



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

Product Handling Equipment Specification (PHES) - ISO Container	
Commodity [select from drop-down]:	Tert-Butyl Hydroperoxide (TBHP)
SDS Number:	BE115
Refer to SDS section 14 for this product's transport classification	
General ISO Container Information:	
DOT Specification:	IM 101 / UN T-23 (stainless steel ISO container) modified per regulations to transport TBHP and in full compliance with T-23 specifications; maximum 24K liter capacity; ISO container must be in dedicated service to LYB TBHP and pre-approved by LYB; data plate information must be legible and correctly stamped; inspection documentation must be with driver as additional proof of inspection/test date verification to prevent equipment rejection; ISO container must contain the appropriate amount of polyethylene saddles per special permit DOT-SP 6610
Insulation:	Required
Heating Capabilities:	Prohibited; product to be kept away from heat
Gasket Material:	Teflon or Simriz 7295, or Kalrez only; must be in all openings and flanges of the ISO container; all openings and flanges must be sealed
Connections/Fittings:	All must be stainless steel or compatible with TBHP, with solid closures containing seal points; protective housing (if applicable) and dome lid cover must be capable of being sealed with a 1/8" cable seal
Liquid Connection:	Export shipments: Four 3" bolted solid flange with locking washers to provide solid closure; top loading only; bottom loading equipment requires written pre-approval from LYB; Domestic Shipments: May allow for bottom loading/unloading, with 3 solid flanged closures preferred; closures must be capable of being sealed with a 1/8" cable seal; piping protective housing required or must have written approval from LYB making exception; emergency shutdown equipment is required
Vapor Connection:	1.25" to 1.5" ball valve with plug; closures must be capable of being sealed with a 1/8" cable seal; valve must be within a protective housing, or have written approval from LYB showing exception; per special permit DOT-SP 6610, (x4) four 2.5" diameter pressure relief valves required next to the manway and positioned to remain in the vapor space during normal operations; pressure settings: (x3) three set at 0.75 bar, and (x1) one set at 0.60 bar
Nitrogen Padding:	Nitrogen purged for drying, moisture, and flammable atmosphere control; clean ISO container must have a 5-7 psig pad upon arrival at loading facility; re-load/reuse container may return with last off-loading pressure or minimum of 5-7 psig

Tank Cleanliness:	If container is cleaned, a cleaning certificate is required showing the container is clean, dry, and odor free; if ISO container is a re-load, the prior LYB shipping documents are required as proof that last-contained was LYB material; if dedicated, ISO container must be on file with loading site as dedicated to LYB TBHP
Strapping Chart:	Required; level gauge indicator also preferred
Hoses:	Hoses are not required to load at LYB facilities, and are not available for transport with ISO containers for export shipments
Additional Appurtenances:	Carrier should always note carrier's instructions field of the LYB shipping document for any additional equipment, driver's requirement, etc.; all opening to ISO container must be capable of being sealed with 1/8" wire cable seal; product labeling is required with container/driver upon arrival to loading facility; driver must ensure product name and all labelling is applied to both sides of ISO container prior to leaving loading facility; ISO container must be marked in accordance with special permit DOT-SP 6610; driver must maintain a copy of special permit DOT-SP 6610 at all times when in full or residue transport; driver must have current and matching LYB shipping notice, Transwide call-off, or manifest document, and arrive at pickup point at the scheduled time to be accepted for loading; driver must always notify LYB of any requested light loading due to potential exceedence of gross legal weight
Misc. Restrictions:	No additional personnel in tractor unless team driver(s); pets are strictly prohibited
Acceptable Prior Cargoes:	Not applicable
Prohibited Prior Cargoes:	Not applicable
Disclaimer:	LYB reserves the right to reject any ISO container based on its actual condition or suitability as determined during on-site inspection and in accordance with applicable transport regulations