Pinchite

**Hg₅O₄Cl₂**

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**Crystal Data:** Orthorhombic.  **Point Group:** 2/m 2/m 2/m.  As euhedral crystals, to 1 mm, blocky to tabular, may be distorted, showing {001}, {010}, {100}, and {012}.

**Physical Properties:** Hardness = Very soft.  D(meas.) = 9.5  D(calc.) = 9.25

**Optical Properties:** Opaque, transparent in thin fragments.  **Color:** Black to dark brown.  **Streak:** Reddish brown.  **Optical Class:** Biaxial; very strong birefringence.  **Pleochroism:** Strong; red to black.  **n** = > 2.0  **2V(meas.)** = n.d.

**Cell Data:**  **Space Group:** Ibam.  **a** = 11.619(3)  **b** = 6.105(2)  **c** = 11.710(3)  **Z** = 4

**X-ray Powder Pattern:** Terlingua, Texas, USA.
2.837 (100), 2.695 (80), 3.94 (60), 2.919 (50), 3.256 (35), 2.169 (20), 1.791 (15)

**Chemistry:**

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>HgO</td>
<td>94.5</td>
</tr>
<tr>
<td>Cl</td>
<td>6.3</td>
</tr>
<tr>
<td>Br</td>
<td>0.2</td>
</tr>
<tr>
<td>−O = (Cl,Br)₂</td>
<td>[1.4]</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>[99.6]</strong></td>
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</tbody>
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(1) Terlingua, Texas, USA; by neutron activation, corresponding to Hg₅₀₀O₄₀₀Cl₂₀₄Br₀₀₃.

**Occurrence:** A secondary mineral in a hydrothermal mercury deposit.

**Association:** Montroydite, terlinguaite.

**Distribution:** From Terlingua, Brewster Co., Texas, USA.

**Name:** To honor William Wallace Pinch (1940– ), American mineral collector of Rochester, New York, USA, who first noted the species.

**Type Material:** Canadian Museum of Nature, Ottawa; Royal Ontario Museum, Toronto, Canada, M33258; Harvard University, Cambridge, Massachusetts, 119858; National Museum of Natural History, Washington, D.C., USA, 128440, 132391, 160256.


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