Quality Assurance and Regulatory Affairs
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September 10, 2026

UN/DOT Design Type Certification

Report No:	P-308-XX-260910	**Test Type:**	Periodic Retest
Test Date:	September 10, 2026	**Expiration Date:**	September 10, 2027
Test Facility:	Greif – Alsip, IL Technical Center 4300 W 130th Street Alsip, IL 60803		

Attached are our laboratory test result sheets of the UN/DOT Performance Test on the plastic drums that were conducted at the above test facility location.

This design is manufactured under the registered symbol GBC at the following locations: Bradley Pd, Hazleton, Houston-Plastic, Lavonia, Lockport, Mt. Sterling.

These sample containers, that were made with the proper components, passed the required tests for the following UN Marking(s):

1H1/Y1.9/150

Thank you and best regards.

John Foryt
Director, Quality Assurance and Regulatory Affairs

This test report is the property of Greif. The know-how, methods and techniques disclosed in this report are confidential information which can only be used by those persons with specific written authorization from Greif.

Quality Assurance and Regulatory Affairs
United Nations/IMO/DOT
Performance Test

DESIGN TYPE Details

Report No:	P-308-XX-260910
Date Tested:	September 10, 2026
Qualification Date:	June 22, 2016
Drum Style:	GP55-3
Drum Type:	Plastic 1 Pc Tight Head
UN Certified Marking(s):	1H1/Y1.9/150
Diameter:	23 inches
Overall Height:	34.8 inches
Tare Weight:	20.4 lbs
Gallon Capacity:	55 gal
Resin:	GB1
Lifting Ring:	None
Poly Bag:	None

Additional components - see next page

Drum Construction:
Drum is blow molded by forming a molten tube (referred to as the parison or preform) of thermoplastic resin which is placed within a drum mold cavity and inflated with compressed air to take the shape of the cavity, which is then cooled before removing from the mold. If present in the design, the mold has inserted collars that are preformed to shape the molded threaded inserts. When top is removable, the cover will have a sealing gasket inserted in the channel around the periphery of the cover. Covers are fixed with a locking ring.

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DESIGN TYPE Details - Additional Components

Report No: P-308-XX-260910
Date Tested: September 10, 2026
UN Certified Marking(s): 1H1/Y1.9/150

The following components have undergone DOT qualification testing as described in the Original Design Type Result Sheet using the same conditions and procedures, and meet the requirements of §178.601(g)(5):

FITTINGS

Size	Plug Description	Plug Material	Plug Gasket
2"	NPS	Poly	EPDM Gasket
2"	BTR	Poly	EPDM Gasket
56x4	BTR	Poly	EPDM Gasket
2"	NPS	Poly	Viton Gasket
2"	BTR	Poly	Viton Gasket
2"	BTR	Poly	Silicone

Notes:

1. Plug elastomer gaskets include EPDM, BUNA. All other gasket materials should be denoted in the tested design. For specific plug gasket and torque instructions, please refer to your product specific closure instruction on the packing slip.
2. See attached closure notification for torque values for applicable rings on test drum.
3. If torques for components are not included on the attached closure, the components were supplied by the customer for testing. Proper closure of the unit is the responsibility of the shipper.
4. Closures supplied by Greif for this design have been fully qualified throughout the packaging design history, and the closures on this report may not include all qualified closures for this design. Please consult Greif Quality Assurance and Regulatory Affair for specific questions regarding closure qualification. In the event a closure that is not qualified by Greif is substituted by the customer, the certified mark should be voided and removed from the package. It is the responsibility of the customer to ensure that any substituted closures meet the requirement of CFR 49 178.601 and this report cannot be used as evidence of compliance to the certified marking.

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RETEST RESULT SHEET

Report No:	P-308-XX-260910	
Date Test:	September 10, 2026	
Qualification Date:	June 22, 2016	
Drum Style:	Plastic 1 Pc Tight Head	
UN Certified Marking(s):	1H1/Y1.9/150	
Maximum Capacity:	216.8 Litres	57.2 Gallons
Capacity:	208.5 Litres	55 Gallons
Test Mass - Gross with water:	221.7 kg	488.7 Lbs
Tare:	9.4 kg	20.8 Lbs
Net:	212.3 kg	467.9 Lbs

Dynamic Compression Test (49 CFR 178.606)
Package Preparation: Empty Package
Conditioning: Ambient

Total Mass:	(2.4 Units * 413 kg Each) 1.5 x Static Load = 1,485 kg
Results:	3 Units Passed

Drop Test (49 CFR 178.603)
Package Preparation: Fill to 98% minimum capacity, Anti-freeze solution of specific gravity no less than 0.95
Conditioning: 24 Hrs container and contents at -18°C (0°F)

Drop Height:	1.9 Metres / 74.9 Inches
Diagonal Top Drop | On fitting at 6 o'clock:	3 Units Passed
Flat Drop | On sidewall, with fitting at 6 o'clock :	3 Units Passed

Vibration Test (49 CFR 178.608)
Capable of withstanding, without rupture or leakage, the vibration test procedure in 49 CFR 178.608.

Leakproofness Test (49 CFR 178.604)
Package Preparation: Drums are to be empty
Conditioning: Ambient

Pressure Applied:	20 kPa / 3.0 psi
Duration:	5 Minutes
Results:	3 Units Passed

Hydraulic (Hydrostatic) Test (49 CFR 178.605)
Package Preparation: Filled with ambient temperature water greater than 12 degree celsius
Conditioning: ambient

Pressure:	150 kPa / 21.8 psi
Duration:	30 Minutes
Results:	3 Units Passed

TEST RESULTS CERTIFIED BY:
Quality Assurance and Regulatory Affairs

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John Foryt
Director, Quality Assurance and Regulatory Affairs

TIGHT HEAD CLOSURE NOTIFICATION

Product Type: PTH **Country:** USA

Pursuant to the requirements of the Department of Transportation in CFR 49 Part 178.2(c)(1), this is your notification of the closing method used for the containers sold to you. This method of closure should be used to ensure that your containers have been closed in the same manner as when they were initially tested.

Your product may adversely affect container materials, bung threads or closing devices. Product compatibility with the container is the customer(s)/filler(s) responsibility.

These instructions for closure are based upon the closure methods used to enable these containers to pass the United Nations test requirements as outlined by the UN marking on the package.

The closure recommendations do not take into account any hazards present in your facility, or the handling, filling or shipping methods used by your facility.

Any containers used for packaging hazardous materials should be inspected prior to filling and shipment. Containers with obvious damage or deterioration should not be filled or shipped.

To Close:

1. Openings in tight head plastic drums **must be** fitted with plugs bearing NPS and/or buttress threads.
2. Plugs must be fitted with gaskets appropriate to the plug size and design.
3. Plugs must be placed into the appropriate openings and tightened to the following torque levels:
   a. 2” NPS or Buttress = 20 ft-lbs
   b. 2.6” NPS or Buttress = 18 ft-lbs
   c. 56x4 European Buttress = 20 ft-lbs
   d. 3/4" NPS or Buttress = 9 ft-lbs

   Manufacturer Specific:
   e. Micromatic 2” poly fittings = 20 ft-lbs
   f. Micromatic 2” steel Buttress dip tube valve = 25 ft-lbs
   g. Taylor Cain 2” Buttress, micro valve or dry break valve = 25 ft-lbs
   h. Taylor Cain 2” NPS or 2” Buttress agitator fitting = 20 ft-lbs
   i. Taylor Cain 3/4" or 1” fitting = 2 ft-lbs
   j. Dynamix 2” Buttress agitator fitting = 20 ft-lbs
   k. AS Plastics 2” Buttress dip tube plug or 2” NPS Combo plug = 24.34 ft-lbs
   l. AS Plastics 3/4" fitting = 3.69 to 4.43 ft-lbs
   m. ASV Plastics 2” Buttress Dry Break, Microvalve or Agitator fitting = 25 ft-lbs
   n. Colder Products DrumQuik Buttress drum insert = 20 ft-lbs
4. Drums closed in this manner have met the UN performance test requirements as specified in the container markings.