>SELINA-4-7-DIENE</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.0145%</td>
<td>N17006</td>
</tr>
<tr>
<td>SELINE,ALPHA</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.017%</td>
<td>N17006</td>
</tr>
<tr>
<td>SELINE,BETA</td>
<td>SESQUITERPENE</td>
<td>DRIED FRUIT</td>
<td>0.015%</td>
<td>N17006</td>
</tr>
</tbody>
</table>

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PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS CV. HERSBRUCKER SPAET

HUMULUS LUPULUS CV. HERSBRUCKER SPAET (CANNABACEAE)

SELENIENE, BETA: EPoxide I * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0002% * N17006
SELENIENE, DELTA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0055% * N17006

SPATHULENOL * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0010% * N17006

VIRIDIFLORENE * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.006% * N17006

VIRIDIFLOROL * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0016% * N17006

YLANGENE, ALPHA: * SESQUITERPENE * DRIED FRUIT * GERMANY * 0.0005% * N17006

HUMULUS LUPULUS CV. KENT FUGGIE (CANNABACEAE)

ADIPIC ACID, ALPHA-AMINO: * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

ALANINE, ALPHA: * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

ALANINE, BETA: * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

ALANINE, PHENYL: * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

ARGININE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

ASPARAGINE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

ASPARTIC ACID * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

BUTYRIC ACID, GAMMA-AMINO: * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

CYSTINE * QUINOLIZIDINE ALKALOID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

GLUTAMIC ACID, GAMMA-METHYLENE: * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

GLUTAMINE, GAMMA-METHYLENE: * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS CV.KENT FUGGIE

HUMULUS LUPULUS CV.KENT FUGGIE (CANNABACEAE)

HISTIDINE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
LEUCINE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
LEUCINE,ISO: * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
LYSINE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
PIPECOLIC ACID * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
PROLINE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
SERINE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
THREONINE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
TRYPTOPHAN * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
TYROSINE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517
VALINE * PROTEID * FRESH STROBILUS * ENGLAND * YIELD NOT STATED * A15517

HUMULUS LUPULUS CV.NUGGET (CANNABACEAE)

BENZALDEHYDE,4-HYDROXY: * BENZENOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
COHUMULINONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
DAUCOSTEROL * STEROID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
HUMULINONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
NARINGENIN,6-8-DIPRENYL: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS CV. NUGGET

HUMULUS LUPULUS CV. NUGGET (CANNABACEAE)

NARINGENIN, 6-PRENYL: (DL): * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
NARINGENIN, 8-PRENYL: (DL): * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H32670

XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670

XANTHOHUMOL B * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670

XANTHOHUMOL B, DEMETHYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670

XANTHOHUMOL C * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670

XANTHOHUMOL C, 1''-2''-DIHYDRO: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL D * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL G * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL H * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL I * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL J, DEMETHYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL, 5''-PRENYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL, ALPHA-BETA-DIHYDRO: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL, DEMETHYL: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL, ISO: * FLAVANONE * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
XANTHOHUMOL, TRANS: 5''-HYDROXY: * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * H32670
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS CV.SHINSHU-NASE

HUMULUS LUPULUS CV.SHINSHU-NASE (CANNABACEAE)

CHALCONE, 2'-4-DIHYDROXY-3'-(ISO-PRENYL)-4'-6-DI METHOXY: * FLAVONOID * FROZEN STROBILUS * JAPAN * 00.00275% * H08832
CHALCONE, 4'-4'-DIHYDROXY-2'-6-DI METHOXY: * FLAVONOID * FROZEN STROBILUS * JAPAN * 00.0075% * H08832

XANTHOHUMOL * FLAVONOID * FROZEN STROBILUS * JAPAN * 00.0015% * H08832

XANTHOHUMOL, ISO: * FLAVANONE * FROZEN STROBILUS * JAPAN * 00.18375% * H08832

HUMULUS LUPULUS CV.WILLIAMETTTE (CANNABACEAE)

PROANTHOCYANIDINS * FLAVONOID * DRIED STROBILUS * USA * YIELD NOT STATED * L24067

HUMULUS LUPULUS CV.WYE NORTHDOWN (CANNABACEAE)

PHENYL-(4'-HYDROXY)-N-NONANE, 1: * BENZENOID * FREEZE-DRIED SUSPENSION CULTURE * NETHERLANDS * 00.00682% * M25923

HUMULUS LUPULUS CV.WYE TARGET (CANNABACEAE)

CADINENE, DELTA: * SESQUITERPENE * ESSENTIAL OIL * NETHERLANDS * YIELD NOT STATED * K19321
CADINENE, GAMMA: * SESQUITERPENE * ESSENTIAL OIL * NETHERLANDS * YIELD NOT STATED * K19321
CARYOPHYLLENE, BETA: * SESQUITERPENE * ESSENTIAL OIL * NETHERLANDS * YIELD NOT STATED * K19321
CARYOPHYLLENE, BETA: OXIDE * SESQUITERPENE * ESSENTIAL OIL * NETHERLANDS * YIELD NOT STATED * K19321
HUMULENE OXIDE, ALPHA: * SESQUITERPENE * ESSENTIAL OIL * NETHERLANDS * YIELD NOT STATED * K19321
HUMULENE, ALPHA: * SESQUITERPENE * ESSENTIAL OIL * NETHERLANDS * YIELD NOT STATED * K19321
MYRCENE, BETA: * MONOTERPENE * ESSENTIAL OIL * NETHERLANDS * YIELD NOT STATED * K19321
SE LINENE, ALPHA: * SESQUITERPENE * ESSENTIAL OIL * NETHERLANDS * YIELD NOT STATED * K19321

HUMULUS LUPULUS SEX FEMALE (CANNABACEAE)

CATECHIN(4-BETA-8)-CATECHIN(4-ALPHA-8)-CATECHIN, EPI: (-): * FLAVONOID * DRIED INFLORESCENCE * USA * YIELD NOT STATED * L19987
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS SEX FEMALE

HUMULUS LUPULUS SEX FEMALE (CANNABACEAE)

CATECHIN,(+): * FLAVONOID * DRIED INFLORESCENCE * USA * YIELD NOT STATED * L19987
CATECHIN,EPI: (-): * FLAVONOID * DRIED INFLORESCENCE * USA * YIELD NOT STATED * L19987

HUMULONE * ALICYCLIC * DRIED INFLORESCENCE * JAPAN * YIELD NOT STATED * L13887

LUPULIN * STRUCTURE UNKNOWN * DRIED INFLORESCENCE * AUSTRALIA * YIELD NOT STATED * K12315

LUPULONE * ALICYCLIC * DRIED INFLORESCENCE * JAPAN * YIELD NOT STATED * L13887

PROCYANIDIN B-1 * FLAVONOID * DRIED INFLORESCENCE * USA * YIELD NOT STATED * L19987

PROCYANIDIN B-2 * FLAVONOID * DRIED INFLORESCENCE * USA * YIELD NOT STATED * L19987

PROCYANIDIN B-3 * FLAVONOID * DRIED INFLORESCENCE * USA * YIELD NOT STATED * L19987

PROCYANIDIN B-4 * FLAVONOID * DRIED INFLORESCENCE * USA * YIELD NOT STATED * L19987

HUMULUS LUPULUS SEX MALE (CANNABACEAE)

CAMPESTEROL * STEROID * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897
ERGOSTAN-3-ONE,5-ALPHA: * STEROID * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897
FRIEDELIN * TRITERPENE * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897
HEDERAGENIN * TRITERPENE * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897
MASLINIC ACID * TRITERPENE * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS SEX MALE

HUMULUS LUPULUS SEX MALE (CANNABACEAE)

MASLINIC ACID, 3-EPI: * TRITERPENE * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897
OLEANOLIC ACID * TRITERPENE * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897

SITOSTEROL, BETA: * STEROID * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897

STIGMAST-22-EN-3-ONE, 5-ALPHA: * STEROID * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897
STIGMASTAN-3-ONE, 5-ALPHA: * STEROID * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897
STIGMASTEROL * STEROID * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897

URSOLIC ACID * TRITERPENE * CALLUS DERIVED FROM STEM * JAPAN * YIELD NOT STATED * N11897

HUMULUS LUPULUS VAR. BULLION (CANNABACEAE)

BUT-2-EN-1-AL, 3-METHYL: * ALKANAL TO C4 * DRIED INFLORESCENCE * ENGLAND * YIELD NOT STATED * A13856
BUT-2-EN-1-OL, 3-METHYL: * MONOTERPENE * DRIED INFLORESCENCE * ENGLAND * YIELD NOT STATED * A13856
BUT-3-EN-2-OL, 2-METHYL: * ALKANOL TO C4 * DRIED INFLORESCENCE * ENGLAND * YIELD NOT STATED * A13856
BUTAN-1-OL, 3-METHYL: * ALKANOL TO C4 * DRIED INFLORESCENCE * ENGLAND * YIELD NOT STATED * A13856
BUTAN-2-ONE, 3-METHYL: * ALKANONE TO C4 * DRIED INFLORESCENCE * ENGLAND * YIELD NOT STATED * A13856
BUTANOIC ACID, 3-METHYL: * ALKANE TO C4 * DRIED INFLORESCENCE * ENGLAND * YIELD NOT STATED * A13856
FURAN, 2-5-DIHYDRO: 2-2-DIMETHYL-5-OXO: * MISC LACTONE * DRIED INFLORESCENCE * ENGLAND * YIELD NOT STATED * A13856
PROPAN-1-OL, 2-METHYL: * ALKANOL TO C4 * DRIED INFLORESCENCE * ENGLAND * YIELD NOT STATED * A13856
PROPANOIC ACID, 2-METHYL: * ALKANE TO C4 * DRIED INFLORESCENCE * ENGLAND * YIELD NOT STATED * A13856
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS VAR.CORDIFOLIUS

HUMULUS LUPULUS VAR.CORDIFOLIUS (CANNABACEAE)

RUTIN * FLAVONOL * LEAF * JAPAN * 00.20% * A06464

HUMULUS LUPULUS VAR.HALLERTAUER PERLE (CANNABACEAE)

PHLOROGLUCINYL,5-[(2-METHYL-BUTYRYL): * BENZENOID * DRIED STROBILUS * GERMANY * YIELD NOT STATED * H34568

PHLOROGLUCINYL]-BETA-D-GLUCOPYRANOSIDE,1-[(2-METHYL-PROPANOYL): * BENZENOID * DRIED STROBILUS * GERMANY * YIELD NOT STATED * H34568

PHLOROGLUCINYL]-BETA-D-GLUCOPYRANOSIDE,1-[(3-METHYL-BUTYRYL): * BENZENOID * DRIED STROBILUS * GERMANY * YIELD NOT STATED * H34568

PHLOROGLUCINYL]-BETA-D-GLUCOPYRANOSIDE,1-[(2-METHYL-BUTYRYL): * BENZENOID * DRIED STROBILUS * GERMANY * YIELD NOT STATED * H34568

HUMULUS LUPULUS VAR.LUPULOIDES (CANNABACEAE)

COHUMULONE * ALICYCLIC * DRIED STROBILUS * USA * YIELD NOT STATED * L22440

HUMULUS LUPULUS VAR.SAAZERE X ZATTLER (CANNABACEAE)

CHALCONE,3'-GERANYL: 2'-4'-6'-TETRAHYDROXY: * FLAVONOID * OVEN DRIED INFLORESCENCE * EUROPE(CULT) * 00.00255 * H20901

CHALCONE,3'-PRENYL: 2'-4'-6'-TETRAHYDROXY: * FLAVONOID * OVEN DRIED INFLORESCENCE * EUROPE(CULT) * 00.00192% * H20901

NARINGENIN,6-PRENYL: * FLAVANONE * OVEN DRIED INFLORESCENCE * EUROPE(CULT) * YIELD NOT STATED * H20901

NARINGENIN,8-PRENYL: * FLAVANONE * OVEN DRIED INFLORESCENCE * EUROPE(CULT) * YIELD NOT STATED * H20901

XANTHOHUMOL * FLAVONOID * OVEN DRIED INFLORESCENCE * EUROPE(CULT) * 00.086535 * H20901

XANTHOHUMOL,DEHYDRO-CYCLO: * FLAVONOID * OVEN DRIED INFLORESCENCE * EUROPE(CULT) * 00.00028% * H20901

XANTHOHUMOL,ISO: * FLAVANONE * OVEN DRIED INFLORESCENCE * EUROPE(CULT) * YIELD NOT STATED * H20901

HUMULUS LUPULUS VAR.SPALTER (CANNABACEAE)

XANTHOHUMOL HYDRATE,DEHYDRO-CYCLO: * FLAVONOID * OVEN DRIED INFLORESCENCE * EUROPE(CULT) * 00.00233% * H20901
PRESENCE OF COMPOUNDS IN HUMULUS LUPULUS VAR.SPALTER

HUMULUS LUPULUS VAR.SPALTER (CANNABACEAE)
XANTHOHUMOL,5'-PRENYL: * FLAVONOID * OVEN DRIED INFLORESCENCE * EUROPE(CULT) * 00.00066% * H20901

HUMULUS LUPULUS VARIETIES (CANNABACEAE)
ADHUMULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L25068
ADLUPULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L25068

COHUMULONE * ALICYCLIC * STROBILUS * CHINA * YIELD NOT STATED * L11964

COLUPULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L25068

COLUPULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L25068

HUMULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L25068
LUPULONE * ALICYCLIC * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L25068
XANTHOHUMOL * FLAVONOID * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L25068
XANTHOHUMOL,DEMETHYL: * FLAVONOID * DRIED STROBILUS * BELGIUM * YIELD NOT STATED * L25068
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L30251  SCIENTIFIC EVIDENCE FOR A FIXED EXTRACT COMBINATION (ZE 91019) FROM VALERIAN AND HOPS TRADITIONALLY USED AS A SLEEP-INDUCING AID
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