

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Zanthoxylum americanum*

| Activities Count | Chemical                               | Plant Part | Low PPM | High PPM | StdDev | Reference Citation   |
|------------------|--|------------|---------|----------|--------|--|
| 0                | (+)-LAURIFOLINE                        | Stem Bark  |         |          |        | --   |
| 0                | (+)-LAURIFOLINE                        | Root Bark  |         |          |        | --   |
| 0                | 8-(3,3-DIMETHYLALLYL)ALLOXANTHOXYLETIN | Plant      |         |          |        | --   |
| 0                | 8-(3,3-DIMETHYLALLYL)ALLOXANTHOXYLETIN | Root Bark  |         |          |        | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 0                | ALLOXANTHOXYLETIN                      | Root Bark  |         |          |        | --   |
| 0                | ALLOXANTHOXYLETIN                      | Stem Bark  |         |          |        | --   |
| 0                | ALLOXANTHOXYLETIN                      | Bark       |         |          |        | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 130              | BERBERINE                              | Plant      |         |          |        | --   |
| 0                | BETA-FAGARINE                          | Bark       |         |          |        | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 47               | BETA-SITOSTEROL                        | Root Bark  |         |          |        | --   |
| 4                | CANDICINE                              | Stem Bark  |         |          |        | --   |
| 4                | CANDICINE                              | Root Bark  |         |          |        | --   |
| 4                | CANDICINE                              | Bark       |         |          |        | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 4                | CANDICINE                              | Plant      |         |          |        | --   |
| 33               | CHELERYTHRINE                          | Root Bark  |         |          |        | --   |

| Activities Count | Chemical                            | Plant Part | Low PPM | High PPM | StdDev               | Reference Citation   |
|------------------|-------------------------------------|------------|---------|----------|----------------------|--|
| 33               | CHELERYTHRINE                       | Bark       |         |          |                      | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 0                | CNIDILIN                            | Fruit      | 3.0     | 12.5     |                      | --   |
| 0                | GAMMA-FAGARINE                      | Plant      |         |          |                      | --   |
| 0                | GAMMA-FAGARINE                      | Leaf       |         |          |                      | --   |
| 0                | HERCLAVINE                          | Plant      |         |          |                      | --   |
| 25               | IMPERATORIN                         | Fruit      | 5.0     | 19.0     | -0.10442286380063209 | --   |
| 8                | ISOIMPERATORIN                      | Fruit      | 3.0     | 12.5     | 1.377945636523876    | --   |
| 0                | LAURIFOLINE                         | Root       |         |          |                      | --   |
| 0                | LAURIFOLINE                         | Bark       |         |          |                      | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 0                | LAURIFOLINE                         | Stem Bark  |         |          |                      | --   |
| 0                | LAURIFOLINE                         | Root Bark  |         |          |                      | --   |
| 11               | MAGNOFLORINE                        | Stem Bark  |         |          |                      | --   |
| 11               | MAGNOFLORINE                        | Root Bark  |         |          |                      | --   |
| 11               | MAGNOFLORINE                        | Bark       |         |          |                      | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 5                | NITIDINE                            | Plant      |         |          |                      | --   |
| 5                | NITIDINE                            | Bark       |         |          |                      | --   |
| 5                | NITIDINE                            | Root Bark  |         |          |                      | --   |
| 0                | O-METHYLTYRAMINE-N-METHYL-CINNAMIDE | Plant      |         |          |                      | --   |

| Activities Count | Chemical      | Plant Part | Low PPM | High PPM | StdDev              | Reference Citation   |
|------------------|---------------|------------|---------|----------|---------------------|--|
| 31               | PSORALEN      | Fruit      | 4.0     | 15.0     | -0.4614599007226958 | --   |
| 0                | RESIN         | Plant      |         |          |                     | --   |
| 0                | RESINS        | Bark       |         |          |                     | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 21               | SKIMMIANINE   | Bl         |         |          |                     | --   |
| 21               | SKIMMIANINE   | Bark       |         |          |                     | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 21               | SKIMMIANINE   | Leaf       |         |          |                     | --   |
| 0                | TAMBETARINE   | Bark       |         |          |                     | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 35               | TANNIN        | Plant      |         |          |                     | --   |
| 0                | TANNINS       | Bark       |         |          |                     | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| 0                | TEMBETARINE   | Stem Bark  |         |          |                     | --   |
| 0                | TEMBETARINE   | Bark       |         |          |                     | --   |
| 0                | TEMBETARINE   | Root Bark  |         |          |                     | --   |
| 0                | TEMBETARINE   | Plant      |         |          |                     | --   |
| 0                | XANTHOXYLETIN | Bark       |         |          |                     | --   |
| 43               | XANTHOTOXIN   | Fruit      | 7.0     | 25.0     | -1.0                | --   |
| 1                | XANTHOXYLETIN | Stem Bark  |         |          |                     | --   |
| 1                | XANTHOXYLETIN | Root Bark  |         |          |                     | --   |
| 1                | XANTHOXYLETIN | Plant      |         |          |                     | --   |

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|------------------|---------------|------------|---------|----------|--------|--|
| 1                | XANTHOXYLETIN | Bark       |         |          |        | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 4                | XANTHOXYLIN   | Plant      |         |          |        | --   |
| 1                | XANTHYLETIN   | Bark       |         |          |        | --   |
| 1                | XANTHYLETIN   | Root Bark  |         |          |        | --   |
| 1                | XANTHYLETIN   | Stem Bark  |         |          |        | --   |