

# Reagent BOTTLES

REAGENT BOTTLES



**chimie  
Grande**  
Chemistry that Connects

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# TLG® Reagent Bottles

## Leakproof Guarantee

TLG® bottles and closures are designed with a strong and semi-buttress thread design. We offer a leakproof guarantee as we manufacture and test both components routinely as part of our quality inspection process. TLG® closures do not corrode, or cause contamination.



## High Quality Resin

The TLG® range of bottles & carboys are made from the highest quality resin that meet medical grade standards. Our resins are selected to minimize additives and reduce potential leachables. We don't use plasticizers or fillers, thus creating a safe storage space for your valuable samples.

## Shatter-proof Safe

Plastics contain lower concentrations of trace elements extractables than glass and are less likely to break. TLG® containers amplify this advantage, creating rugged containers that assure you the protection you expect for your valuable work.

# Discover Reliable Bottles

The TLG® Range of Bottles are the classic standard storage containers. They offer the ultimate solutions in containment & protection. Available in 3 different resins, they are ensured to be leakproof, strong and durable.

## Threads

On both bottles & closures are smooth, continuous semi buttress threads.

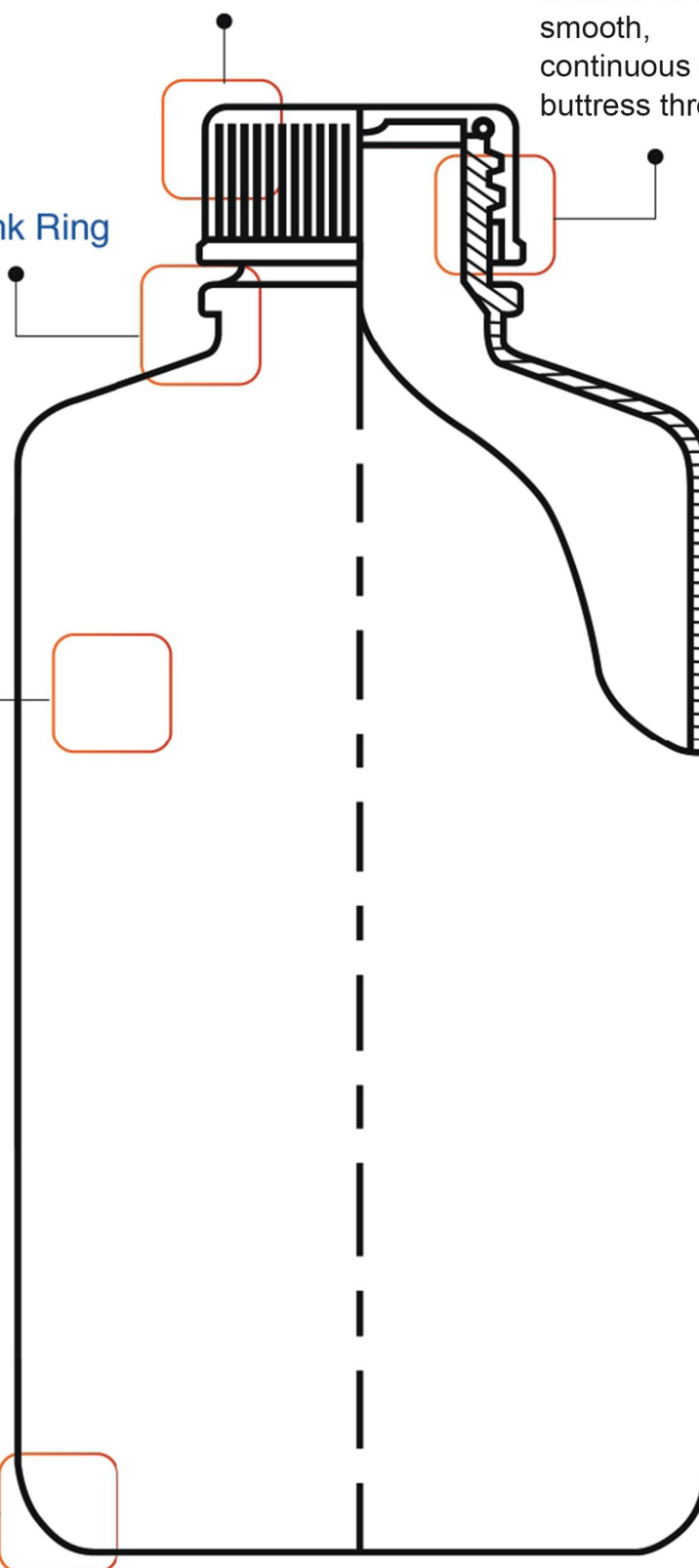
## Closure

## Shrink Ring

## Uniform Thickness

## Bottom

curved inner corners for superior cleaning



# Narrow Mouth Bottles

## High Density Polyethylene (HDPE)

- Safe for freezer storage down to -100°C
- Resistant to most corrosives

Catalog No.	Capacity	Price
CS-C1615030	30 ML	Case of 72 for \$33.90
CS-C1615060	60 ML	Case of 72 for \$36.90
CS-C1615125	125 ML	Case of 72 for \$46.02
CS-C1615250	250 ML	Case of 72 for \$70.11
CS-C1615500	500 ML	Case of 48 for \$72.20
CS-C161501L	1000 ML	Case of 24 for \$56.58

## Low Density Polyethylene (LDPE)

- More clear than HDPE
- Flexible with excellent impact resistance

Catalog Number	Capacity	Cap Size
CS-C1614030	30 ML	20 mm
CS-C1614060	60 ML	20 mm
CS-C1614125	125 ML	24 mm
CS-C1614250	250 ML	24 mm
CS-C1614500	500 ML	28 mm
CS-C161401L	1000 ML	38 mm

## Polypropylene (PP)

- Suitable with autoclaving at 121°C
- Improved chemical resistance and clarity
- Resistant to most corrosives and suitable for a wide variety of laboratory uses
- Approved for use from -100°C to 121°C

Catalog Number	Capacity	Cap Size
CS-C1616030	30 ML	20 mm
CS-C1616060	60 ML	20 mm
CS-C1616125	125 ML	24 mm
CS-C1616250	250 ML	24 mm
CS-C1616500	500 ML	24 mm
CS-C161601L	1000 ML	38 mm

## Narrow Mouth High Density Polyethylene (HDPE)

- Safe for freezer storage down to -100°C
- Resistant to most corrosives

Catalog Number	Capacity	Cap Size
CS-C1617030	30 ML	20 mm
CS-C1617060	60 ML	20 mm
CS-C1617125	125 ML	24 mm
CS-C1617250	250 ML	24 mm
CS-C1617500	500 ML	28 mm
CS-C16171L	1000 ML	38 mm





# Wide Mouth Bottles

## High Density Polyethylene (HDPE)

- Safe for freezer storage down to -100°C
- Resistant to most corrosives

Catalog Number	Capacity	Cap Size
CS-C1621030	30 ML	28 mm
CS-C1621060	60 ML	28 mm
CS-C1621125	125 ML	38 mm
CS-C1621250	250 ML	43 mm
CS-C1621500	500 ML	43 mm
CS-C16211L	1000 ML	63 mm
CS-C16212L	2000 ML	83 mm

## Low Density Polyethylene (LDPE)

- More clear than HDPE
- Flexible with excellent impact resistance

Catalog Number	Capacity	Cap Size
CS-C1623030	30 ML	28 mm
CS-C1623060	60 ML	28 mm
CS-C1623125	125 ML	38 mm
CS-C1623250	250 ML	43 mm
CS-C1623500	500 ML	53 mm
CS-C16231L	1000 ML	63 mm
CS-C16232L	2000 ML	83 mm

## Polypropylene (PP)

- Suitable with autoclaving at 121°C
- Improved chemical resistance and clarity
- Resistant to most corrosives and suitable for a wide variety of laboratory uses
- Approved for use from -100°C to 121°C

Catalog Number	Capacity	Cap Size
CS-C1622030	30 ML	28 mm
CS-C1622060	60 ML	28 mm
CS-C1622125	125 ML	38 mm
CS-C1622250	250 ML	43 mm
CS-C1622500	500 ML	43 mm
CS-C16221L	1000 ML	63 mm















## Wide Mouth High Density Polyethylene (HDPE)

- Safe for freezer storage down to -100°C
- Resistant to most corrosives

Catalog Number	Capacity	Cap Size
CS-C1624030	30 ML	20 mm
CS-C1624060	60 ML	20 mm
CS-C1624125	125 ML	24 mm
CS-C1624250	250 ML	24 mm
CS-C1624500	500 ML	28 mm
CS-C16241L	1000 ML	38 mm



## Resin Quick Reference Chart

	Polypropylene (PP)	Polypropylene Copolymer (PPCO)	Low Density Polypropylene (LDPE)	High Density Polypropylene (HDPE)
High Temperature 	135°C 	121°C 	80°C 	120°C 
Low Temperature 	0°C 	-40°C 	-100°C 	-100°C 
Autoclavable	Y	Y	N	N
Microwavable	Y	Marginal	Y	N
Dry Heat (Oven)	N	N	N	N
Freeze	N	Y	Y	Y
Flexibility	Rigid	Moderate	Excellent	Rigid
Clarity	Translucent	Translucent	Translucent	Translucent
Recycling Symbol				

## Autoclaving Conditions

	121°C
	20 min
	15 psi

### CAUTION

Before autoclaving set the closure on top of the container without engaging the threads. During decompression phase of the autoclaving cycle, the pressure within the vessel must be allowed to equalize. Any material stacked or placed over the closure has a potential to cause a vacuum to form, resulting in collapse.

## Chemical Resistance for TLG® Labware

Classes of Substances at Room Temperature	HDPE	LDPE	PC	PMMA	PP	PS	PSF	PTFE	PVDF	TPX*
Acids, Dilute or Weak	E	E	E	G	E	E	E	E	E	E
Acids, Strong and Concentrated	E	E	N	N	E	F	G	E	E	E
Alcohols, Aliphatic	E	E	G	N	E	E	G	E	E	E
Aldehydes	G	G	F	G	G	N	F	E	E	G
Bases	E	E	N	F	E	E	E	E	E	E
Esters	G	G	N	N	G	N	N	E	G	G
Hydrocarbons, Aliphatic	G	F	F	G	G	N	G	E	E	F
Hydrocarbons, Aromatic	G	F	N	N	F	N	N	E	E	F
Hydrocarbons, Halogenated	F	N	N	N	F	N	N	E	N	N
Ketones	G	G	N	N	G	N	N	E	N	F
Oxidizing Agents, Strong	F	F	N	N	F	N	G	E	G	F

### Chemical Resistance Classification

**E = Excellent** - 30 days of constant exposure cause no damage. Plastics may even tolerate for years.

**G = Good** - Little or no damage after 30 days of constant exposure to the reagent.

**F = Fair** - Some effect after 7 days of constant exposure to the reagent like crazing, cracking, loss of strength or discoloration.

**N = Not recommended** - Not for continuous use. immediate damage may occur.



### Resin Code

<b>HDPE</b>	High-density polyethylene
<b>LDPE</b>	Low-density polyethylene
<b>PC</b>	Polycarbonate
<b>PMMA</b>	Polymethyl methacrylate
<b>PP</b>	Polypropylene
<b>PS</b>	Polystyrene
<b>PSF</b>	Polysulfone
<b>PTFE</b>	Polytetrafluoroethylene
<b>PVDF</b>	Polyvinylidene fluoride
<b>TPX</b>	Polymethylpentene

TPX is the registered Trade Mark of Mitsui & Co. Ltd.

# Leak Testing

## Leakage test by Vacuum Method

### Product Criterion

Bottles / Vials upto 1000 ml.

### Sample Size

One full cycle shot quantity (Twice per shift) or as defined by customer sampling plan.

### Test Equipment

Vacuum Desiccator.

### Test Procedure

1. Fill the bottle / vial with water up to 80% of its brimful volume and secure tightly with closure by hand.
2. Invert the bottle / vial and visually check for any leakage.
3. Keep the bottle for 3 - 5 min in Vacuum Desiccator at 635 mm of Hg.
4. Release the vacuum and check for any trace of water on the threads of bottle or closure.
5. Open the closure and check for any trace of water on the threads of bottle or closure.
6. If no leakage is observed in the testing, the bottles are certified leakproof.

## Leakage test by Gravity Method

### Product Criterion

Bottles / Containers above 1000 ml.

### Sample Size

One full cycle shot quantity (Twice per shift) or as defined by customer sampling plan.

### Test Procedure

1. Fill the bottles with water up to 80% of its brimful volume and secure tightly with closure by hand.
2. Invert the bottle and visually check for any leakage.
3. Leave the bottle for 24 hours in inverted condition.
4. After 24 hours, check bottle for any leakage.
5. Open the closure and check for any trace of water on the threads of bottle or closure.
6. If no leakage is observed in the testing, the bottles are certified leakproof.





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