*Amount Solid in stomach*

|  |
| --- |
| **Equation 1**  **Equation 2**  **Equation 3** |

*Amount Solid in duodenum*

**Equation 4**

*Amount Solid in jejunum*

**Equation 5**

*Amount Dissolved in duodenum*

**Equation 6**

*Amount Dissolved in jejunum*

**Equation 7**

*Amount in Plasma*

**Equation 8**

**Estimated functions**:

**Equation 9**

**Equation 10**

**Equation 11**

and correspond to ibuprofen solubility values in jejunum and duodenum at each sampling time (ti). Solubility is calculated at each time point from the intrinsic solubility value Cs0 (68 µg/mL) and using pH data at each time point in each segment.

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| --- |
| **Equation 12** |
| **Equation 13** |