

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals and their Biological Activities in: *Mentha pulegium* L. (Lamiaceae) -- European Pennyroyal

Chemicals

- (+)-CAMPHENE *Plant* 106 - 212 ppm
No activity reported.
- (+)-ISOISOPULEGONE *Plant* 22 - 76 ppm
No activity reported.
- (+)-ISOMENTHONE *Plant* 521 - 4,140 ppm
No activity reported.
- (+)-ISOPULEGONE *Plant*:
No activity reported.
- (+)-LIMONENE *Plant* 10 - 290 ppm
No activity reported.
- (+)-MENTHOL *Plant* 1,624 - 3,248 ppm
Antiacetylcholinesterase $IC_{50}=2\text{ mM}$
- (+)-MENTHONE *Plant* 680 - 1,360 ppm
No activity reported.
- (+)-NEOISOMENTHOL *Plant* 65 - 1,150 ppm
No activity reported.
- (+)-NEOMENTHOL *Plant* 1 - 604 ppm
No activity reported.
- (+)-OCTAN-3-OL *Plant* 149 - 416 ppm
No activity reported.
- (+)-PULEGONE *Plant* 19,400 ppm;
Antiacetylcholinesterase $IC_{50}=0.9\text{ mM}$ $IC_{50}=136\text{ ug/ml}$; Irritant ZEB; Perfumery
- 1,1,3-TRIMETHYL-CYCLOPENTAN-4-ONE *Essential Oil*:
No activity reported.
- 1,1,3-TRIMETHYL-CYCLOPENTANONE *Essential Oil*:

No activity reported.

1,8-CINEOLE *Plant 20 ppm*;

(-)-Chronotropic 87 *nl/ml*; (-)-Inotropic; Acaricide *LC100=6 uM*; Allelopathic; Allergenic; Anesthetic; Anthelmintic; Antiacetylcholinesterase *IC50=41 ug/ml*; Antiallergic; Antibacterial 50 *ppm*; Antibronchitic; Anticariogenic; Anticatarrh; Anticholinesterase *IC50=50-70*; Antifatigue; Antihalitosis; Antiinflammatory; Antilaryngitic; Antinociceptive; Antipharyngitic; Antiplaque; Antirheumatic; Antirhinitic; Antiseptic; Antisinusitic; Antispasmodic; Antistaphylococcic 50 *ppm*; Antitussive; Antiulcer; Candidicide; Carcinogenic; Choleric; CNS-Stimulant; Convulsant; Counterirritant; Cytochrome-P450-Inducer; Decongestant; Degranulant 0.3 *ul/ml*; Dentifrice; Edemagenic *inj*; Expectorant; FLavor *FEMA 1-200*; Fungicide; Gastroprotective; Gram(+)-icide; Gram(-)-icide; Hepatotonic; Herbicide *IC50=78 uM*; Hypotensive; Inflammatory *inj*; Insectifuge; Irritant; Myorelaxant; Nematicide; Neurotoxic; P450-Inducer; Pediculicide 2.3 *x pyrethrin*; Perfume; Pesticide; Rubefacient; Secretagogue; Sedative; Spasmogenic; Surfactant; Testosterone-Hydroxylase-Inducer; Transdermal; Trichomonicide *LD100=1,000 ug/ml*

1-METHYL-CYCLOHEX-1-EN-3-ONE *Essential Oil*:

No activity reported.

1-METHYL-CYCLOHEX-1-ONE *Essential Oil*:

No activity reported.

1-METHYL-CYCLOHEXAN-3-OL *Essential Oil*:

No activity reported.

1-METHYL-CYCLOHEXAN-3-ONE *Essential Oil 80 - 160 ppm*

No activity reported.

1-METHYL-CYCLOHEXANOL *Essential Oil*:

No activity reported.

3-METHYL-CYCLOHEXAN-1-OL *Essential Oil*:

No activity reported.

3-METHYL-CYCLOHEXANONE *Plant 70 - 140 ppm*

No activity reported.

3-OCTYL-ACETATE *Plant 10 - 80 ppm*

No activity reported.

ACETIC-ACID *Essential Oil*:

Acidulant; Antibacterial 5,000 *ppm*; Antiotitic; Antisalmonella; Antivaginitic 1-2%; Expectorant; Fungicide; Keratitogenic; Mucolytic; Osteolytic; Perfumery *FEMA 6,000-40,000 ppm*; Pesticide; Protisticide; Spermicide; Ulcerogenic; Verrucolytic

ALPHA-HUMULENE *Plant 70 - 140 ppm*

Antitumor; Perfumery

ALPHA-PHELLANDRENE *Plant 30 - 60 ppm*

Antibacterial; Antistaphylococcic; Dermal; Emetic; FLavor *FEMA 10-130*; Fungicide;

Insectiphile; Irritant; Laxative; Perfumery; Pesticide

ALPHA-PINENE *Plant* 20 - 520 ppm

Allelochemic; Allergenic; Antiacne; Antibacterial; Antifeedant; Antiflu;
Antiinflammatory 500 mg/kg; Antipneumonic; Antiseptic; Antispasmodic;
Antistaphylococcic; Antiviral; Cancer-Preventive; Coleoptophile; Expectorant; FLavor
FEMA 15-150; Herbicide $IC_{50}=30\ \mu M$; Insecticide 0.82 μM /fly; Insectifuge 50 ppm;
Insectiphile; Irritant; P450-2B1-Inhibitor $IC_{50}=0.087\ \mu M$; Perfumery; Pesticide;
Sedative; Spasmogenic; Tranquilizer; Transdermal

ALPHA-TERPINENE *Plant* 20 ppm;

Acaricide; ACE-Inhibitor 100 $\mu g/ml$ (weak activity); Aldose-Reductase-Inhibitor 100
 $\mu g/ml$; Antiacetylcholinesterase $IC_{50}=1.0\ mM$; Antinitrosaminic; Antispasmodic;
FLavor *FEMA* 1-40; Insecticide 0.86 μM /fly; Insectifuge; P450-2B1-Inhibitor
 $IC_{50}=0.76\ \mu M$; Perfumery; Pesticide; Spasmogenic

ALPHA-TERPINEOL *Plant* 70 - 140 ppm

ACE-Inhibitor 100 $\mu g/ml$ (weak activity); Aldose-Reductase-Inhibitor 100 $\mu g/ml$;
Allelopathic; Antiacne; Antibacterial $MIC=800-1,600\ \mu g/ml$; Anticancer;
Anticariogenic; Antiinflammatory; Antiproliferant; Antiseptic; Cicatrizant $ED_{50}=240$
 $\mu g/g\ mus$; FLavor *FEMA* 5-40; Insecticide 1.29 μM /fly; Interleukin-6-Inhibitor;
Mosquitofuge > *Deet*; Motor-Depressant; Nematicide $MLC=1\ mg/ml$; Perfumery;
Pesticide; Sedative; Termiticide $IC_{100}=5\ mg/g$; Transdermal; Vulnerary $ED_{50}=240$
 $\mu g/g\ mus$

AROMADENDRENE *Plant*:

Antiseptic; Cancer-Preventive; Pesticide

BETA-BOURBONENE *Plant* 15 - 30 ppm

No activity reported.

BETA-CARYOPHYLLENE *Plant*:

No activity reported.

BETA-FENCHENE *Plant* 1 - 6 ppm

No activity reported.

BETA-HUMULENE *Plant*:

No activity reported.

BETA-METHYL-ADIPIC-ACID *Essential Oil*:

No activity reported.

BETA-METHYL-DELTA-ISOBUTYLVALERIC-ACID *Plant*:

No activity reported.

BETA-PHELLANDRENE *Plant* 3 - 400 ppm

Expectorant; Fungicide; Perfumery

BETA-PINENE *Plant* 20 - 288 ppm

Allergenic; Antiinflammatory; Antiseptic; Antispasmodic; Candidicide; FLavor *FEMA*
15-600; Herbicide; Insectifuge; Irritant; Perfumery; Pesticide; Spasmogenic;

Transdermal

CADINENE Plant 87 - 174 ppm

Antifeedant; FLavor *FEMA 400-4,000*; Perfumery; Pesticide

CAMPHENE Plant 1 - 70 ppm

Allelopathic; Antilithic?; Antioxidant; Expectorant; FLavor *FEMA 15-175*;
Hypocholesterolemic?; Insectifuge; Pesticide; Spasmogenic

CARVACROL Plant 100 - 400 ppm

Allergenic; Anesthetic; Anthelmintic; Antialzheimeran?; Antiatherosclerotic *IC50=5.53 uM*; Antibacterial *MIC 170-290 MIC=39-625*; Anticholinesterase?; Antidiuretic; Antiinflammatory *IC50=4 uM*; Antimelanomic *IC50=120 uM/l*; Antioxidant; Antioxidant (LDL) *IC50=5.53 uM*; Antiplateau *MIC=39-625 ug/ml*; Antiprostaglandin; Antiradicular *600 x thymol*; Antiseptic *1.5 x phenol*; Antispasmodic; Antistaphylococcic; Antistreptococcic; Antitussive; Candidicide *100-150 ug/ml MIC<0.1 ug/ml*; Carminative; Cyclooxygenase-Inhibitor =*indomethacin*; Enterorelaxant; Expectorant; FLavor *FEMA 10-125*; Fungicide; Insectifuge; Irritant; Nematicide *MLC=1 mg/ml*; Pesticide; Prostaglandin-Inhibitor; Tracheorelaxant; Trichomonicide *LD100=150 ug/ml*; Vermifuge

CARVONE Essential Oil:

Allergenic; Antiacetylcholinesterase *IC50=1.4-1.8 mM*; Antiproliferative; Antiseptic *1.5 x phenol*; Cancer-Preventive; Candidistat; Carminative; CNS-Stimulant; FLavor *FEMA 80-3,000*; Fungistat; Insecticide; Insectifuge; Motor-Depressant; Nematicide *MLC=1 mg/ml*; Perfumery; Pesticide; Sedative; Trichomonicide *LD100=300 ug/ml*; Vermicide

CARYOPHYLLENE Plant 10 - 60 ppm

Aldose-Reductase-Inhibitor; Allergenic; Analgesic; Antiacne; Antiasthmatic; Antibacterial; Anticariogenic *MIC=>1,600 ug/ml*; Antidermatitic; Antiedemic; Antifeedant *500 ppm*; Antiinflammatory *IC50=100 uM*; Antileishmanic; Antionychotic; Antiproliferant; Antispasmodic; Antistaphylococcic; Antistreptococcic; Antitumor; Antiulcer; Candidicide; FLavor *FEMA 20-200*; Fungicide; Gastroprotective; Insectifuge; Irritant; Larvicide; Mosquitocide; Perfumery; Pesticide; Sedative; Termitifuge

CINEOLE Plant 2 - 600 ppm

No activity reported.

CIS-ISOPULEGONE Plant 20 - 120 ppm

No activity reported.

CIS-PULEGONE-OXIDE Plant:

No activity reported.

CITRONELLOL Plant 90 - 180 ppm

Allergenic; Antibacterial; Antiseptic; Antistaphylococcic; Antistreptococcic; Candidicide; FLavor *FEMA 1-50*; Fungicide; Herbicide *IC50=160 uM*; Irritant; Nematicide *MLC=100 ug/ml*; Perfumery; Pesticide; Sedative; Trichomonicide *LD100=300 ug/ml*

CYMOL *Plant* 160 - 320 ppm

No activity reported.

DECYLIC-ACID *Essential Oil*:

No activity reported.

DEHYDROMENTHOFURAN-OXIDE *Plant*:

No activity reported.

DEHYDROXYMENTHOFURAN-OXIDE *Plant*:

No activity reported.

DELTA-ISOBUTYRL-VALERIC-ACID-BETA-MENTHOL *Plant*:

No activity reported.

DELTA-MENTHENONE *Essential Oil*:

No activity reported.

DIOSMIN *Leaf*:

Anticancer; Anticapillary-Fragility 300 mg/2x/day/woman; Anticarcinogenic; Anticlastogen; AntiCVI; Anticytotoxic; Antiedemic 50-200 mg/kg/day 600 mg/kg rat; Antihemorrhoidal 450 mg 2x/day x7days then 1x/day x2months; Antihistaminic; Antiinflammatory 600 mg/kg rat; Antileukotriene; Antimelanomic; Antimetastatic; Antimetrorrhagic; Antioxidant; Antiperoxidant; Antiproliferant; Antiprostaglandin; Antiradicular; Antithromboxane; Antiulcer; Chemopreventive; COMT-Inhibitor 200-400 mg/kg ip; Cyclooxygenase-Inhibitor; Cytoprotective; Diuretic; Hypoglycemic; Lipoxygenase-Inhibitor; MDR-Inhibitor 100 uM; P450-Inhibitor; Radioprotective; Venoprotective; Venotonic

DIPENTENE *Plant*:

Allergenic; Antibacterial; Antiviral; Expectorant; Irritant; Pesticide; Sedative

EUGENOL *Plant* 160 - 320 ppm

Acaricide LD50=5.47 ug/sq cm cf DEET at 37.59 ug/sq cm; Allergenic; Analgesic; Anesthetic 200-400; Antiaggregant IC50=0.3 uM; Antiarachidonate; Antibacterial 500 ppm MBC=400 ug/ml; Anticonvulsant; Antiedemic 100; Antiestrogenic; Antifeedant; Antigenotoxic 50-500 mg/kg orl mus; Antiherpetic IC50=16.2-25.6 ug/ml; Antiinflammatory (11 uM) IC~97=1,000 uM; Antikeratotic IC50=16.2-25.6 ug/ml; Antimitotic; Antimutagenic; Antinitrosating; Antioxidant 10 uM IC65=30 ppm; Antiprostaglandin 11 uM IC50=9.2 mM; Antipyretic 3 ml/man/day; Antiradicular EC50=2 ul/l; Antisalmonella MIC=400 ug/ml; Antiseptic 3 ml/man/day 400 ug/ml; Antispasmodic; Antistaphylococcic; Antithromboxane; AntiTNF; Antitumor; Antiulcer; Antiviral IC50=16.2-25.6 ug/ml; Apifuge; Calcium-Antagonist IC50=200 uM gpg IC50=224 uM; Cancer-Preventive; Candidicide; Carcinogenic?; Carminative; Choleric; CNS-Depressant; COX-1-Inhibitor IC97=1,000 uM; COX-2-Inhibitor IC50=129 uM IC>97=1,000 uM; Cytochrome-P450-Inhibitor; Cytotoxic 25 ug/ml; Dermatitigenic; Enterorelaxant; FLavor FEMA 10-500; Fungicide; Hepatoprotective 100 ppm; Herbicide; Insecticide; Insectifuge; Irritant; Juvabional; Larvicide; Motor-Depressant; Nematicide MLC=2,000 ug/ml; Neurotoxic; Perfumery; Pesticide; Prostaglandin-Synthesis-Inhibitor 1 mM rbt IC50=9.2 uM; Sedative; Termiticide LD100=5 mg/g; Trichomonicide LD100=300 ug/ml; Trichomonistat IC50=10 ug/ml; Trypsin-Enhancer; Ulcerogenic; Varroacide; Vasodilator; Vermifuge

FENCHENE *Plant* 70 - 140 ppm

No activity reported.

FENCHONE *Plant* 10 - 20 ppm

Antialzheimeran?; Anticholinesterase; Counterirritant; FLavor *FEMA* 0.1-5; Perfumery; Secretolytic

FORMIC-ACID *Essential Oil*:

Acaricide; Antiseptic; Antisyncopic; Astringent; Corrosive; Counterirritant; FLavor *FEMA* 500-2,500; Fungistat; Fungitoxic; Irritant; Pesticide; Preservative; Toxic

GAMMA-TERPINENE *Plant* 50 ppm;

Acaricide; ACE-Inhibitor 100 ug/ml (*weak activity*); Aldose-Reductase-Inhibitor 100 ug/ml; Antiacetylcholinesterase $IC_{23}=1.2\text{ mM}$; Antifeedant; Antioxidant; FLavor *FEMA* 1-40; Insectifuge; Irritant; Perfumery; Pesticide

GERMACRENE-D *Plant*:

Pesticide; Pheromone

GUAIAZULENE *Plant*:

Antiallergic; Antiinflammatory; Antileprotic; Antipeptic; Antipyretic; Antiulcer

HESPERIDIN *Plant*:

Analgesic; Anti-LDL; Antiallergenic; Antibradykinic; Anticapillary-Fragility; AntiDNA; Antiflu; Antihistaminic; Antiinflammatory $IC_{47}=50\text{ mg/kg scu}$ $IC_{63}=100\text{ mg/kg scu}$; Antileukotriene; Antioxidant $IC_{50}=8\text{ ppm}$; Antiprostaglandin; AntiRNA; Antistomatitic; Antitriglyceride; Antiulcer 100-150 mg/kg *ipr*; Antivaccinia; Antiviral; Anxiolytic; Calcium-Antagonist $IC_{50}=1.2\text{ uM rbt}$; Capillariprotective; Catabolic; Choleric; CNS-Depressant 100-150 mg/kg *ipr*; Cyclooxygenase-Inhibitor; Hypolipidemic; Lipoxygenase-Inhibitor; Pesticide; ProHDL; Vasopressor

HEXAN-1-OL *Essential Oil*:

No activity reported.

ISOHEPTYLIC-ACID *Essential Oil*:

No activity reported.

ISOMENTHOL *Plant* 1 - 10 ppm

Antiacetylcholinesterase $IC_{29}=1.2\text{ mM}$

ISOMENTHONE *Plant* 8,420 ppm;

Antiacetylcholinesterase $IC_{50}=1.6\text{ mM}$; Antioxidant; Antiradicular

ISOPIPERITENONE *Plant* 80 ppm;

No activity reported.

ISOPIPERITONE *Plant*:

No activity reported.

ISOPULEGOL *Plant* 680 - 1,360 ppm

Antiacetylcholinesterase $IC_{50}=2.0\text{ mM}$; FLavor *FEMA* 5-30; Perfumery

ISOPULEGONE Plant 65 - 2,014 ppm

FLavor FEMA 5-15; Hepatotoxic; Perfumery; Pulmonotoxic

LIMONENE Plant 10 - 2,200 ppm 41 - 148 ppm

Acaricide $LC_{100}=8\ \mu M$; AChE-Inhibitor; Allelochemic; Allergenic *1/20th carene*;
Antiacetylcholinesterase $IC_{22-26}=1.2\ mM$; Antiadenomic; Antialzheimeran?;
Antiasthmatic; Antibacterial; Anticancer; Antiesophagitic; Antifeedant; Antiflu;
Antiinflammatory; Antilithic; Antilymphomic; Antimetastatic (Stomach);
Antimutagenic; Antiobesity; Antiseptic; Antispasmodic $ED_{50}=0.197\ mg/ml$; Antitumor;
Antitumor (Breast); Antitumor (Colon); Antitumor (Pancreas); Antitumor (Prostate);
Antitumor (Stomach); Antiviral; Apoptotic; Bronchoprotectant; Cancer-Preventive;
Candidistat; Chemopreventive; Cholesterolytic; Detoxicant; Enterocontractant;
Expectorant; FLavor; Fungiphilic; Fungistat; GST-Inducer; Herbicide $IC_{50}=45\ \mu M$;
Histaminic; Immunomodulator; Insecticide $0.37\ \mu M/fly$; Insectifuge; Interleukin-6-
Inhibitor; Irritant; Lipolytic; Myorelaxant $50\ mg/kg$; Nematicide $IC=100\ \mu g/ml$; NO-
Genic; Ornithine-Decarboxylase-Inhibitor $\sim 750\ mg/kg$ (diet); Ozone-Scavenger; P450-
Inducer; Peristaltic; Pesticide; Photosensitizer; Sedative $ED=1-32\ mg/kg$; Transdermal

LINALOL Plant 15 - 30 ppm

No activity reported.

LINALOL-ACETATE Plant 10 - 820 ppm

No activity reported.

LINALOL-ISOVALERATE Plant 130 - 260 ppm

No activity reported.

MENTHENE Plant 280 - 560 ppm

No activity reported.

MENTHOFURAN Plant 1 - 160 ppm

Calcium-Antagonist $IC_{50}=441\ \mu M\ gpg$ (weak activity); Hepatotoxic; Nematicide
 $MLC=1\ mg/ml$; Pesticide; Pulmonotoxic

MENTHOFURAN-OXIDE Plant:

No activity reported.

MENTHOL Plant 1 - 3,780 ppm

Allergenic; Analgesic; Anesthetic $2,000\ ppm$; Antiacetylcholinesterase $IC_{50}=2.0\ mM$;
Antiaggregant $IC_{50}=750$; Antiallergic; Antiasthmatic; Antibacillus $MIC=1.25\ mg/ml$;
Antibacterial $MIC=0.625-2.5$; Antibronchitic; Antidandruff; Antiescherichic $MIC=1.25\ mg/ml$;
Antihalitotic; Antihistaminic; Antiinflammatory; Antilisteria $MIC=0.625\ mg/ml$;
Antineuralgic; Antiodontalgic; Antipruritic; Antipyretic; Antirheumatic; Antisalmonella;
Antiseptic *4 x phenol*; Antisinusitic; Antispasmodic $ED_{50}=0.01\ mg/ml$;
Antistaphylococcic $MIC=0.625\ mg/ml$; Antistreptococcic $MIC=0.4\ mg/ml$; Antitartar;
Antivaginitic; Antivulvitic; Bradycardic $65\ mg/3\ x\ day/woman$; Bronchomucolytic;
Bronchomucotropic; Bronchorrheic; Calcium-Antagonist; Candidicide $MIC=0.625\ mg/ml$;
Carminative; Choleric; Ciliotoxic; CNS-Depressant; CNS-Stimulant;
Congestant; Convulsant; Counterirritant; Decongestant? $11\ mg/man$; Dermatitigenic;
Diaphoretic; Enterorelaxant; Expectorant; Gastroedative; Irritant; Myorelaxant;
Nematicide $MLC=1\ mg/ml$; Neurodepressant; Neuropathogenic $40-100\ mg/day/rat$;
Nociceptive; Perfumery; Pesticide; Refrigerant; Rubefacient; Termiticide; Transdermal;

Vibriocide

MENTHOL-ACETATE *Plant*:

No activity reported.

MENTHONE *Plant* 10 - 6,160 ppm 50 - 6,160 ppm

Acaricide; Allelopathic; Analgesic; Antiacetylcholinesterase $IC_{50}=1.4\text{ mM}$; Antiaggregant $IC_{50}=750$; Antiallergic; Antibacillary $MIC=1.25\text{ mg/ml}$; Antibacterial $MIC=0.625-5\text{ mg/ml}$; Antiescherichic $MIC=5\text{ mg/ml}$; Antihistaminic; Antilisteria $MIC=1.25\text{ mg/ml}$; Antisalmonella $MIC=5\text{ mg/ml}$; Antiseptic 2.25 x phenol ; Antispasmodic $ED_{50}=0.044\text{ mg/ml}$; Antistaphylococcic $MIC=0.625-2.5\text{ mg/ml}$; Cancer-Preventive; Candidicide $MIC=2.5\text{ mg/ml}$; Cerebrotoxic *orl man*; Culicide $LC_{50}=156-194\text{ mg/l}$; FLavor *FEMA* 5-50; Fungicide; Insecticide $LC_{50}=156-194\text{ mg/l}$; Larvicide; Mutagenic; Nematicide $MLC=1\text{ mg/ml}$; Perfumery; Pesticide; Psychoactive; Sedative; Trichomonicide $LD_{100}=600\text{ ug/ml}$

MYRCENE *Plant* 27 - 600 ppm

ACE-Inhibitor 100 ug/ml ; Aldose-Reductase-Inhibitor; Allergenic; Analgesic; Antibacterial; Anticonvulsant; Antimutagenic; Antinitrosaminic; Antinociceptive $10-20\text{ mg/kg ipr mus } 20-40\text{ mg/kg scu mus}$; Antioxidant; Antispasmodic; Chemopreventive; FLavor *FEMA* 0.5-9; Fungicide; Hypothermic; Insectifuge; Irritant; Myorelaxant $100-200\text{ mg/kg}$; P450-2B1-Inhibitor $IC_{50}=0.14\text{ uM}$; Perfumery; Pesticide

NEO-ISOPULEGOL *Plant*:

No activity reported.

NEOISOMENTHOL *Plant* 30 - 1,160 ppm

No activity reported.

NEOISOMENTHOL-ACETATE *Plant* 30 - 286 ppm

No activity reported.

NEOMENTHOL *Plant* 1 - 3,880 ppm

Antispasmodic $ED_{50}=0.033\text{ mg/ml}$; Perfumery

NEPETALACTONE *Plant*:

Feliphile; Herbicide; Insectifuge; Pesticide; Sedative

NEROL *Plant* 10 - 20 ppm

Antibacterial; Antiseptic; FLavor *FEMA* 1-20; Perfumery; Pesticide; Sedative; Trichomonicide $ED_{100}=300\text{ ug/ml}$

O-CRESOL *Essential Oil*:

Allelochemic $IC_{50}=0.36\text{ mM}$; Antimutagenic; Antiseptic; Cancer-Preventive; Pesticide; Rodenticide $LD_{50}=620\text{ cut rat}$

OCIMENE *Plant* 25 - 50 ppm

Insecticide; Perfumery

OCT-1-EN-3-OL *Essential Oil*:

No activity reported.

OCT-3-EN-1-OL *Essential Oil:*

No activity reported.

OCTAN-1-OL *Essential Oil:*

No activity reported.

OCTAN-1-OL-ACETATE *Essential Oil:*

No activity reported.

OCTAN-3-OL *Plant 20 - 440 ppm*

No activity reported.

OCTAN-3-OL-ACETATE *Plant 12 - 160 ppm*

No activity reported.

OCTAN-3-ONE *Essential Oil:*

No activity reported.

OCTEN-1-OL *Essential Oil:*

No activity reported.

OCTOIC-ACID *Essential Oil:*

No activity reported.

OCTYLIC-ACID *Essential Oil:*

No activity reported.

P-CRESOL *Essential Oil:*

Allelochemic $IC_{50}=1.13$ mM; Antimutagenic; Antiseptic; Cancer-Preventive; FLavor $FEMA <1$; Parasiticide; Pesticide; Rodenticide $LD_{50}=1,100$ cut rat

P-CYMENE *Plant 3 - 610 ppm*

Analgesic; Antiacetylcholinesterase $IC_{40}=1.2$ mM; Antibacillary; Antibacterial; Antiflu; Antirheumatalgic; Antiviral; FLavor $FEMA$ 12-250; Fungicide; Herbicide $IC_{50}=50$ μM ; Insectifuge; Irritant; Laxative; Pesticide; Sedative; Trichomonicide $LD_{100}=50$ $\mu g/ml$

P-CYMOL *Plant 30 - 60 ppm*

No activity reported.

P-MENTHA-1,4(8)-DIENE *Plant:*

No activity reported.

P-MENTHANE *Plant 40 - 80 ppm*

No activity reported.

PHENOL *Essential Oil:*

Analgesic; Anesthetic; Antibacterial; Antihemorrhoidal; Antihydrocoele; Antiincontinence; AntiMS; Antionychogryphotic; Antiotitic; Antioxidant; Antiprostaitic; Antipyruvetic; Antiseptic; Antisinusitic; Antispastic; Antiviral; Antiwrinkle; Cancer-Preventive; Carcinogenic; CNS-Depressant; Emetic; Fungicide; Hemolytic 5,400 ppm; Pesticide; Rodenticide $LD_{50}=1,040$ cut rat; Vasodilator

PIPERITENOL *Plant* 100 - 200 ppm

No activity reported.

PIPERITENONE *Plant* 30 - 4,800 ppm

Antiacetylcholinesterase $IC_{50}=110\text{ ug/ml}$; Perfumery; Toxic 10,000/man

PIPERITOL *Plant* 10 - 20 ppm

No activity reported.

PIPERITOL-ACETATE *Plant* 100 - 200 ppm

No activity reported.

PIPERITONE *Plant* 9 - 11,000 ppm

Antiasthmatic; FLavor *FEMA* 1-2; Herbicide $IC_{50}=30\text{ mM}$ $IC_{50}=75\text{ uM}$; Insectifuge (> *DEET*); Perfumery; Pesticide

PIPERTENONE *Plant* 33 - 66 ppm

No activity reported.

PULEGOL *Plant* 400 - 800 ppm

No activity reported.

PULEGONE *Plant* 520 - 18,800 ppm

AChE-Inhibitor; Antiacetylcholinesterase $IC_{50}=0.9\text{ mM}$ $IC_{50}=136\text{ ug/ml}$; Antialzheimeran?; Antibacterial; Anticholinesterase; Antihistaminic; Antipyretic; Avifuge; Cancer-Preventive; Candidicide; Cerebrotoxic *orl man*; Encephalopathic 80 mg/kg *orl rat*; FLavor *FEMA* 5-30; Fungicide; Glutathionalytic; Hallucinogenic; Hepatotoxic; Herbicide $IC_{50}=1.5\text{ uM}$; Insecticide; Insectifuge; Nephrotoxic; Neurotoxic; Perfumery; Pesticide; Pulifuge; Pulmonotoxic; Sedative

PULEGONE-EPOXIDE *Plant*:

No activity reported.

ROSMARINIC-ACID *Plant* 30,000 ppm;

ABeta-Inhibitor; Adenylate-Cyclase-Inhibitor; Aldose-Reductase-Inhibitor; Antiaggregant; Antiallergic; Antialzheimeran; Antianaphylactic 1-100 mg/kg *orl* $ID_{50}=1\text{ mg/kg}$ *ivn rat* $ID_{50}=10\text{ mg/kg}$ *ims rat*; Antiatherosclerotic $IC_{50}=0.74\text{ uM}$; Antibacterial; Anticoagulant; Anticomplementary 1/2 *aspirin* 20 mg/kg *ivn*; Antidepressant; Antiedemic 0.316-3.16 mg/kg *ims*; Antigonadotropic; Antihemolytic $IC_{70}=5-10\text{ um/l}$; Antihepatotoxic; Antiherpetic 50 ug/ml $EC_{50}=20\text{ ug/ml}$; AntiHIV $EC_{50}=40\text{ ug/ml}$; Antihyperthyroid; Antiinflammatory $IC_{58}=1,000\text{ uM}$; Antiintegrase 10 ug/ml; Antileukotriene; Antilipoperoxidant; Antimutagenic; Antinephritic; Antioxidant 10 uM $EC_{50}=2.7\text{ ug/ml}$; Antioxidant (LDL) $IC_{50}=0.74\text{ uM}$; Antiplaque; Antiproliferant; Antiprostaglandin 20 mg/kg *ivn*; Antiproteolytic $IC_{50}=0.9\text{ mol l}$; Antipulmonotic; Antiradicular; Antishock; Antithyreotropic; Antithyroid; Antiuremic; Antiviral $EC_{50}=40\text{ ug/ml}$; Anxiolytic; Apoptotic; Calcium-Antagonist $IC_{50}=1.2\text{ uM}$ *rbt*; Cancer-Preventive; COX-1-Inhibitor $IC_{58}=1,000\text{ uM}$; COX-2-Inhibitor $IC_{58}=1,000\text{ uM}$; Cytotoxic $TC_{50}=100-150\text{ ug/ml}$; Deiodinase-Inhibitor; Immunomodulator; Immunostimulant; Lipoxigenase-Inhibitor; Neuroprotective; Pesticide; Radioprotective

SABINENE *Plant* 8 - 140 ppm

Antibacterial; Antihelicobacter; Antiseptic; Antiulcer; Perfumery

SALICYLALDEHYDE *Essential Oil:*

Allelochemic $IC_{50}=0.51\text{ mM}$; FLavor *FEMA 0.5-20*; Perfumery; Pesticide; Sprout-Inhibitor

SALICYLIC-ACID *Essential Oil:*

Aldose-Reductase-Inhibitor $724.6\text{ }\mu\text{M}$; Analgesic; Antiarthritic; Antibacterial; Antidandruff; Antidermatotic; Antieczemic; Antiichthyosic; Antiinflammatory; Antineuralgic; Antionychomycotic; Antioxidant; Antiperiodic; Antipodagric; Antipsoriatic; Antipyretic; Antirheumatic; Antiseborrheic; Antiseptic; Antitumor; Antitympanic; Cancer-Preventive; Comedolytic; COX-2-Inhibitor; Cyclooxygenase-Inhibitor; Dermatitogenic; Fungicide $MIC\ 1,000\text{ }\mu\text{g/ml}$; Hypoglycemic; Insectifuge; Keratolytic; Pesticide; Thermogenic 130 ppm ; Tineacide; Ulcerogenic

SALICYLIC-ACID-METHYL-ESTER *Essential Oil:*

No activity reported.

TERPINENOL *Plant 10 - 20 ppm*

No activity reported.

TERPINOLENE *Plant 1 - 90 ppm*

Allelochemic; Antifeedant; Antinitrosaminic; Antioxidant; Deodorant; FLavor *FEMA 15-60*; Fungicide; Perfumery; Pesticide

THUJONE *Plant 10 - 20 ppm*

Abortifacient; Anthelmintic; Antibacterial; Antiseptic; Antispasmodic $ED_{50}=0.127\text{ mg/ml}$; Cerebrodepressant; Convulsant 40 mg/kg ; Counterirritant; Emmenagogue; Epileptogenic; Hallucinogenic; Herbicide $IC_{50}=22\text{ mM}$; Neurotoxic; Perfumery; Pesticide; Respirainhibitor; Toxic

THYMOL *Plant:*

Acaricide; Allergenic; Analgesic; Ancylostomicide; Anesthetic; Ankylostomacide; Anthelmintic; Antiacne; Antiaggregant $IC_{50}=0.75$; Antialzheimeran?; Antiarthritic; Antiatherosclerotic $IC_{50}=4\text{ }\mu\text{M}$; Antibacterial $MIC=50-400\text{ }\mu\text{g/ml}$; Antibronchitic; Anticariogenic $MIC=200-400\text{ }\mu\text{g/ml}$; Anticholinesterase; Antihalitosis; Antiherpetic; Antiinflammatory (=indomethacin); Antileptic; Antimelanomic $IC_{50}=120\text{ }\mu\text{M/l}$; Antineuritic; Antioxidant 100 ppm ; Antioxidant (LDL) $IC_{50}=4\text{ }\mu\text{M}$; Antiperiodontic $MIC=50-200\text{ }\mu\text{g/ml}$; Antiplaque $MIC=39-625\text{ }\mu\text{g/ml}$; Antiradicular $EC=60$; Antirheumatic; Antisalmonella; Antiseptic 20 x phenol ; Antispasmodic; Antistaphylococccic; Antistreptococccic $MIC=200-400\text{ }\mu\text{g/ml}$; Antitrichinosic 5%; Antitussive; Ataxigenic; Candidicide $100\text{ }\mu\text{g/ml}$ (>*Nystatin*); Carminative; Counterirritant; Culicide $LC_{50}=36-49\text{ mg/l}$; Cyclooxygenase-Inhibitor (=indomethacin); Dentifrice; Deodorant; Dermatitogenic; Enterorelaxant; Enterotoxic; Expectorant; FLavor *FEMA 2-100*; Fungicide; Gastroirritant; Gram(+)icide $MIC=200-400\text{ }\mu\text{g/ml}$; Gram(-)icide $MIC=50-200\text{ }\mu\text{g/ml}$; Insecticide $0.22\text{ }\mu\text{M/fly}$ $LC_{50}=36-49\text{ mg/l}$; Insectifuge; Irritant; Larvicide 10 ppm 58 ppm $LC_{50}=36-49\text{ mg/l}$; Molluscicide; Myorelaxant; Nematicide $MLC=0.1\text{ mg/ml}$; Perfumery; Pesticide; Sedative; Sprout-Inhibitor; Tracheorelaxant; Trichomonicide $LD_{100}=25\text{ }\mu\text{g/ml}$; Urinary-Antiseptic; Varroacide; Vermicide

TRANS-BETA-OCIMENE *Plant 1 - 8 ppm*

No activity reported.

TRANS-ISOPULEGONE *Plant 70 - 320 ppm*

No activity reported.

TRANS-PULEGONE-OXIDE *Plant:*

No activity reported.