



Medical

## Pall Lipipor™ TNA Filter Set



### *Air-eliminating filter set for lipid-containing nutritional IV administration*

#### **Features**

- ▶ Pall Lipipor 1.2 µm nylon membrane
- ▶ Smooth housing design
- ▶ Sterile, non-pyrogenic fluid pathway
- ▶ Phthalate-free tubing extension

#### **Benefits**

- ▶ Removes particles and microorganisms
- ▶ Retains oversized lipid droplets
- ▶ Eliminates air (independent of filter position)
- ▶ Easy to prime and use
- ▶ Increases patient comfort

## Specifications

### Filter Media

1.2 µm Pall Lipipor™ Nylon membrane

### Priming Volume

1.5 mL

### Sterility

Sterile and non-pyrogenic fluid pathway

### Tubing Extension

Phthalate-free

### Maximum Recommended Flow Rate

300 mL/hour

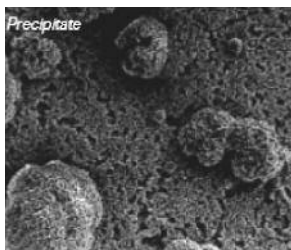
### Maximum Working Pressure

Approximately 22 psi (1.5 bar)

## Product Features

The Pall Lipipor TNA filter set is an air-elimination filter for use with any nutritional IV administration containing lipids and lipid emulsions. It is indicated for the removal of particulate debris, microbial contaminants, and entrained air that may be found in solutions intended for IV administration. It provides patient protection against particulate contamination, oversized lipid droplets<sup>1</sup>, microorganisms<sup>2,3</sup>, and air<sup>4</sup>.

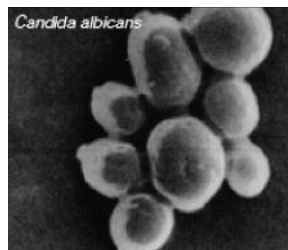
## Contamination of Parenteral Nutrition Preparations Can Have Serious Consequences



• Particulate contamination arises from infusion systems and components due to manipulations<sup>5</sup>, and interactions between components<sup>6</sup>. Particles can be deposited in the microvasculature of the lungs and other organs,

resulting in serious clinical consequences<sup>7,8</sup>. Gross precipitation in admixtures, which may not be visible when lipid is present, has proven fatal in cases<sup>6</sup>.

- Oversized lipid droplets arise in admixtures due to instability. Large numbers may lodge in the lung microvasculature and produce an embolic syndrome<sup>1</sup>.



- Microbial contamination can inadvertently arise in infusion systems due to manipulations. Parenteral nutrition is an acknowledged risk for fungemia with *Candida spp.* being among the most common organisms involved<sup>8</sup>. *Malassezia furfur* is also

emerging as an increasingly important pathogen in neonates<sup>3</sup>, having demonstrated the ability to grow in lipid-containing preparations<sup>3,9</sup>.

## Ordering Information

Description	Reorder Code		Packaging	
	USA	Europe	USA	Europe
Pall Lipipor TNA Filter for Parenteral Nutrition	TNA1	TNA1E	40/case	50/case

## References

1. Driscoll, D.F., Bacon, M.N., & Bistran, B.R. Effects of in-line filtration on lipid particle size distribution in total nutrient admixtures. *JPEN J Parenter Enteral Nutr.* 1996; 20:296-301.
2. Barnett, M.I. Filtration of lipid-containing total parenteral nutrition (TPN) admixture. *Clin Nutr.* 1995; 14:49.
3. Robinson, R. & Ball, P. Presented at the New Zealand Hospital Pharmacists Association Meeting. October, 1996, Auckland, NZ.
4. Coppa, G.F., Gouge, T.H., & Hofstetter, S.R. Air embolism: a lethal but preventable complication of subclavian vein catheterization. *JPEN J Parenter Enteral Nutr.* 1981; 5:166-8.
5. Foroni, L.A., Rochat, M.H., Trouiller, P., & Calop, J.Y. Particle contamination in a ternary nutritional admixture. *J Parenter Sci Technol.* 1993; 47:311-4.
6. United States Food & Drug Administration Safety Alert: Hazards of precipitation associated with parenteral nutrition. April 18, 1994.
7. Walpot, H., Franke, R.P., Burchard, W.G., Agternkamp, C., Muller, F.G., & Mittermayer, C., et al. Particulate contamination of infusion solutions and drug additives within the scope of long-term intensive therapy. *Anaesthesist.* 1989; 38:544-8.
8. Lehr, H.A., Brunner, J., Rangoonwala, R., & Kirkpatrick, C.J. Particulate matter contamination of intravenous antibiotics aggravates loss of functional capillary density in postischemic striated muscle. *Am J Respir Crit Care Med.* 2002; 165:514-20.
9. Vazquez, J.A., Sanchez, V., Dmuchowski, C., Dembry, L.M., Sobel, J.D., & Zervos, M.J. Nosocomial acquisition of *Candida albicans*: an epidemiologic study. *J Infect Dis.* 1993; 168:195-201.



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