



These specifications apply to the acceptance and loading of tank trailers at LyondellBasell (LYB) facilities, as well as at third-party facilities contracted by LYB

| <b>Product Handling Equipment Specification (PHES) - Tank Trailer</b>      |   |
|--|---|
| <b>Commodity [select from drop-down]:</b>                                  | <b>Tert-Butyl Hydroperoxide (TBHP)</b>  |
| SDS Number:  | BE115   |
| <b>Refer to SDS section 14 for this product's transport classification</b> |   |
| <b>General Tank Truck Information:</b>                                     |   |
| DOT Specification:   | North America only; MC 312, DOT 412, dedicated to LYB TBHP and serviced by carrier Dana Transport only; trailer ID's: D-792, D-793, D-4370, D-4371, D-4372, D-4373, D- 4374, D-4375, D-4585, D-4586, D-4597, D-4854; any other equipment must be preapproved by LYB   |
| Insulation:  | Required  |
| Heating Capabilities:  | Not Required  |
| Gasket Material:   | Teflon, Simriz 7295, or Kalrez only; must be in all flanges and openings of trailer; all flanges and openings must have seal point, and remain sealed for full and residue transport  |
| Connections/Fittings:  | All must be stainless steel with dust caps containing seal points, on all outlets of the trailer, capable of being sealed with a 1/8" cable seal  |
| Liquid Connection:   | 3" male kamvolok (dry connect) with sealable dust cap; liquid line modified to bottom rear grade-level access @ 90° angle; must have seal points; must have 2 isolation valves, 1 close to trailer, and 1 upstream of liquid connection; pneumatic emergency shut-off valve on liquid line next to trailer  |
| Vapor Connection:  | 2" male kamvolok (dry connect) with sealable dust cap; vapor line piping modified to bottom rear/grade-level access @ 90° angle, with pressure gauge and isolation valve upstream of fitting  |
| Nitrogen Padding:  | Nitrogen purged with minimum 15 psig nitrogen pad upon arrival to load; trailer must provide leak free seal pre-and post-loading  |
| Tank Cleanliness:  | Dedicated to LYB TBHP service only; if a trailer requires cleaning, a cleaning certificate must be presented with the trailer; after any maintenance, a maintenance certificate must be presented with the trailer that indicates type of maintenance performed; trailer must be properly filled with polyethylene saddles per DOT-SP 6610 (special permit) |

|                           |  |
|---------------------------|--|
| Strapping Chart:          | Required   |
| Hoses:                    | Hoses are not required to load at LYB facilities; there may be consignee-specific hose requirements listed on the LYB shipping document  |
| Additional Appurtenances: | Dome lid must be a solid bolted flange; tank trailers are modified by the carrier to comply with this PHES; return seals must be sent with the driver, who must ensure they're applied (either by driver or consignee personnel) once offloaded; driver must be trained in TBHP handling and be on Dana's list of qualified drivers; must have current LYB Shipping Notice document, Transwide call-off, or carrier manifest to be accepted for loading; driver must arrive at pickup point at the designated/pre-scheduled time; driver must always notify LYB of any requested light loading due to potential exceedence of gross legal load weight, or variance from consignee's ordered quantity; trailer must be appropriately marked per DOT-SP 6610 (special permit), and driver must possess a copy of this permit at all times in both full and residue transport |
| Misc. Restrictions:       | No additional personnel in tractor unless team driver(s); pets are strictly prohibited; customer pickup (CPU/collect) orders are prohibited; LYB TBHP shall only be loaded into LYB-arranged dedicated trailers listed above   |
| Acceptable Prior Cargoes: | Not applicable   |
| Prohibited Prior Cargoes: | Not applicable   |
| Disclaimer:               | LYB reserves the right to reject any trailer based on its actual condition or suitability as determined during on-site inspection and in accordance with US DOT regulations.   |