OXEA

OXEA PRODUCT HANDLING GUIDE

n-Butanol
CAS # 71-36-3

n-Butanol is a clear, flammable liquid with an odor similar to rubbing alcohol. It is soluble in most organic solvents and has limited solubility in water. n-Butanol is a stable substance under recommended storage conditions.

n-Butanol is available from OXEA in the following packages:

- UN 1A1/X1.2/300 55-Gallon Carbon Steel Drums
- DOT 111A100W1 Tank Cars
- DOT MC 307 or DOT 407 Tank Trucks
- Ship Tank and Barge

Storage

Recommended Blanketing	Air[1,2] or Dry Nitrogen[1,2,3]
Recommended Temperature	Ambient
Recommended Pressure	Atmospheric
Bulk Quantities	Outside, detached tanks
Small Containers	Cool, dry, well ventilated area

Handling

- Thoroughly review Safety Data Sheet before handling product.
- Keep containers closed when not in use.
- Open containers slowly to allow any excess pressure to vent.
- Keep away from heat, sparks, flame, or other sources of ignition.
- Protect small containers from physical damage.
- Use proper electrical grounding and bonding procedures when loading, unloading, and transferring.[1]
- Refer to the OXEA Safety Data Sheet for more information on materials to avoid.
- Use spark-resistant tools.
- Electrical equipment and circuits in all storage and handling areas must conform to requirements of national electrical code (Articles 500 and 501) for hazardous location.

See the National Fire Protection Agency (NFPA) #30 "Flammable and Combustible Liquids Code" and consult with qualified fire protection specialists to determine specific storage tank design requirements. Refer to the OXEA Safety Data Sheet for more specific health and environmental information and refer to the OXEA Product Descriptions for additional physical properties and general product information. Safety Data Sheet and Product Descriptions for n-Butanol are available through your OXEA sales representative.

1. Refer to NFPA #77 "Static Electricity" for proper electrical grounding procedures.
2. See the National Fire Protection Agency (NFPA) #30 "Flammable and Combustible Liquids Code" and consult with qualified fire protection specialists to determine specific storage tank design requirements.
3. Blanketing may be used to retain quality in long-term storage conditions

This information is based on our present state of knowledge and shall be intended to provide general notes on our products and their field of application. It shall therefore not be construed as guaranteeing specific characteristics of the products described and/or their suitability for a particular application. Any existing industrial property rights shall be observed. The quality of our products is warranted under our General Conditions of Sale.

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Materials of Construction for Storage and Transportation

Item	Recommended	Acceptable
Tank	Carbon Steel (rust free)	Stainless Steel[1] Lined Carbon Steel[2], Aluminum[3]
Piping	Carbon Steel	Stainless Steel[1], Aluminum[3]
Valves	Carbon Steel	Stainless Steel[1], Aluminum[3]
Pumps	Cast Iron, Carbon Steel	Stainless Steel[1]
Relief Valves	Stainless Steel[1]	-
Gaskets	Glass Filled PTFE[4]	Graphite
Pump Seals	Single mechanical seal: Stainless steel/Hastelloy C-276 metallic components, Kalrez O-rings	-
Valve Packing	PTFE[4]	Graphite
Pipe End Connections	Welded and flanged system	Threaded with PTFE[4] tape thread lubricant
Heat Exchanger	Product Side: Carbon Steel	Product Side: Stainless Steel[1]
Hoses	Stainless Steel[1]	EPDM[5], Aluminum[3]
Tank Truck	Stainless Steel[1]	Aluminum[3]
Tank Car	Carbon Steel	Stainless Steel[1] Lined Carbon Steel[2], Aluminum[3]
Barge	Stainless Steel[1]	Carbon Steel, Zinc Silicate or Epoxy Lined Carbon Steel
Ship Tank	Stainless Steel[1]	Zinc Silicate or Epoxy Lined Carbon Steel

1. Type 304 or 316 Stainless Steel.
2. Lining refers to a high baked phenolic.
3. May be used if temperature does not exceed 150°F (66°C)
4. Polytetrafluoroethylene.
5. Ethylene – Propylene – diene – monomer – (peroxide cured grade).

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