

### 3.1.4 Iodoalkenes

#### 2-Iodo-1-propene

[4375-96-6]



MW = 167.98

761

**Table 1.** Experimental values with uncertainties.

| $\frac{T}{\text{K}}$ | $\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$ | Ref.     |
|----------------------|--|----------|
| 273.15               | $1834.60 \pm 2.00$   | 1865-sem |
| 289.55               | $1802.80 \pm 2.00$   | 1865-sem |

#### 3-Iodo-1-propene

[556-56-9]



MW = 167.98

762

**Table 1.** Experimental values with uncertainties.

| $\frac{T}{\text{K}}$ | $\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$ | Ref.           |
|----------------------|--|----------------|
| 287.15               | $1838.00 \pm 3.00$   | 1864-lin       |
| 273.15               | $1843.50 \pm 3.00$   | 1881-pri/han   |
| 296.15               | $1829.30 \pm 3.00$   | 1882-zan       |
| 291.65               | $1887.00 \pm 2.00$   | 1911-dob       |
| 295.15               | $1845.40 \pm 2.00$   | 1948-let/tra-1 |

#### 1-Iodo-2-butene

[627-24-7]



MW = 182.00

763

**Table 1.** Fit with estimated B coefficient for 3 accepted points. Deviation  $\sigma_w = 0.094$ .

| Coefficient | $\rho = A + BT$ |
|-------------|-----------------|
| A           | 2135.80         |
| B           | -1.660          |

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

| $\frac{T}{\text{K}}$ | $\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$ | $\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$ | Ref.       |
|----------------------|--|--|------------|
| 273.15               | $1682.30 \pm 2.00$   | -0.07  | 1899-cha-2 |
| 293.15               | $1649.10 \pm 2.00$   | -0.07  | 1899-cha-2 |
| 298.15               | $1641.00 \pm 2.00$   | 0.13   | 1899-cha-2 |

cont.

**1-Iodo-2-butene** (cont.)**Table 3.** Recommended values.

| $T$<br>K | $\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$<br>$\text{kg} \cdot \text{m}^{-3}$ |
|----------|---|
| 270.00   | $1687.6 \pm 2.6$  |
| 280.00   | $1671.0 \pm 2.0$  |
| 290.00   | $1654.4 \pm 1.8$  |
| 293.15   | $1649.2 \pm 1.9$  |
| 298.15   | $1640.9 \pm 2.1$  |

**3-Iodo-1-pentene**

[66688-61-7]

 $\text{C}_5\text{H}_9\text{I}$ 

MW = 196.03

764

**Table 1.** Experimental value with uncertainty.

| $T$<br>K | $\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$<br>$\text{kg} \cdot \text{m}^{-3}$ | Ref.     |
|----------|---|----------|
| 293.15   | $1557.90 \pm 2.00$  | 1937-goe |

**4-Iodo-1-pentene**

[59967-14-5]

 $\text{C}_5\text{H}_9\text{I}$ 

MW = 196.03

765

**Table 1.** Fit with estimated B coefficient for 3 accepted points. Deviation  $\sigma_w = 0.141$ .

| Coefficient | $\rho = A + BT$ |
|-------------|-----------------|
| A           | 2006.90         |
| B           | -1.460          |

**Table 2.** Experimental values with uncertainties and deviation from calculated values.

| $T$<br>K | $\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$<br>$\text{kg} \cdot \text{m}^{-3}$ | $\rho_{\text{exp}} - \rho_{\text{calc}}$<br>$\text{kg} \cdot \text{m}^{-3}$ | Ref.         |
|----------|---|---|--------------|
| 273.15   | $1608.20 \pm 2.00$  | 0.10  | 1914-dem/pin |
| 288.15   | $1586.00 \pm 2.00$  | -0.20   | 1914-dem/pin |
| 293.15   | $1579.00 \pm 2.00$  | 0.10  | 1914-dem/pin |

**Table 3.** Recommended values.

| $T$<br>K | $\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$<br>$\text{kg} \cdot \text{m}^{-3}$ |
|----------|---|
| 270.00   | $1612.7 \pm 2.3$  |
| 280.00   | $1598.1 \pm 1.9$  |
| 290.00   | $1583.5 \pm 1.9$  |
| 293.15   | $1578.9 \pm 2.0$  |
| 298.15   | $1571.6 \pm 2.2$  |

**5-Iodo-1-hexene****[22212-06-2]****C<sub>6</sub>H<sub>11</sub>I****MW = 210.06****766****Table 1.** Experimental value with uncertainty.

| $T$<br>K | $\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$<br>kg·m <sup>-3</sup> | Ref.       |
|----------|--|------------|
| 273.15   | 1497.00 ± 3.00   | 1864-wur-3 |