**Poyarkovite**

**Hg₃OCl**

**Crystal Data:** Monoclinic. *Point Group: 2/m.* Granular, porous to dense, to 1 mm. *Twinning:* Frequently observed under the microscope.

**Physical Properties:** *Fracture:* Irregular to conchoidal. *Tenacity:* Very brittle. Hardness = 2-2.5 VHN = 173-201, 188 average (20 g load). D(meas.) = 9.56 D(calc.) = 9.643


**Cell Data:** *Space Group: C2/c.* a = 19.009(3) b = 9.018(4) c = 16.848(9) β = 118.82(3°) Z = 24

**X-ray Powder Pattern:** Khaydarkan, Kyrgyzstan.

2.83 (10), 2.74 (8), 1.799 (6.5), 2.60 (6), 3.09 (5), 2.96 (4), 1.883 (4)

**Chemistry:**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hg</td>
<td>91.30</td>
<td>92.12</td>
</tr>
<tr>
<td>O</td>
<td>2.36</td>
<td>2.45</td>
</tr>
<tr>
<td>Cl</td>
<td>5.30</td>
<td>5.43</td>
</tr>
<tr>
<td>Total</td>
<td>98.96</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Khaydarkan, Kyrgyzstan; by electron microprobe, average of ten analyses; corresponds to Hg₃.0₃O₀.₉₉Cl₁.₀₀. (2) Hg₃OCl.

**Occurrence:** A secondary mineral in the oxidized zone of mercury deposits.

**Association:** Eglestonite, calomel, terlinguaite, montroydite, kuznetsovite, shakhovite, chursinite, corderoite, mercury, cinnabar, livingstonite.

**Distribution:** In the Khaydarkan mercury deposit, Fergana Valley, Alai Range, south Kyrgyzstan. From the Arzak mercury deposit, ~12 km northeast of the Terlig-Khaya mercury mine, Pii-Khem district, Tuva Republic, Russia.

**Name:** Honors Vladimir Erastovich Poyarkov (1907-1975), Institute of Mineral Resources, Alma-Ata, Kyrgyzstan, investigator of mercury deposits, one of the discoverers of the Khaydarkan deposit.

**Type Material:** Central Siberian Geological Museum, Siberian Division, Academy of Sciences, Novosibirsk, Russia.

**References:**