#### **Product information**

# **BUTADIENE-1.2**

### CAS NO.

590-19-2

### **APPLICATIONS & PROPERTIES**

Butadiene-1.2 is a high-purity allenolefin.

## **TRANSPORT & LOGISTICS**

The product is available in tank- and special containers.

### **APPLICATION FIELDS**

1,2-butadiene can be used as process additive (polymerization regulator) for manufacturing of SBRs, moreover as building block in special syntheses.

#### **SUPPLY DATA**

| Property                     | Value     | Unit    | Method            |
|------------------------------|-----------|---------|-------------------|
| Butadiene-1.2                | min. 97.0 | % (m/m) | B2643-AA 04-013 * |
| cis-Butene-2                 | max. 2.5  | % (m/m) | B2643-AA 04-013 * |
| Butadiene-1.3                | < 0.05    | % (m/m) | B2643-AA 04-013 * |
| C <sub>5</sub> -Hydrocarbons | max 0.3   | % (m/m) | B2643-AA 04-013 * |
| Alkynes (total)              | max. 300  | mg/kg   | B2643-AA 04-013 * |
| Propadiene                   | max. 100  | mg/kg   | B2643-AA 04-013 * |
| Residue after evaporation    | max. 500  | mg/kg   | B2643-AA 04-043 * |
| p-tertButylcatechole         | 100 - 150 | mg/kg   | B2643-AA 04-042 * |

<sup>\*</sup> in-house method



## PHYSICAL DATA (LITERATURE DATA)

| Property  | Value(ca.) | Unit    |
|---|------------|---------|
| Mol weight (C <sub>4</sub> H <sub>6</sub> )     | 54.09      | g/mol   |
| Density referred to air under normal conditions | 1.95       |         |
| Boiling point at 1013 hPa                       | 10.9       | °C      |
| Critical temperature                            | 178.9      | °C      |
| Critical Pressure (at 20°C)                     | 43.6       | bar     |
| Specific heat (gaseous at 25 °C)                | 1.471      | kJ/kg K |
| Specific heat (liquid at boiling point)         | 2.247      | kJ/kg K |

## **DENSITY (LIQUEFIED GAS)**

| °C    | - 10  | 0     | 10    | 20    | 30    | 40    |
|-------|-------|-------|-------|-------|-------|-------|
| g/cm³ | 0.687 | 0.675 | 0.664 | 0.652 | 0.639 | 0.626 |

## **VAPOUR Pressure (at 20°C)**

| °C         | -10 | 0   | 10  | 20   | 30   | 40   | 50   | 60   | 80   |
|------------|-----|-----|-----|------|------|------|------|------|------|
| mbar (hPa) | 432 | 662 | 981 | 1411 | 1976 | 2701 | 3613 | 4739 | 7743 |

#### **HEAT OF EVAPORATION**

| °C         | 0      | 20     | 40     | 60     | 80     |
|------------|--------|--------|--------|--------|--------|
| mbar (hPa) | 451.45 | 430.79 | 408.49 | 384.15 | 357.19 |

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