



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]:	Propylene Glycol USP (PGUSP)
SDS Number:	BE129
Refer to SDS section 14 for this product's transport classification	
General ISO Container Information:	
DOT Specification:	IM 101, UN T-11 (stainless steel ISO container); maximum 24K liter capacity; ISO container must be in dedicated service to PGUSP and approved by LYB; prior to service dedication, the last 3 prior cargoes must be presented to LYB Technical Services for their approval; a non-dedicated ISO container requires LYB's written pre-approval prior to loading or transportation; 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
Insulation:	Preferred, not required
Heating Capabilities:	Preferred, not required
Gasket Material:	White butyl rubber, white EDPM, virgin Teflon, or Teflon encapsulated; dome gasket must give a leak tight seal upon completion of loading
Connections/Fittings:	All must be stainless steel, solid flange or plug must be attached to the ISO container, as applicable; must be capable of being sealed with a 1/8" wire cable seal; dome lid and valve cover must capable of being sealed with 1/8" wire cable seal
Liquid Connection:	Export shipments: Blind flange on bottom outlet if ISO container is to be loaded on rail or vessel; bottom outlet must have a solid closure; dust caps are not acceptable; Domestic Shipments: Flanged 3" male camlock (quick connect) with sealable dust cap; bottom rear loader; both shipment types must be capable of being sealed with a 1/8" wire cable seal
Vapor Connection:	1.5" ball valve with bull plug; bull plug must be attached with chain/cable and valve must be able to be sealed with a 1/8" cable seal; protective cover for manifold and vapor connection must have the capability to be sealed; this applies for export or domestic shipments
Nitrogen Padding:	Nitrogen purged for drying and moisture 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 kosher/food grade 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 PGUSP; for CPU/collect orders: must meet the specifications herein, and the last 3 prior cargoes must be presented to LYB Technical Services for their approval prior to loading
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 labeling is applied to both sides of ISO container prior to leaving loading facility; 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; driver responsible for re-sealing ISO container for residue transport once offloaded
Misc. Restrictions:	No additional personnel in tractor unless team driver(s); pets are strictly prohibited
Acceptable Prior Cargoes:	Food or USP grade products (examples: PGUSP, Glycerine (synthetic only), Ethyl Alcohol (non-SDA or non-denatured only), Phosphoric Acid (food grade only), Sucrose, Fruit Juices or Juice Concentrates, Honey, Sorbitol, Molasses, Vinegar, Potable Water, Polypropylene Glycols (food grade only))
Prohibited Prior Cargoes:	Known contaminants of PGUSP (examples: Gasoline or Gasoline-Based Products, Oils or Oil-Based Products, Monomer or Monomer-Based Products, Amine or Amine-Based Products)
Disclaimer:	Acceptance by LYB of a particular prior cargo does not relieve the carrier of responsibility for any contamination of the product resulting from that prior cargo; the purpose of restrictions on prior cargoes is to prevent contamination of PGUSP by any material that would be considered an objectionable impurity, even in trace amounts; 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