## Presence of Compounds in Brazilian Peppertree (Schinus molle)

| Compound                   | Chemical Type | Plant Part  | Plant Origin                                     | Quantity   | Ref #                                |
|----------------------------|---------------|---|--|--|--------------------------------------|
| Amyrin,alpha:              | Triterpene    | Entire Plant  | Egypt  | Not stated   | T04147                               |
| Behenic Acid               | Lipid         | Fruit   | Italy  | Not stated   | M01614                               |
| Bergamont-trans-ene,alpha: | Sesquiterpene | Fruit Essential Oil   | Not Stated                                       | Not Stated   | M10800                               |
| Bicyclogermacrene          | Sesquiterpene | Leaf Essential Oil  | Uruguay  | 29.2%  | J14452                               |
| Bourbonene                 | Sesquiterpene | Fruit Essential Oil   | Not Stated                                       | Not Stated   | M10800                               |
| Cadinene, delta:           | Sesquiterpene | Fruit Essential Oil<br>Fruit Essential Oil<br>Leaf Essential Oil                  | USA-CA<br>Not Stated<br>Uruguay                  | 09.11%<br>Not Stated<br>01.26%                       | T08301<br>M10800<br>J14452           |
| Cadinol, alpha:            | Sesquiterpene | Fruit Essential Oil   | USA-CA   | 06.64%   | T08301                               |
| Cadinol, delta:            | Sesquiterpene | Fruit Essential Oil   | USA-CA   | 00.69%   | T08301                               |
| Cadinol, t:                | Sesquiterpene | Fruit Essential Oil   | USA-CA   | 01.39%   | T08301                               |
| Calacorene, alpha:         | Sesquiterpene | Fruit Essential Oil   | USA-CA   | 00.26%   | T08301                               |
| Calacorene, gamma:         | Sesquiterpene | Fruit Essential Oil   | USA-CA   | 00.15%   | T08301                               |
| Calamenediol, iso: Pre     | Sesquiterpene | Leaf  | Not Stated                                       | 00.06%   | M13851                               |
| Calamenene                 | Sesquiterpene | Fruit Essential Oil   | USA-CA   | 00.28%   | T08301                               |
| Calcium                    | Inorganic     | Gum   | Uruguay  | Not Stated   | W00209                               |
| Camphene                   | Monoterpene   | Fruit Essential Oil<br>Fruit Essential Oil<br>Leaf Essential Oil                  | USA<br>Not Stated<br>USA-CA                      | Not Stated<br>Not Stated<br>Not Stated               | W01801<br>M10800<br>T08301           |
| Car-3-ene                  | Monoterpene   | Essential Oil   | Uruguay  | Not Stated   | W00209                               |
| Carvacrol                  | Monoterpene   | Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil<br>Leaf Essential Oil | Uruguay<br>Not Stated<br>Not Stated<br>Argentina | Not Stated<br>Not Stated<br>Not Stated<br>Not Stated | W00209<br>M10800<br>A02760<br>W01632 |

| Compound                         | Chemical Type   | Plant Part   | Plant Origin  | Quantity  | Ref #  |
|----------------------------------|-----------------|--|---|---|--|
| Caryophyllene Oxide              | Sesquiterpene   | Leaf Essential Oil   | Uruguay   | 00.53%  | J14452   |
| Caryophyllene, beta:             | Sesquiterpene   | Fruit Essential Oil<br>Fruit Essential Oil<br>Leaf Essential Oil         | USA-CA<br>Not Stated<br>Uruguay   | 02.02%<br>Not Stated<br>07.68%  | T08301<br>M10800<br>J14452   |
| Cerotic Acid                     | Lipid           | Fruit  | Italy   | Not Stated  | M01614   |
| Copaene, alpha:                  | Sesquiterpene   | Fruit Essential Oil  | USA-CA  | 00.12%  | T08301   |
| Croweacin                        | Phenylpropanoid | Fruit Essential Oil  | Argentina   | Not Stated  | W01632   |
| Cubebene, alpha:                 | Sesquiterpene   | Fruit Essential Oil  | USA-CA  | 00.13%  | T08301   |
| Cyanidin-3-o-alpha-l-galactoside | Flavonoid       | Fruit  | Argentina   | Not Stated  | J08044   |
| Cyanidin-3-o-beta-d-rutinoside   | Flavonoid       | Fruit  | Argentina   | Not Stated  | J08044   |
| Cymene, para:                    | Monoterpene     | Fruit Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil        | USA-CA<br>USA<br>Not Stated   | 02.93%<br>Not Stated<br>Not Stated  | T08301<br>W01801<br>M10800   |
| Elemene, beta:                   | Sesquiterpene   | Fruit Essential Oil  | USA-CA  | 00.52%  | T08301   |
| Elemol                           | Sesquiterpene   | Fruit Essential Oil  | USA-CA  | 01.32%  | T08301   |
| Elemonic Acid, beta:             | Triterpene      | Seed   | Mexico  | 00.0308%  | M24026   |
| Essential Oil (Schinus molle)    | Essential Oil   | Fruit + Leaf Oil Leaf Fruit Fruit Fruit Fruit + Leaf Fruit Leaf Gum Leaf | South Africa Algeria Not Stated Uruguay Argentina South Africa Mexico Mexico Uruguay Agentina | Not Stated Not Stated 04.0% 04.8% 04.8% Not Stated Not Stated Not Stated Not Stated 03.0% | A03080<br>W01625<br>A02760<br>A02855<br>W01632<br>W01625<br>W01625<br>W01625<br>W00209<br>W01632 |
| Eudesmol, alpha:                 | Sesquiterpene   | Fruit Essential Oil  | USA-CA  | 00.90%  | T08301   |
| Eudesmol, beta:                  | Sesquiterpene   | Fruit Essential Oil  | USA-CA  | 01.01%  | T08301   |

| Compound  | Chemical Type | Plant Part   | Plant Origin                    | Quantity                               | Ref #                      |
|---|---------------|--|---------------------------------|--|----------------------------|
| Eudesmol, gamma:  | Sesquiterpene | Fruit Essential Oil  | USA-CA                          | 01.04%                                 | T08301                     |
| Fisetin   | Flavonol      | Bark   | Egypt (cult)                    | Not Stated                             | M20865                     |
| Gallic Acid   | Benzenoid     | Leaf & Bark  | Egypt (cult)                    | Not Stated                             | M20865                     |
| Geraniol Butyrate   | Monoterpene   | Fruit Essential Oil  | USA-CA                          | 00.34%                                 | T08301                     |
| Germacrene D  | Sesquiterpene | Fruit Essential Oil<br>Leaf Essential Oil                        | Not Stated<br>Uruguay           | Not Stated<br>12.08%                   | M10800<br>J14452           |
| Germacrone  | Sesquiterpene | Leaf Essential Oil   | Uruguay                         | 00.75%                                 | J14452                     |
| Guaiene, beta:  | Sesquiterpene | Fruit Essential Oil  | USA-CA                          | 00.22%                                 | T08301                     |
| Gurjunene, alpha:   | Sesquiterpene | Fruit Essential Oil  | USA-CA                          | 00.71%                                 | T08301                     |
| Heptacosanoic Acid  | Lipid         | Fruit  | Italy                           | Not Stated                             | M01614                     |
| Humulene, alpha:  | Sesquiterpene | Fruit Essential Oil<br>Leaf Essential Oil                        | USA-CA<br>Uruguay               | 00.58%<br>00.57%                       | T08301<br>J14452           |
| Laccase   | Proteid       | Shoots   | Israel                          | Not Stated                             | T01016                     |
| Lanosta-8-cis-24-dien-26-oic acid,3<br>alpha-hydroxy-21-oxo:<br>13-alpha-14-Beta-17-alpha:- (20-r): | Triterpene    | Leaf   | Spain                           | 00.03%                                 | J15736                     |
| Lanosta-8-cis-24-dien-26-oic acid,3:<br>alpha-hydroxy: 13-alpha-14-beta-17<br>-alpha: (20-s):       | Triterpene    | Leaf   | Spain                           | 00.01714%                              | J15736                     |
| Lignoceric Acid   | Lipid         | Leaf + Stem<br>Leaf + Stem<br>Fruit                              | Mexico<br>Mexico<br>Italy       | Not Stated<br>Not Stated<br>Not Stated | A02708<br>W01546<br>M01614 |
| Limonene  | Monoterpene   | Fruit Essential Oil<br>Fruit Essential Oil<br>Leaf Essential Oil | USA-CA<br>Not Stated<br>Uruguay | 07.23%<br>Not Stated<br>00.88%         | T08301<br>M10800<br>J14452 |
| Limonene, (+)   | Monoterpene   | Fruit Essential Oil  | USA                             | Not Stated                             | W01801                     |
| Linalool  | Monoterpene   | Leaf Essential Oil   | Uruguay                         | 00.71%                                 | J14452                     |

| Compound                           | Chemical Type | Plant Part  | Plant Origin                           | Quantity                                     | Ref #                                |
|------------------------------------|---------------|---|--|--|--------------------------------------|
| Linoleic Acid                      | Lipid         | Seed Oil  | Australia (cult)                       | 57.0%  | T01965                               |
| Malvalic Acid, dihydro             | Lipid         | Seed Oil  | Not Stated                             | Not Stated                                   | M19312                               |
| Masticadienoic Acid, iso           | Triterpene    | Fruit   | Italy                                  | Not Stated                                   | M01614                               |
| Masticadienolalic Acid, iso: 3-epi | Sesquiterpene | Seed  | Mexico                                 | Not Stated                                   | M24026                               |
| Masticadienolic Acid, iso          | Triterpene    | Fruit<br>Seed   | Sicily<br>Mexico                       | Not Stated<br>00.069%                        | W00010<br>M24026                     |
| Masticadienolic Acid, iso: 3-epi   | Triterpene    | Seed<br>Fruit   | Mexico<br>Italy                        | 00.0207%<br>Not Stated                       | M24026<br>M01614                     |
| Masticadienonalic Acid, iso        | Triterpene    | Fruit<br>Fruit  | Sicily<br>Italy                        | 00.875%<br>Not Stated                        | T01429<br>M01614                     |
| Masticadienonalic Acid, iso: 3-epi | Triterpene    | Fruit   | Italy                                  | Not Stated                                   | M01614                               |
| Masticadienonic Acid               | Triterpene    | Fruit   | Italy                                  | Not Stated                                   | M01614                               |
| Masticadienonic Acid, iso          | Triterpene    | Fruit<br>Fruit<br>Seed  | Sicily<br>Sicily<br>Mexico             | 00.475%<br>Not Stated<br>00.0127%            | T01429<br>W00010<br>M24026           |
| Menth-cis-2-en-1-ol                | Monoterpene   | Leaf Essential Oil  | Ethiopia                               | Not Stated                                   | J13498                               |
| Muurolene, alpha                   | Sesquiterpene | Fruit Essential Oil   | USA-CA                                 | 01.48%                                       | T08301                               |
| Muurolene, gamma                   | Sesquiterpene | Fruit Essential Oil   | USA-CA                                 | 00.48%                                       | T08301                               |
| Muurolol, t                        | Sesquiterpene | Fruit Essential Oil   | USA-CA                                 | 02.32%                                       | T08301                               |
| Myrcene                            | Monoterpene   | Fruit Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil<br>Leaf Essential Oil | USA-CA<br>USA<br>Not Stated<br>Uruguay | 20.41%<br>Not Stated<br>Not Stated<br>05.46% | T08301<br>W01801<br>M10800<br>J14452 |
| Nerol Hexanoate                    | Monoterpene   | Fruit Essential Oil   | USA-CA                                 | 00.28%                                       | T08301                               |
| Octacosanoic Acid                  | Lipid         | Fruit   | Italy                                  |  | M01614                               |
| Octanoic Acid Methyl Ester         | Lipid         | Fruit Essential Oil<br>Fruit Essential Oil  | USA-CA<br>Not Stated                   | 00.95%<br>Not Stated                         | T08301<br>M10800                     |

| Compound                       | Chemical Type | Plant Part   | Plant Origin  | Quantity   | Ref #  |
|--------------------------------|---------------|--|---|--|--|
| Oleic Acid                     | Lipid         | Seed Oil   | Australia (cult)  | 23.3%  | T01965   |
| Paeonidin-3-o-beta-d-glucoside | Flavonoid     | Fruit  | Argentina   | Not Stated   | J08044   |
| Palmitic Acid                  | Lipid         | Seed Oil   | Australia (cult)  | 13.0%  | T01965   |
| Pentacosanoic Acid             | Lipid         | Fruit  | Italy   | Not Stated   | M01614   |
| Pentan-1-ol,3-methyl: formate  | Alkanol       | Fruit Essential Oil  | Argentina (cult)  | Not Stated   | W01632   |
| Peroxidase                     | Proteid       | Gum  | Uruguay   | Not Stated   | W00209   |
| Phellandrene, alpha            | Monoterpene   | Fruit Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil<br>Leaf Essential Oil | Not Stated Argentina (cult) USA Argentina (cult) Not Stated       | Not Stated<br>Not Stated<br>17.34%<br>Not Stated<br>Not Stated | M10800<br>W01632<br>T08301<br>W01801<br>W01632 |
| Phellandrene, beta             | Monoterpene   | Fruit Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil<br>Leaf Essential Oil | Not Stated<br>Argentina (cult)<br>USA-CA<br>Uruguay<br>Not Stated | Not Stated<br>Not Stated<br>Not Stated<br>06.21%<br>00.3%      | A02760<br>W01632<br>W01801<br>T08301<br>J14452 |
| Phenol, ortho-ethyl            | Benzenoid     | Fruit Essential Oil<br>Fruit Essential Oil   | Argentina (cult)<br>Not Stated                                    | Not Stated<br>Not Stated                                       | W01632<br>M10800                               |
| Pinene                         | Monoterpene   | Essential Oil<br>Fruit Essential Oil   | Uruguay<br>Not Stated   | Not Stated<br>Not Stated                                       | W00209<br>A02760                               |
| Pinene, alpha                  | Monoterpene   | Fruit Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil<br>Leaf Essential Oil                        | USA<br>Not Stated<br>USA-CA<br>Argentina (cult)                   | Not Stated<br>Not Stated<br>02.66%<br>Not Stated               | W01801<br>M10800<br>T08301<br>W01632           |
| Pinene, beta                   | Monoterpene   | Leaf Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil | Uruguay<br>Not Stated<br>USA<br>USA-CA<br>Argentina (cult)        | 13.95%<br>Not Stated<br>Not Stated<br>00.17%<br>Not Stated     | J14452<br>M10800<br>W01801<br>T08301<br>W01632 |

| Compound                  | Chemical Type | Plant Part   | Plant Origin                              | Quantity                               | Ref #                      |
|---------------------------|---------------|--|---|--|----------------------------|
| Piperine                  | Alkaloid      | Fruit<br>Fruit   | Peru<br>Brazil                            | Not Stated<br>Not Stated               | W01851<br>A06590           |
| Piperitol, trans          | Monoterpene   | Leaf Essential Oil   | Ethiopia                                  | Not Stated                             | J13498                     |
| Protocatechuic Acid       | Benzenoid     | Bark   | Egypt (cult)                              | Not Stated                             | M20865                     |
| Quercetin                 | Flavonol      | Leaf<br>Leaf + Stem<br>Leaf                                      | Egypt (cult)<br>Mexico<br>Argentina       | Not Stated<br>Not Stated<br>00.8%      | M20865<br>W01546<br>A02784 |
| Quercitrin, iso           | Flavonol      | Leaf   | Argentina                                 | 00.07%                                 | A02784                     |
| Raffinose                 | Carbohydrate  | Leaf   | Egypt (cult)                              | Not Stated                             | M20865                     |
| Rutin                     | Flavonol      | Leaf   | Argentina                                 | 00.15%                                 | A02784                     |
| Sabinene                  | Monoterpene   | Fruit Essential Oil<br>Leaf Essential Oil<br>Fruit Essential Oil | Not Stated<br>Uruguay<br>USA-CA           | Not Stated<br>12.92%<br>Not Stated     | M10800<br>J14452<br>T08301 |
| Sitosterol, beta          | Steroid       | Leaf + Stem<br>Entire Plant<br>Leaf + Stem                       | Mexico<br>Egypt<br>Mexico                 | Not Stated<br>Not Stated<br>Not Stated | A02708<br>T04147<br>W01546 |
| Spathulene, beta          | Sesquiterpene | Fruit<br>Fruit Essential Oil                                     | Mexico<br>Not Stated                      | Not Stated<br>Not Stated               | W01816<br>M10800           |
| Sucrose                   | Carbohydrate  | Leaf<br>Bark   | Egypt (cult)<br>Egypt (cult)              | Not Stated<br>Not Stated               | M20865<br>M20865           |
| Terpinen-4-ol             | Monoterpene   | Leaf Essential Oil   | Uruguay                                   | 10.57%                                 | J14452                     |
| Terpinene, alpha          | Monoterpene   | Fruit Essential Oil  | Not Stated                                | Not Stated                             | M10800                     |
| Terpinene, gamma          | Monoterpene   | Fruit Essential Oil<br>Leaf Essential Oil                        | Not Stated<br>Uruguay                     | Not Stated 01.13%                      | M10800<br>J14452           |
| Terpineol, alpha          | Monoterpene   | Leaf Essential Oil<br>Fruit Essential Oil<br>Fruit Essential Oil | Uruguay<br>Not Stated<br>Argentina (cult) | 01.25%<br>Not Stated<br>Not Stated     | J14452<br>M10800<br>W01632 |
| Terpineol, alpha: formate | Monoterpene   | Fruit Essential Oil  | Argentina (cult)                          | Not Stated                             | W01632                     |

| Compound         | Chemical Type | Plant Part                   | Plant Origin        | Quantity                 | Ref #            |
|------------------|---------------|------------------------------|---------------------|--------------------------|------------------|
| Terpinolene      | Monoterpene   | Fruit Essential Oil          | USA-CA              | 00.10%                   | T08301           |
| Tricosanoic Acid | Lipid         | Fruit<br>Fruit Essential Oil | Italy<br>Not Stated | Not Stated<br>Not Stated | M10800<br>M01614 |

## Other Phytochemical Screening:

| Alkaloids Absent           | Leaf + Stem  | A02708 | Sterols and/or Triterpenes Present           | Aerial Parts    | A04080 |
|----------------------------|--------------|--------|--|-----------------|--------|
|                            | Aerial Parts | A04080 | Tannins (ferric chloride test) Present       | Part Not Stated | A04964 |
| Alkaloids Present          | Leaf + Stem  | A03779 | Tannins (gelatin salt-block test) Absent     | Aerial Parts    | A04080 |
| Flavonoids Present         | Leaf         | M20865 | Tannins (gelatin-precipitation test) Absent  | Aerial Parts    | A04080 |
|                            | Bark         | M20865 | Tannins (gelatin-precipitation test) Present | Leaf            | M20865 |
| Steroidal Saponins Present | Leaf + Stem  | W01546 |  | Bark            | M20865 |

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