The positions and energies are determined from a multi-isotopic analysis of ground and $v < 2$ data as described in B.J. Drouin. JCPA 2012, DOI: 10.1021/jp400923z and references therein.

<table>
<thead>
<tr>
<th>state label</th>
<th>vibrational quantum number</th>
<th>isotopologue</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>$^{16}$O$^1$H</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>$^{16}$O$^1$H</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>$^{16}$O$^1$H</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>$^{17}$O$^1$H</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>$^{17}$O$^1$H</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>$^{17}$O$^1$H</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
<td>$^{18}$O$^1$H</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>$^{18}$O$^1$H</td>
</tr>
<tr>
<td>22</td>
<td>2</td>
<td>$^{18}$O$^1$H</td>
</tr>
<tr>
<td>30</td>
<td>0</td>
<td>$^{16}$O$^2$H</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>$^{16}$O$^2$H</td>
</tr>
<tr>
<td>32</td>
<td>2</td>
<td>$^{16}$O$^2$H</td>
</tr>
<tr>
<td>40</td>
<td>0</td>
<td>$^{17}$O$^2$H</td>
</tr>
<tr>
<td>41</td>
<td>1</td>
<td>$^{17}$O$^2$H</td>
</tr>
<tr>
<td>42</td>
<td>2</td>
<td>$^{17}$O$^2$H</td>
</tr>
<tr>
<td>50</td>
<td>0</td>
<td>$^{18}$O$^2$H</td>
</tr>
<tr>
<td>51</td>
<td>1</td>
<td>$^{18}$O$^2$H</td>
</tr>
<tr>
<td>52</td>
<td>2</td>
<td>$^{18}$O$^2$H</td>
</tr>
</tbody>
</table>