<table>
<thead>
<tr>
<th>Mineral</th>
<th>Source</th>
<th>Chemical Formula</th>
<th>Hardness</th>
<th>Color</th>
<th>Streak</th>
<th>Cleavage/Fracture</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Actinolite</td>
<td>India</td>
<td>Ca$_2$(Mg,Fe)$_5$Si$<em>8$O$</em>{22}$ (OH)$_2$</td>
<td>5.5-6</td>
<td>Black, gray, dark green</td>
<td>White / colorless</td>
<td>Good in 2 directions</td>
<td>Some gemstones (ex: one of the jade minerals)</td>
</tr>
<tr>
<td>2. Amazonite</td>
<td>Madagascar</td>
<td>KAlSi$_3$O$_8$</td>
<td>6-6.5</td>
<td>Pale to deep green and greenish-blue</td>
<td>White / colorless</td>
<td>Good in 2 directions</td>
<td>Gemstone</td>
</tr>
<tr>
<td>3. Amethyst</td>
<td>India</td>
<td>SiO$_2$</td>
<td>7</td>
<td>Purple (from trace Fe and Mg impurities)</td>
<td>Colorless</td>
<td>No cleavage; conchoidal fracture</td>
<td>Gemstone</td>
</tr>
<tr>
<td>4. Apatite (fluorapatite)</td>
<td>Madagascar</td>
<td>Ca$_5$(PO$_4$)$_3$F</td>
<td>5</td>
<td>Tan, green, blue</td>
<td>White</td>
<td>Poor in 1 direction</td>
<td>Fertilizer; acid production; minor gemstone</td>
</tr>
<tr>
<td>5. Bauxite</td>
<td>Arkansas, USA</td>
<td>AlO(OH) and/or AlO(OH)$_3$</td>
<td>1-3</td>
<td>White, tan, brown, orange; contains pea-sized spheres</td>
<td>Tan</td>
<td>No cleavage; crumbly fracture</td>
<td>Aluminum ore; abrasives; hydraulic fracturing</td>
</tr>
<tr>
<td>6. Biotite mica</td>
<td>Ontario, Canada</td>
<td>K(Mg,Fe)$_2$Al$_2$Si$<em>3$O$</em>{10}$(OH,F)$_2$</td>
<td>2-2.5</td>
<td>Black, brown; transparent in thin sheets</td>
<td>Brown</td>
<td>Perfect in 1 direction</td>
<td>Filler in paints; drilling mud</td>
</tr>
<tr>
<td>7. Calcite</td>
<td>Chihuahua, Mexico</td>
<td>CaCO$_3$</td>
<td>3</td>
<td>Commonly white, many other colors</td>
<td>White</td>
<td>Good in 3 directions; forms rhomboids</td>
<td>Cement; acid neutralizer; abrasive</td>
</tr>
<tr>
<td>8. Native Copper</td>
<td>Michigan, USA</td>
<td>Cu</td>
<td>3</td>
<td>Copper, blue-green (when weathered)</td>
<td>Copper</td>
<td>Fracture</td>
<td>Electronics and wires; money; many other uses</td>
</tr>
<tr>
<td>9. Fluorite</td>
<td>Coahuila, Mexico</td>
<td>CaF$_2$</td>
<td>4</td>
<td>Green, purple, blue, yellow, white</td>
<td>White</td>
<td>Good in 4 directions</td>
<td>Hydrofluoric acid; metallurgy</td>
</tr>
<tr>
<td>10. Garnet (var. almandine)</td>
<td>India</td>
<td>Fe$^{2+}$_2Al$_2$Si$<em>3$O$</em>{12}$</td>
<td>7-7.5</td>
<td>Dark red, reddish-brown, black</td>
<td>Colorless</td>
<td>None; conchoidal fracture</td>
<td>Abrasives, filtration, gemstone</td>
</tr>
<tr>
<td>11. Gypsum rose (selenite)</td>
<td>Mexico</td>
<td>CaSO$_4$.2H$_2$O</td>
<td>2</td>
<td>White, yellowish, clear</td>
<td>White</td>
<td>Excellent in 3 directions</td>
<td>Drywall, plaster, agricultural uses</td>
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<tr>
<td><strong>12. Hematite</strong></td>
<td>India</td>
<td>Fe₂O₃</td>
<td>5-6.5</td>
<td>Red, gray, tan, black; earthy to metallic</td>
<td>Brick red</td>
<td>Fracture</td>
<td>Principal iron ore; pigments</td>
</tr>
<tr>
<td><strong>13. Kaolin Clay</strong> (kaolinite)</td>
<td>Arkansas, USA</td>
<td>Al₂Si₂O₅(OH)</td>
<td>1-1.5</td>
<td>White to gray</td>
<td>White</td>
<td>Fracture</td>
<td>Ceramics and brick; refractory materials</td>
</tr>
<tr>
<td><strong>14. Magnetite</strong></td>
<td>Mexico</td>
<td>Fe₃O₄</td>
<td>5-6.5</td>
<td>Dark gray, black, somewhat metallic</td>
<td>Gray-black</td>
<td>Fracture</td>
<td>Principal iron ore</td>
</tr>
<tr>
<td><strong>15. Muscovite mica</strong></td>
<td>Virginia, USA</td>
<td>KAl₃(Si₃AlO₁₀)(OH)₂</td>
<td>2-2.5</td>
<td>Brown to silvery; transparent in thin sheets</td>
<td>White</td>
<td>Perfect in 1 directions</td>
<td>Filler in paint; cosmetics; rubber; drilling mud</td>
</tr>
<tr>
<td><strong>16. Quartz</strong></td>
<td>Brazil</td>
<td>SiO₂</td>
<td>7</td>
<td>Clear, white or a range of colors (gray, pink, purple, yellow, etc.)</td>
<td>Colorless</td>
<td>Conchoidal fracture</td>
<td>Gemstones; glass production; foundry sand</td>
</tr>
<tr>
<td><strong>17. Plagioclase feldspar</strong></td>
<td>Virginia, USA</td>
<td>NaAlSi₃O₈ – CaAl₂Si₂O₈ (range of Na to Ca)</td>
<td>6-6.5</td>
<td>White, pink, orange, gray</td>
<td>White</td>
<td>Fair in 2 directions</td>
<td>Building stone; gemstones</td>
</tr>
<tr>
<td><strong>18. Potassium feldspar</strong> (orthoclase)</td>
<td>India</td>
<td>KAlSi₃O₈</td>
<td>6</td>
<td>Light pink, orange</td>
<td>White</td>
<td>Good in 2 directions</td>
<td>Glass and ceramics</td>
</tr>
<tr>
<td><strong>19. Iron pyrite</strong></td>
<td>Chihuahua, Mexico</td>
<td>FeS</td>
<td>6.5-7</td>
<td>Brassy</td>
<td>Dark gray</td>
<td>Perfect in 3 dimensions; forms cubes</td>
<td>Sulfuric acid production</td>
</tr>
<tr>
<td><strong>20. Tourmaline</strong> (black schorl)</td>
<td>Pakistan</td>
<td>(Na, Ca)(Mg, Li, Al, Fe³⁺)₃ Al₆(BO₃)₂Si₆O₁₈(OH)₄</td>
<td>7-7.5</td>
<td>Black, red, yellow, green, purple, blue, pink, clear</td>
<td>White</td>
<td>Poor cleavage in 2 directions</td>
<td>Gemstone</td>
</tr>
</tbody>
</table>