$$\Psi_{83} = C_1 \left(|0ddu\rangle + |0dud\rangle + |0udd\rangle - i\,|d0du\rangle - i\,|d0ud\rangle - |dd0u\rangle + i\,|ddu0\rangle - |du0d\rangle + i\,|dud0\rangle - i\,|u0dd\rangle - |ud0d\rangle + i\,|udd0\rangle\right)$$

$$C_1 = \frac{\frac{i}{2}}{\sqrt{3}}$$