EASTMAN

# Technical Data Sheet

## Eastman™ n-Butanol

## Applications

- Agriculture intermediates
- Architectural coatings
- Auto oem
- Auto plastics
- Auto refinish
- Building materials
- Coil coatings
- Construction chemicals
- Furniture
- General industrial coatings
- Graphic arts
- Industrial maintenance
- Lubricants
- Marine
- Paints & coatings
- Process solvents
- Protective coatings
- Specialty chemicals
- Wood coatings

## Key Attributes

- Excellent reactivity as an intermediate
- Improves flow and gloss in cellulose lacquers and amino baking finishes
- Inert - Food use with limitations
- Inert - Nonfood use
- Latent solvent in cellulose lacquers
- Non-HAP
- Readily Biodegradable
- Slow evaporation rate

## Product Description

Eastman™ n-Butanol (n-Butyl alcohol), a four carbon straight chain oxo alcohol, is a medium-boiling liquid that is useful as a chemical intermediate and as a solvent for ambient dry and baking coatings. It is widely used as an etherification alcohol in the manufacture of amino resins that are used as curing agents in baking and physical-drying finishes. Eastman™ n-Butanol is also a very effective latent solvent for cellulosic lacquers and ambient-cured enamels, reducing formulation viscosity and providing excellent flow and leveling during film formation.

The chemical substances for this product are listed as Inert Ingredients Permitted for Use in Nonfood Use Pesticide Products, and in Food Use Pesticide Products with limitations, under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). For details on specific permissions, click here .

## Typical Properties

| Property | Typical Value, Units |
|---|---|
| **General** | |
| Acidity | |
| as Acetic Acid | 0.005 wt % max. |
| Assay | 99.8 wt % min. |
| Autoignition Temperature | 355 °C (671 °F) |
| Azeotropes | |
| BP | 92.7 °C (198.9 °F) |
| Wt % Water | 42.5 wt % |
| Boiling Point | |
| @ 760 mm Hg | 116-119 °C (241-246 °F) |
| Color | |
| Pt-Co | 10 max. |
| Critical Pressure | 43.7 ATM |

| | |
|---|---|
| Critical Temperature | 289.8 °C |
| Critical Volume | 275 ml/g·mol |
| Electrical Resistance | <0.2 Megohms |
| Empirical Formula | $C_4H_{10}O$ |
| Evaporation Rate | |
| (ether = 1) | 24.2 |
| (n-butyl acetate = 1) | 0.5 |
| Expansion Coefficient, per °C | |
| @ 20°C | 0.0009 |
| Flash Point | |
| Tag Closed Cup | 36 °C (97 °F) |
| Freezing Point | -89 °C (-129 °F) |
| Hansen Solubility Parameters | |
| Hydrogen Bonding | 7.7 |
| Nonpolar | 7.8 |
| Polar | 2.8 |
| Total | 11.3 |
| Heat of Combustion | -587 kcal/g·mol |
| Heat of Vaporization | 10330 cal/g·mol |
| Liquid Heat Capacity | |
| @ 25°C | 42.52 cal/(g*mol)(°C) |
| Liquid Viscosity | |
| @ 20°C | 3 cP (mPa·s) |
| Maximum Incremental Reactivity (MIR) | 3.34 |
| Molecular Weight | 74.12 |
| Nitrocellulose Solubility | Latent |
| Refractive Index | |
| @ 20°C | 1.4 |
| Solubility | |
| in Water, @ 20°C | 7.9 wt % |
| Water in, @ 20°C | 20.8 wt % |
| Specific Gravity | |
| @ 20°C/20°C | 0.81 |
| Surface Tension | |
| @ 20°C | 24.6 dynes/cm |
| Vapor Density | |
| (air = 1) | 2.6 |
| Vapor Pressure | |
| @ 20°C | 5.5 mm Hg |
| @ 55°C | 6.1 kPa |
| TLV PPM 1998 | C50 |
| Wt/Vol | |
| @ 20°C | 0.81 kg/L (6.75 lb/gal) |

# Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.