



## n-Valeric Acid – CAS # 109-52-4

n-Valeric Acid is a colorless, combustible liquid that has an unpleasant, penetrating odor. It is soluble in water at 20°C. Valeric Acid is stable under recommended storage conditions. Valeric Acid will burn when heated or exposed to an ignition source.

Valeric Acid is available from OXEA in the following packages:

- High Density Polyethylene 220 Liter Drum 1H1/Y1.9/200/Jahr/D/BAM/11407/Schüt z1

- DOT MC 307 or DOT 407 Insulated Tank Trucks
- IMO 1 ISO Tank

### Storage

|                         |   |
|-------------------------|---|
| Recommended Blanketing  | Dry Air <sup>1,2</sup> or Dry Nitrogen <sup>1,2,3</sup> |
| Recommended Temperature |   |
| Maximum                 | 130°F (54°C)  |
| Minimum                 | 32°F (0°C)  |
| Recommended Pressure    | Atmospheric   |
| Bulk Quantities         | Outside, detached tanks                                 |
| Small Containers        | Cool, dry, well ventilated area                         |

### Handling

- Thoroughly review Material 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 OXEA Material 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 Material 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. Material Safety Data Sheet and Product Descriptions for n-Valeric Acid 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.

# PRODUCT HANDLING GUIDE

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## n-Valeric Acid

### Materials of Construction for Storage and Transportation

| Item                 | Recommended   | Acceptable            |
|----------------------|---|-----------------------|
| Tank                 | Stainless Steel <sup>1</sup>  | -                     |
| Piping               | Stainless Steel <sup>1</sup>  | -                     |
| Valves               | Stainless Steel <sup>1</sup>  | -                     |
| Pumps                | Stainless Steel <sup>1</sup>  | -                     |
| Relief Valves        | Stainless Steel <sup>1</sup>  | Alloy 20              |
| Gaskets              | Glass Filled PTFE <sup>4</sup>  | Graphite              |
| Pump Seals           | Single mechanical seal:<br>Stainless steel/Hastelloy C-276<br>metallic components, Kalrez O-rings | -                     |
| Valve Packing        | PTFE <sup>4</sup>   | -                     |
| Pipe End Connections | Welded and flanged system   | -                     |
| Heat Exchanger       | Product Side:<br>Stainless Steel <sup>1</sup>   | -                     |
| Hoses                | Stainless Steel <sup>1</sup>  | -                     |
| Tank Truck           | Stainless Steel <sup>1</sup>  | Aluminum <sup>3</sup> |
| Tank Car             | Stainless Steel <sup>1</sup>  | Aluminum <sup>3</sup> |
| ISO Tank             | Stainless Steel <sup>1</sup>  | -                     |
| Barge                | Stainless Steel <sup>1</sup>  | -                     |
| Ship Tank            | Stainless Steel <sup>1</sup>  | -                     |

1. Type 304 or 316 Stainless Steel.
2. Use Alloy-C-276 seal components for long service life
3. Use 3000, 5000, 6000 series Aluminum when the temperature does not exceed 120°F (49°C).
4. Polytetrafluoroethylene.

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

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