$$\frac{c_{i,j}^{n+1} - c_{i,j}^{n}}{\Delta t} + v_x \frac{c_{i,j}^{n} - c_{i-1,j}^{n}}{\Delta x} + v_y \frac{c_{i,j}^{n} - c_{i,j-1}^{n}}{\Delta y} = 0 \qquad \text{for} \qquad v_x, v_y > 0$$

$$\frac{c_{i,j}^{n+1} - c_{i,j}^{n}}{\Delta t} + v_x \frac{c_{i+1,j}^{n} - c_{i,j}^{n}}{\Delta x} + v_y \frac{c_{i,j+1}^{n} - c_{i,j}^{n}}{\Delta y} = 0 \qquad \text{for} \qquad v_x, v_y < 0$$

$$c_{i,j}^{n} = c(x_i, y_j, t_n)$$