EASTMAN

# Technical Data Sheet

## Eastman™ Isobutanol

## Applications

- Architectural coatings
- Auto oem
- Auto plastics
- Auto refinish
- Furniture
- General industrial coatings
- Graphic arts
- Hard surface care
- Industrial fuel imeds
- Packaging components non food contact
- Paints & coatings
- Process solvents
- Protective coatings
- Water treatment industrial
- 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
- Non-SARA
- Readily biodegradable
- Slow evaporation rate

## Product Description

Eastman™ Isobutanol (isobutyl alcohol) is a medium boiling, slow evaporating, colorless liquid that is useful in organic synthesis, as a chemical intermediate and as a solvent in coating applications. Isobutanol is similar in properties to n-butyl alcohol and may be used as a supplement or replacement for it in many applications. As a latent solvent in lacquers and ambient-cured enamels, isobutanol is effective in reducing the viscosities of many formulations while simultaneously promoting flow and leveling. It is also used as an etherification alcohol in the manufacture of amino resins that are used as curing agents in baking and physical-drying finishes.

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 | 0.003 wt % max. |
| Assay | 99.5 wt % min. |
| Autoignition Temperature | 416 °C (781 °F) |
| Azeotropes | |
| BP | 89.8 °C (193.6 °F) |
| Wt % Water | 33 wt % |
| Boiling Point | |
| @ 760 mm Hg | 106-109 °C (223-228 °F) |
| Color | |
| Pt-Co | 5 max. |
| Critical Pressure | 41.2 ATM |
| Critical Temperature | 262.8 °C |
| Critical Volume | 269 ml/g·mol |
| | <0.2 Megohms |

| | |
|---|---|
| Electrical Resistance | |
| Empirical Formula | $C_4H_{10}O$ |
| Evaporation Rate | |
| (ether = 1) | 20.2 |
| (n-butyl acetate = 1) | 0.6 |
| Expansion Coefficient, per °C | |
| @ 20°C | 0.00096 |
| Flammability Limits in Air, % by Volume | |
| Lower @ 51°C | 1.7 Vol % |
| Upper @ 94°C | 10.6 Vol % |
| Flash Point | |
| Tag Closed Cup | 29 °C (85 °F) |
| Freezing Point | -108 °C (-162 °F) |
| Hansen Solubility Parameters | |
| Hydrogen Bonding | 7.8 |
| Nonpolar | 7.4 |
| Polar | 2.8 |
| Total | 11.1 |
| Heat of Combustion | -583.4 kcal/g·mol |
| Heat of Vaporization | 9834 cal/g·mol |
| Liquid Heat Capacity | |
| @ 25°C | 42.92 cal/(g*mol)(°C) |
| Liquid Viscosity | |
| @ 20°C | 4 cP (mPa·s) |
| Maximum Incremental Reactivity (MIR) | 2.24 |
| Molecular Weight | 74.12 |
| Nitrocellulose Solubility | Latent |
| Refractive Index | |
| @ 20°C | 1.4 |
| Specific Gravity | |
| @ 20°C/20°C | 0.8 |
| Solubility | |
| in Water, @ 20°C | 9.5 wt % |
| Water in, @ 20°C | 14.3 wt % |
| Surface Tension | |
| @ 20°C | 22.8 dynes/cm |
| Vapor Density | |
| (air = 1) | 2.6 |
| Vapor Pressure | |
| @ 20°C | 9 mm Hg |
| @ 55°C | 9.5 kPa |
| TLV PPM 1998 | 50 |
| Wt/Vol | |
| @ 20°C | 0.80 kg/L (6.68 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.

*herein waives any of the Seller's conditions of sale.*

4/3/2018 12:19:01 PM