

### **OQ PRODUCT HANDLING GUIDE**

# n-Propanol CAS # 71-23-8

n-Propanol is a colorless, flammable liquid with a typical alcohol odor. It is miscible with alcohols, ethyl ether, and water. It is stable under recommended storage conditions. n-Propanol is available from OQ 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 <sup>1,2</sup> or Dry Nitrogen <sup>1,2,3</sup>
Recommended Temperature	
Maximum	100°F (37.8°C)
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.<sup>1</sup>
- Refer to the OQ 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 OQ Safety Data Sheet for more specific health and environmental information and refer to the OQ Product Descriptions for additional physical properties and general product information. Safety Data Sheet and Product Descriptions for n-Propanol are available through your OQ sales representative.

- Refer to NFPA #77 "Static Electricity" for proper electrical grounding procedures.
- 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.
- 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 <sup>1</sup>
		Lined Carbon
		Steel <sup>2</sup> , Aluminum <sup>3</sup>
Piping	Carbon Steel	Stainless Steel <sup>1</sup> , Aluminum <sup>3</sup>
Valves	Carbon Steel	Stainless Steel <sup>1</sup> , Aluminum <sup>3</sup>
Pumps	Cast Iron, Carbon Steel	Stainless Steel <sup>1</sup>
Relief Valves	Stainless Steel <sup>1</sup>	Carbon Steel
Gaskets	Glass Filled PTFE <sup>4</sup>	Graphite
Pump Seals	Single mechanical seal:	-
	Stainless steel/Hastelloy C-276	
	metallic components, Kalrez O-	
	rings	
Valve Packing	PTFE <sup>4</sup>	Graphite
Pipe End Connections	Welded and flanged system	Threaded with PTFE <sup>4</sup>
		tape thread lubricant
Heat Exchanger	Product Side:	Product Side:
	Carbon Steel	Stainless Steel <sup>1</sup>
Hoses	Stainless Steel <sup>1</sup>	EPDM <sup>5</sup> , Aluminum <sup>3</sup>
Tank Truck	Stainless Steel	Aluminum <sup>3</sup>
Tank Car	Carbon Steel	Aluminum <sup>3</sup> ,
		Lined Carbon
		Steel <sup>2</sup> , Stainless
		Steel <sup>1</sup>
Barge	Stainless Steel <sup>1</sup>	Carbon Steel, Zinc
		Silicate or Epoxy Lined
		Carbon Steel
Ship Tank	Stainless Steel <sup>1</sup>	Zinc Silicate or
		Epoxy Lined Carbon Steel
1 Type 204 or 217 Stainless	2 May be used if	E Ethylona Branylana

- Type 304 or 316 Stainless Steel.
- 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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Conditions of Sale.